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Swiss Agency for Development and Cooperation SDC

Evaluation 2009/5

SDC's Contribution towards Biodiversity: Impact in the Andean Region

Annexes and Case Studies

Bern, October 2009

baastel

Annex to Evaluators Final Report

Evaluation of SDC's Contribution towards Biodiversity:
Impact in the Andean Region

Commissioned by the Corporate Controlling Section
of the Swiss Agency for Development and Cooperation (SDC)

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Annex A: Revised Approach Paper

EVALUATION
"SDC's Contributions towards Biodiversity:
Impact in the Andean Region"

1. Background: Biodiversity in SDC and in the Andean Region

"Biodiversity is the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems" (CDB, art. 2).

To deal with inter-linkages of various natures existing at many levels of biodiversity and to reverse the crucial trend of biodiversity degradation is a major challenge for governments, institutions and science. Meeting the challenge is crucial for the future of human societies on earth. Several international Conventions[1], Agreements and international Conferences directly refer to the preservation of species and ecosystems. Commitments have been made to stopping the degradation processes. The multilateral nature of these agreements corresponds to the nature of the challenge of genes, species and ecosystem preservation. It is a crosscutting concern which touches upon many sectors of nature and human activity and establishes links at the local level and between distant regions.

Biodiversity is in itself a resource and a service which can play a major role in poverty alleviation. Biodiversity underpins the ecosystem services that all people ultimately depend on at all levels, from the individual to the global, rich and poor alike. When considered from the perspective of poor people, the local level of biodiversity is important: the distribution and abundance of wild species, the range of crop plants and livestock and the diversity of ecosystem types directly available to them. Biodiversity provides benefits to rural but also to urban poor. Although the majority of the world's poor currently live in rural areas, where they are more directly dependent on ecosystem services for their wellbeing, the rapidly growing proportion that live in urban and peri-urban areas are also ultimately dependent on ecosystem services, both locally and at a distance.

With the UN Conference on Environment and Development in Rio 1992, biodiversity was given a structured framework, the Convention on Biological Diversity (CBD), providing 3 major elements: conservation of biodiversity, the sustainable use of natural resources and the equitable sharing of access and benefits (ABS). Negotiations are still ongoing to have an agreed instrument but the interests between North and South are difficult to bring together.

Recently, with the world concern about climate change, the importance of many ecosystems and the diversity of species have been recognised as key elements both for mitigation and adaptation strategies.

Within the Swiss Constitution, the maintenance of biodiversity and the preservation of ecosystems services is globally recognized as a pillar of sustainable development. Switzerland has recognised relatively early the importance of ecosystems services such as forest ecosystems as well as the need of biodiversity in agriculture. Based on this national expertise and experience, forest sustainable use and watershed protection have received particular attention, in particular in Latin America and to a lesser extend in Asia. In the agro biodiversity sector, a particular emphasis has been put for many years on agro-biodiversity through the CGIAR centres as this has a direct link with the issue of poverty reduction.

[1] UN Convention on Biological Diversity, Ramsar Convention, the International Treaty on Plant Genetic Resources for Food and Agriculture, Rio conference 1992, WSSD Johannesburg 2002 conference, etc.

Transboundary cooperation and ecosystem approach have been promoted for the last 6 years directly or through the Integrated water resource management (IWRM) instruments.

Like many agencies, as a result of the Rio Conference, Switzerland has contributed directly to the Global Environment Facility (GEF) and in addition SDC has integrated biodiversity issues in its own programme by setting up a special fund (Global Environment Programme) to assist the partner countries to implement the Rio conventions. SDC has not defined a particular strategy on biodiversity nor particular goals, biodiversity is often embedded in other SDC instruments such as promotion of livelihood programmes, rural development, etc.

Within SDC and taking into consideration the Andean context two main financial instruments can be identified: Bilateral contribution and Thematic contribution.

In the bilateral, following a concentration process within the GEP, SDC has decided to contribute more precisely to the Biodiversity Convention by concentrating 70% of its financial means on two specific countries, Laos and Bolivia, with as guiding principle the DAC guidelines "Integrating the Rio Conventions into Development Cooperation". Other related documents have been made available to SDC staff members. These are not SDC documents but existing instruments produced by others Agencies such as DFID, IUCN and European Commission[2].

Within the thematic division SDC Environment division (NRE), Biodiversity is treated in the Medium term strategy within two main themes: Agriculture and Environment. Strategic emphasis has been given to:

- Support of partners initiatives to intensify productivity, maintaining and diversifying genetic biodiversity,
- Preservation of ecosystem services and the management of natural habitats which are rich in biological species diversity,
- Economic valuation of ecosystem services as innovation approach,
- Cross-border approaches (local, national, regional).

Considering biodiversity and the Andean specificity, cultural issues are important. Respect for biological diversity implies respect for human diversity. The perceived separation between biological diversity and cultural diversity obscures the reality that both diversities are mutually reinforcing and mutually dependent. Therefore, today there is a wider understanding that reduced diversity in its cultural and environmental dimensions poses a threat to global stability and that it makes the world and its inhabitants increasingly vulnerable. Cultural diversity - as a source of innovation, creativity and exchange - should be regarded as a powerful guarantee of biodiversity.

Recently SDC has been exploring the importance of fiscal tools (incentives, disincentives) in the context of sustainable development in general in collaboration with OECD Poverty Environment Partnership network.

[2] Biodiversity in Development 2001

	SDC average yearly investments (F, M, O, E Budget) in biodiversity related projects and programme				
Targets / lines of action of SDC engagement on Biodiversity	**CHF *1000**	**Inland waters biodiversity**	**Forest biodiversity**	**Mountain biodiversity**	**Drylands biodiversity**
Promotion and conservation of protected area, establishment of corridors between Pas	3'000 + ev. 3'000		Transboundary cooperation through GUP programme (Southern /Eastern Africa, Eastern Europe (Pelister)) and possibly Cohesion funds (Carpathian) ,		
Protection and status of species diversity	350	Bionet programme related to taxonomy			
Conservation & use of genetic diversity of crops and harvested species	8'000	Major focus on agro-biodiversity through core contribution to CGIAR centres for maintenance of ex situ gene banks Global Trust fund			
Promotion of sustainable use of biodiversity products	500		Pelister (Macedonia)		Karité (Mali)
Capacity of ecosystems to deliver goods are maintained	800		Forêts des pins Haiti, Amazonian forests/Condor		
Maintain biological resources that support livelihoods of poor people	10'000	Tangar Haor Bangladesh, Niger Ramsar sites	Agro-biodiversity in Bolivia, Peru, Laos	Andean forest Probona	
Protected the rights of indigenous, access and benefit sharing (ABS)		Transversally partially applied (leadership seco)[3]			
Technology transfer					
Increase financial means	200	Payment for ecosystem services, research of innovative financial instrument			
Promotion of incentives values	600	Greening of fiscal instruments in Pakistan, Morocco, development of legal incentives for promotion biodiversity (ELC-Bonn)			
Promotion of global governance (integration of environmental concern)	2'000	Contribution to IUCN programme to act on UN programme, World bank and other institutions as well as on the private sector			
Promotion of monitoring instruments	200	Promotion of ecological footprint multiple indicator in Africa and in the rest of the world			
Information, formation , capitalisation	600	Agro biodiversity 2008 Campaign on Potato, Biodiversity 2010 Initiative both on capitalisation and awareness programme, information on key publication related to environment and biodiversity (Greenfacts)			
Miscellaneous	6000	Several projects have mentioned relation to biodiversity.			
Total approx.	35'250	Average annual contribution in CHF for Biodiversity			

The total investment of SDC in biodiversity preservation is difficult to assess since it cuts across many others sectors without a specific strategy. Considering the Andean Region, it is estimated that up to 17 projects have worked since 1996 with a direct or indirect biodiversity focus and have invested an approximate amount of CHF 152 millions in activities.

[3] The evaluation does not focus on projects/programmes of SECO. Nevertheless, it is important to mention that other agencies of the Swiss Government have been working on biodiversity in the Andean Region

The areas of SDC intervention on biodiversity in the Andean Region can be divided into the following categories:

- Forestry practices and sustainable management such as Conservation of Forests in the Andean Region,
- Rural development such as Conservation and Use of Andean Tubers,
- Women's empowerment / gender equality,
- Research,
- General capacity building of institutions and individuals, including training and awareness raising on issues relevant to biodiversity,
- Markets.

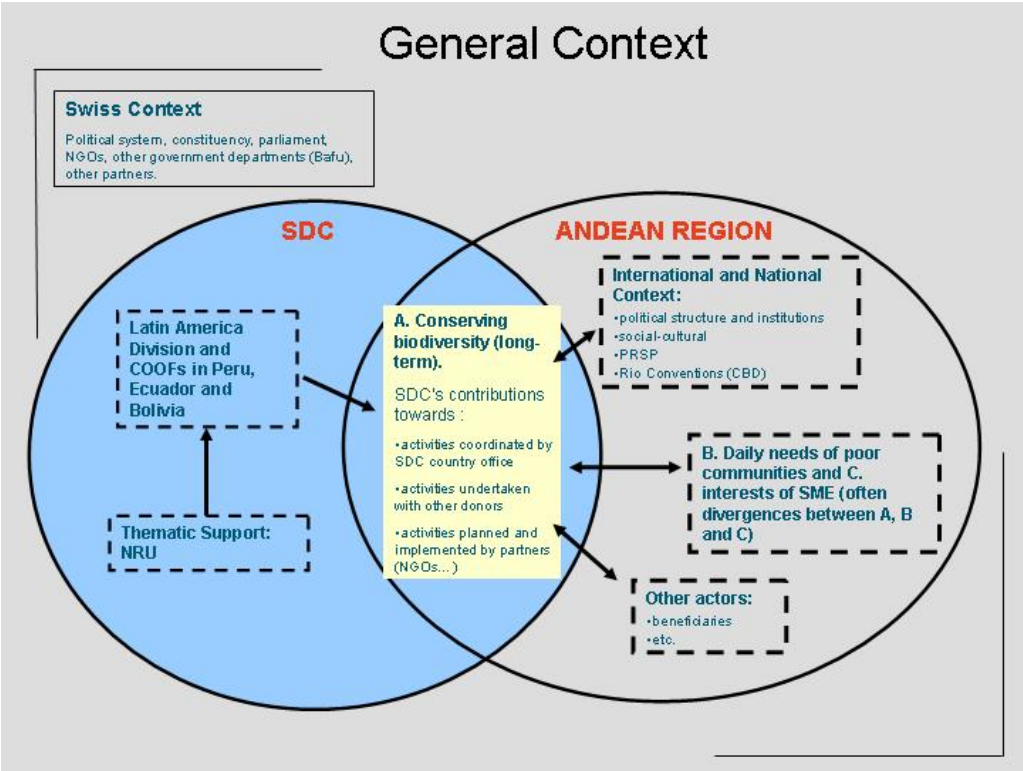
Additional Areas:

- Livelihood interventions,
- Soil and water conservation,
- Communities institution building,
- Good governance.

SDC intervention on biodiversity in the Andean Region (Peru, Bolivia and Ecuador) comprise all the activities coordinated or implemented by different partners:

- Governments (central and local),
- Local communities,
- NGOs (local and international),
- Intercooperation,
- Multilateral organisation such as IUCN,
- CGIAR research centres such the "Centro Internacional de la Papa".

Figure 1 :



Here below is some interesting information on the interlinkages between biodiversity and poverty in the Andean Region:

"(…) Andean landscapes, hence, are the result of intellectual and spiritual constructs that are shaped by the traditional practices and the newer uses given to them by the diverse cultures that inhabit them. As components of managing the broader cultural landscape, novel approaches for the conservation of sacred sites offer insights into the importance of human influence as the driver of global change, as well as the importance of maintaining and promoting local culture, traditional knowledge and spiritual fulfilment in contemporary society (Forman, 1995). Using Andean land-use management practices as models allows us to generalize notions that unify nature and culture as an integrative whole within a protected landscape, as well as to link biodiversity and human intervention as driving forces behind the nature-culture interactions that produced the identities of Andean mountain societies at large (Brown and Mitchell, 1999; Gade, 1999; Brown, Mitchell and Sarmiento, 2000).
The three main Andean regions along the continent-long cordillera (Northern Andes, Central Andes and Southern Andes) differ according to their altitude, humidity and topographic features, being tropical evergreen in the north, dry and less vegetated in the centre, and temperate deciduous in the south. A key ecological feature in the Andes is the existence of slope and fragile lands, nested in young volcanic chains reaching several thousand metres in height. Steep slopes are prone to erosion potential, which is exacerbated when forest cover is removed by deforestation.
These mountainous lands are occupied by traditional cultures that have developed unique strategies to solve their needs for resources and survival. One of us has argued that even the name "Andes" provides a direct clue to understanding the cultural nature of Andean landscapes (Sarmiento, 2002). The built terracing system impressed the first Europeans visiting the region, who described the echelon-like construction along the sides of the mountains with Castilian shorthand as *andenes*, from which the word Andes was popularized to describe the whole cordillera.
In the Andes, culture and nature are interlocked in a closely knit fabric where the resulting mosaics of land uses have provided diversity and stability to the ecology of mountain landscapes. Small isolated mountain communities grew and established specific cultural traits. New species were created by domestication of palatable varieties that were kept with pride by the local inhabitants. New agricultural systems and the use of family- and community-owned recipes led to the unique agro-ecosystem of the Andes, producing plants such as potatoes, different types of corn, ocas, mellocos and other tubers, Tarwi, Quinoa, Amaranths and other grains. As Brown and Mitchell (2000b) note, Andean landscapes are rich with examples of traditional land use that have proven sustainable over centuries, contribute to biodiversity and other natural values, and are living examples of cultural heritage.

(…)

Until quite recently, countries of the Andean region adopted the "national park model" to create and manage protected areas. The preservation of large areas of "unspoiled nature" through ownership of land has often excluded local and indigenous people from planning and implementation processes, and has ignored the importance of their traditional practices in contributing to the great diversity of cultural landscapes found in the Andes, making clear the separation of societal and natural purposes for conservation of biological resources (Sarmiento *et al*., 2000). Typically, protected area authorities have emphasised the use of Western science and management practices and the involvement of formally trained experts. In the process, the valuable knowledge and practices of indigenous peoples and other local communities inhabiting these landscapes have largely been ignored.

(…)

The major problem confronting the conservation of Andean biodiversity and sustaining landscapes is the fragmentation and erosion of traditional systems of agriculture and resource management (Graves, 2000)."[4]

[4] "Cultural landscapes of the Andes: indigenous and *colono* culture, traditional knowledge and ethno-ecological heritage". *Fausto O. Sarmiento, Guillermo Rodríguez and Alejandro Argumedo* http://www.iucn.org

2. Why an Evaluation and Why Now? – Rationale

After several years of engagement on biodiversity issues and of integration of biodiversity into our development cooperation initiatives, SDC thinks that it is important to reach conclusions on whether goals have been reached and to draw some lessons and recommendations for the future.

Moreover, the evaluation will:

- Provide knowledgeable information on SDC biodiversity effects (outcomes and impact) to respect the Switzerland's political tradition of accountability.
- Provide knowledgeable information on SDC biodiversity activities for the international year of biodiversity (2010) as an added value for the anticipated SDC 2010 Biodiversity Initiatives.
- Provide relevant information to the Federal Office for the Environment (FOEN) on the Swiss implementation of international convention on biodiversity.
- Provide reliable information and lessons learned to steer the investments planned for the future, such as the SDC's GEP programme(2008 - 2014).
- Provide, through case studies, relevant data in order to have a baseline about the situation in 2008.
- Provide knowledgeable information on linkages and coming challenges between biodiversity and food security, and between biodiversity and climate change, from the mitigation and the adaptation perspective.

3. Purpose, Focus and Objectives

3.1 Purpose

The main purpose of this evaluation is to investigate the added value of the integration of biodiversity issues and programmes in SDC cooperation strategies in the Andean Region with regard to:

- Local populations: improvement, through biodiversity, of their livelihoods.
- Governments: governmental (micro, meso and macro levels) capacities to influence global and/or international strategies on biodiversity.
- Environment: implementation of the international convention on biodiversity (the 3 objectives of the CBD need to be considered: i) the conservation of biodiversity, ii) the sustainable use of its components, and iii) the fair and equitable sharing of benefits arising out of the utilisation of genetic resources).

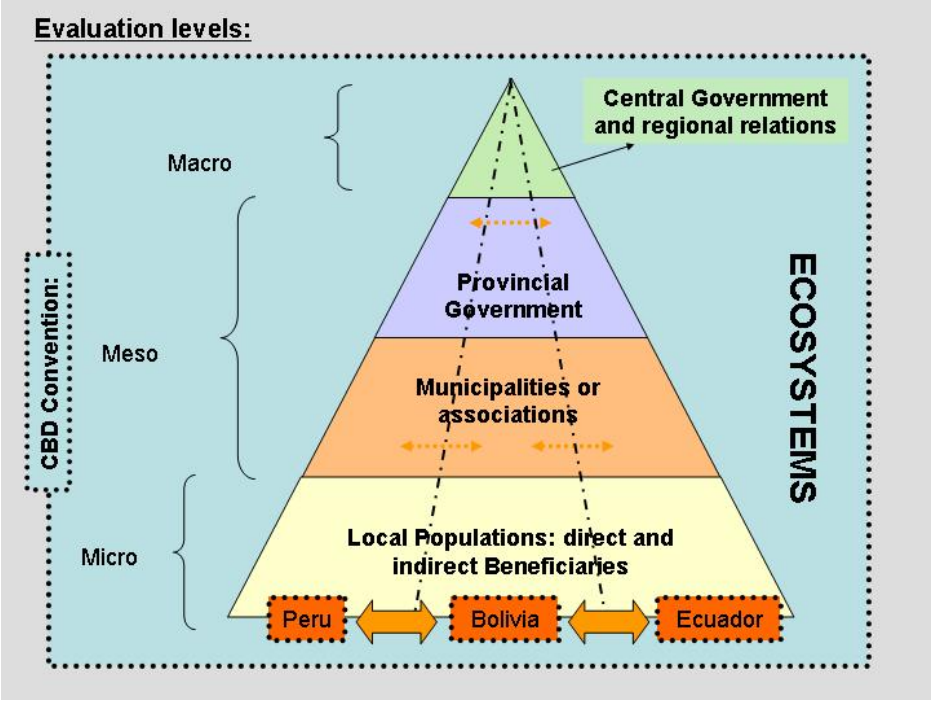
3.2 Focus and Scope

The primary focus of this evaluation, which is a portfolio evaluation, is the outcomes/impacts of SDC biodiversity programmes and projects since 1996.

Biodiversity in the Andean Region (Peru, Bolivia and Ecuador[5]) is understood as comprising all the forest- and agro-biodiversity activities coordinated by SDC COOFs, undertaken with other donors or planned and implemented by partners (such as Intercooperation). The region has been chosen because of past involvement of SDC and future orientation of GEP programme. By focusing on a given country it is expected that the results of the evaluation will be more useful for SDC because of this focus.

[5] The evaluation will cover Ecuador only through a regional project

The evaluation will focus on different levels[6] (*Figure 2*):



The evaluation will focus on:

- SDC biodiversity programmes and projects (micro, meso and macro) since 1996 for the inception report (desk study).
- The macro level and 3-4 programmes[7] at regional and local levels for the field study.

SDC highlights the importance of considering a regional programme (see also footnote n° 8). One of the challenges for SDC is to move beyond national or even district level entities. The regional programme must take into account the multi-dimensionality of ecosystem, the importance of the ecosystem approach and the cross fertilisation potential. It is as well one of the regular recommendations of the CBD.

The evaluation will focus on the effects (outcomes and impacts) of the biodiversity programmes in the Andean Region and will consider the role of the thematic support given by NRE.

3.3 Objectives

The objectives of this evaluation are:

- Provide findings, conclusions and recommendations – for SDC (Headquarters and field), local and international partners, governments (in Switzerland and in the Andean Region) - particularly on:

[6] The CBD is the main framework. Nevertheless, other International Treaties need to be considered if relevant

[7] One ongoing programme (such as ECOBONA which is a regional forest programme. SDC is interested in knowing the added value of a regional programme), one already finished (for instance related to agriculture, such as on potatoes), one not directly related to biodiversity (such as good governance or improvement in livelihoods) but implemented in the same region of one of the other considered programmes. The reason for adding a SDC programme not directly linked with biodiversity is to consider environment as a cross-sectorial theme applicable to all projects and to consider its effects on the achievement of the goals of the programme on biodiversity (Are there factors influenced by other programmes in the same region that can diminish or improve biodiversity?). Consequently, it means taking into account the trans-sectorial nature of environmental issues

    - what has been achieved,
    - how to better position and focus the biodiversity, in relation to the climate change on the one hand and the food security discussion on the other hand, within SDC portfolio and within the Andean Region.
- Provide information (good practices and lessons learned) on how to better improve planning and implementation of new biodiversity activities within SDC portfolio and within the Andean Region, in order to support i) positive impacts, ii) the future investments, iii) the availability of data.
- Identify any "weak links" in the casual chain from inputs to outputs to outcomes, to impacts so as to establish reasons for any findings of little or no impact of the programme.

4. Key Questions

The key questions should contribute to responding to the central issue for SDC:
What have been the effects (outcomes and impacts) on the population, on the political context and on environment of the SDC support on biodiversity in the Andean Region and how can future interventions (in the Andean Region in particular and within SDC portfolio in general) be improved? What are the factors for successful and sustainable impacts?

The evaluation will be structured around DACs standard criteria for evaluation of development aid. Only one question for each of the following criteria will be considered: sustainability, effectiveness and efficiency:

- Sustainability: What is the degree of sustainability of the outcomes depending on the approach (such as partners approach) of the programmes? Would additional strategic inputs or complementary projects have increased the sustainability of investments?
- Effectiveness: What has been the level of effectiveness depending on the spheres focus (entry points. Please consider *Figure 3*)?
- Efficiency: What has been the degree of efficiency?

SDC emphasises the need to focus particularly on the following criteria: **relevance** and **effects**.

4.1 Relevance

Relevance determines if programmes were useful to the beneficiaries and relevant to the biodiversity and the institutions, which is also indicated by their participation and ownership.

Sub-questions:

1. With regard to the needs[8] and demands of the beneficiaries, were SDC programmes and approaches on biodiversity relevant if we consider:
    a. The improvement of livelihoods through an improvement (empowerment) in the control and the access of natural resources which are valuable in term of biodiversity?
    b. The sustainable use of natural resources for an ecologically sustainable development of local populations (multidisciplinary issues)?
    c. The integration of the different socio-cultural groups?
    d. Gender and cultural issues? Were they well addressed?

[8] We consider that support local initiatives is also a way to answer to a need of the beneficiaries

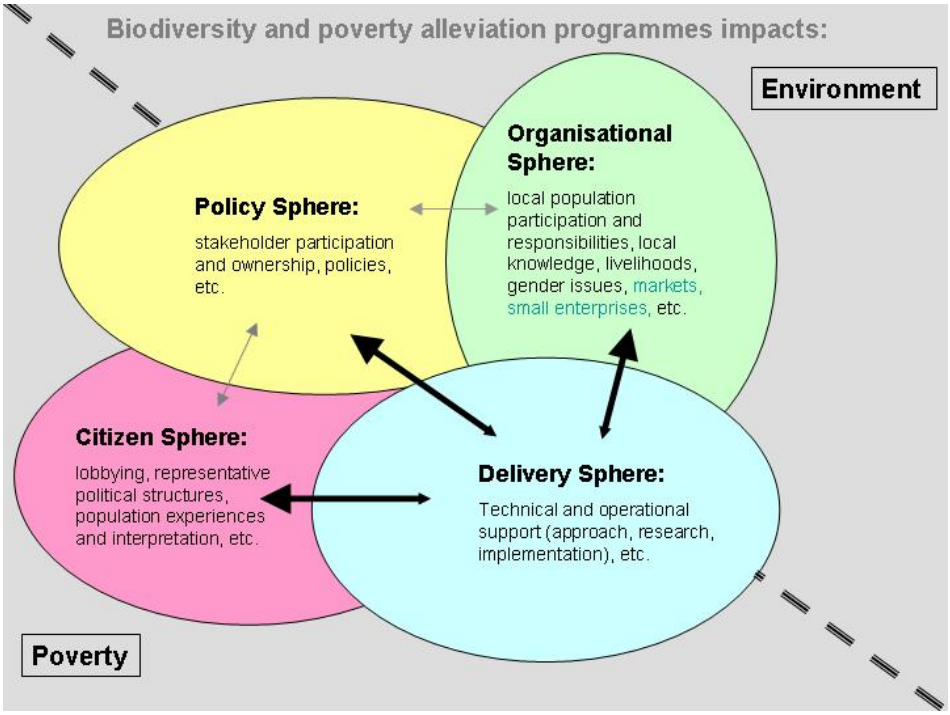
2. With regard to the policies frameworks (political, institutional and/or legal), were SDC programmes and approaches on biodiversity relevant if we consider[9]:
    a. The local level (micro)? Such as the local initiatives/opportunities?
    b. The municipal and provincial level (meso)? Such as the municipal or provincial initiatives/opportunities?
    c. The national and regional level (macro)? Such as the national priorities with regard to biodiversity, the PRSP[10] or the national development plans of the 3 Andean countries considered, the national initiatives, the complementarities between the Swiss CBD obligations and the Andean countries policies?

3. With regard to the environment, were SDC programmes and approaches on biodiversity relevant if we consider :
    a. The biodiversity state?
    b. The risk of loss of biodiversity in the Region?

4.2 Impacts

We emphasize the need and the importance for SDC to look at the impacts when possible. Nevertheless, as we know that it can be difficult to focus on impacts, the questions below refer also to the outcomes. Impacts and outcomes (positive and negative, intended and unintended) refers to the overall effects of the programmes in the region of operation, for beneficiaries as well as indirect beneficiaries at household, community, policies, institutional, regional and national level.

Figure 3:



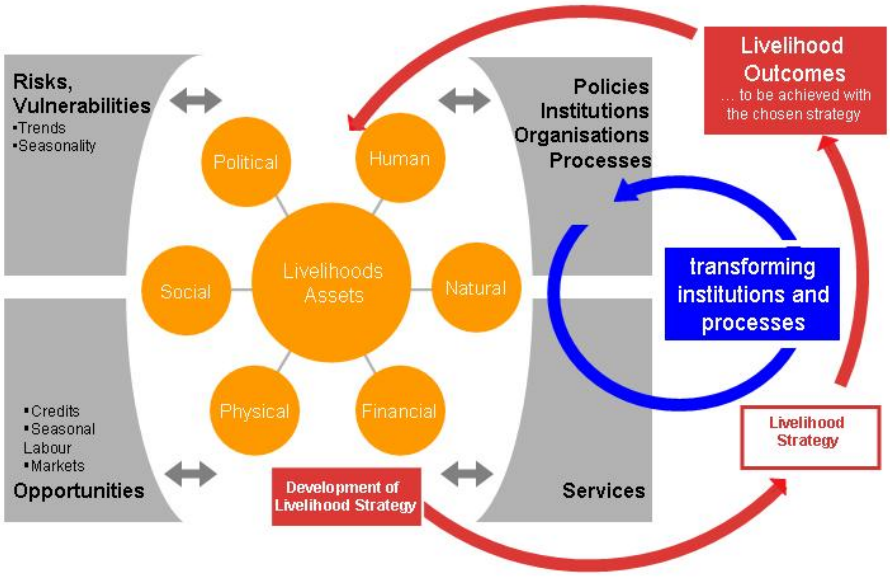
Three important elements of unintended and unforeseen (positive and negative) impacts need to be considered:
Impacts on:

i) biodiversity conservation (direct ecological impacts);
ii) improvement of local population livelihoods (indirect ecological impacts and correlation between socio-economic impacts and environmental impacts); Poor

[9] See also figure 2
[10] Please consider also the World Bank evaluation on PRSP

people, especially those living in areas with low agricultural productivity, depend heavily and directly on genetic, species and ecosystem biodiversity to support their livelihoods. Biodiversity may have a huge impact on well-being (impacts on livelihoods, health, etc.)[11] (*Figure 4*).

Figure 4: **Blending Elements from the Livelihood-Frameworks of DFID and RLS**



iii) support to the implementation of the international convention on biodiversity. The 3 equally complementary and important objectives of the CBD need to be considered: i) the conservation of biodiversity, ii) the sustainable use of its components, and iii) the fair and equitable sharing of benefits arising out of the utilisation of genetic resources).

Sub-questions:

1. With regard to the local beneficiaries or the local area considered by the programmes, what has been the impacts (positive and negative, intended or unintended) of SDC biodiversity programmes on:
   a. The improvement of livelihoods through an improvement (empowerment) in the control and the access of natural resources which are valuable in term of biodiversity?
   b. Equality and gender issues correlated with biodiversity[12]?
   c. Access to and sustainable use of natural resources?
   d. Participation and institutional strengthening (empowerment)?
   e. The different economic sectors in the area considered by the programmes taken into consideration in the field study? Is there any impact on environmental sustainability as a result of changes in the economic activities due to SDC programmes?

[11] However economic development (poverty reduction through alternatives) may also have an impact on biodiversity by reducing pressure, on biodiversity resources and the environment, created from the over-exploitation

[12] It is said that cultural diversity improves biodiversity and that cultural diversity is a necessary condition to preserve biodiversity. The more culture live together, the more biodiversity there is. Therefore the more we support culture diversity, the more we allow biodiversity. Consequently environment programmes may have an effect on societal equality and equity

2. With regard to the policies frameworks (political, institutional and/or legal) and considering decentralisation issues, what has been the impacts of SDC biodiversity programmes on:
    a. The local level (micro)? Such as the local initiatives/opportunities?
    b. The municipal and provincial level (meso)? Such as the municipal or provincial initiatives/opportunities?
    c. The national and regional level (macro)? Such as the national priorities with regard to biodiversity, the PRSP[13] or the national development plans of the 3 Andean countries considered, the national initiatives, the national focal point on biodiversity, the 3 main objectives of the CBD, the benefit sharing policies?

3. With regard to the environment, what has been the impacts (positive and negative) of SDC biodiversity programmes on:
    a. Biodiversity (is there a preservation, an improvement, or a loss of biodiversity in the different sectors considered by SDC programmes on biodiversity?)?
    b. Long-term safeguard of critical environment resources?

4. With regard to the case study: To what extent the elements included in the figure 3 (please consider the political, human and financial spheres) and the figure 4 are correlated and taken into considerations into the SDC programmes? Is the biodiversity considered as a sectorial issue or as a crosscutting issue?

5. Recommendations

Based on the findings and conclusions of the evaluation:

- What are the recommendations for increasing positive impacts (strengths) and diminishing negative impacts (weaknesses) on biodiversity in the Andean Region?
- What are the recommendations on key factors for implementing successful biodiversity conservation while promoting sustainable development for beneficiaries?
- What are the recommendations about what makes biodiversity interventions effective, efficient and sustainable?
- What are the findings and recommendations regarding the beneficiaries and non-beneficiaries at community, policies, institutional, and national level (roles, responsibilities and collaboration)?
- What are the recommendations to better address regional issues, such as the Andean through programmes between Peru, Bolivia and Ecuador? Considering the Figure 3, what is the best entry point?
- How can we improve on the mainstreaming of biodiversity concerns in SDC portfolio?
- What are the recommendations to better position and focus biodiversity convention within SDC's portfolio in general and in Bolivia in particular (GUP).

Two different levels of recommendations need to be considered:

- In the case study report: recommendations for local partners (Government and regional bodies like CAN included) and Cooperation Offices.
- In the main report: recommendations concerning global issues and for SDC Divisions at the Headquarter (LAS and NRE).

[13] Please consider also the World Bank evaluation on PRSP

6. Expected Results

6.1 At Output Level

By the consulting team:

- An Inception Report (please see footnote n°16), max 25 pages excluding appendices; a final report will be produced after receiving comments from E+C,
- A fit to print evaluation report in English containing findings, conclusions and recommendations not exceeding 40 pages plus appendices and including an executive summary,
- A summary according to DAC-Standards not exceeding 2 pages produced by the evaluation team and edited by SDC Division E+C,
- The case study report (in Spanish or English).

By SDC:

- An agreement at Completion Point including the response of the CLP and the Senior Management Response to the recommendations and, if essential, to the conclusions of the evaluation,
- Lessons drawn by the CLP,
- Dissemination of lessons learned (like to DAC).

6.2 At Outcome Level

The evaluation "Biodiversity" is expected to contribute:

- To the analysis of the implementation of the Biodiversity convention within the Andean programmes, by SDC and therefore by the respective countries,
- To the analysis of impacts of the SDC conserving-biodiversity's contributions,
- To the sharpening of SDC's understanding of biodiversity engagement and contributions in the Andean Region,
- To improve planning (also context analysis) and implementation of new biodiversity measures everywhere,
- To knowledge on SDC biodiversity support in general and for the topic biodiversity in the Andean Region in particular,
- To better position and focus biodiversity convention in relation to the climate change and the food security discussion, within SDC's portfolio,
- To increase coordination and coherence with other Swiss actors in place (exchange of lessons learned),
- To increase the availability of data on the Region in order to have baselines for future evaluation,
- To increase lessons learned on good practices (focus on the reasons of success),
- To identify any "added value" and any "weak links" in the casual chain from inputs to outputs to impact so as to establish reasons for any findings of little or no impact of the programme.

7. Partners

7.1 Organisational Set-up and Respective Roles

The **Core Learning Partnership (CLP)** ensures that the consultants have access to all necessary information (documents, interviews). The CLP comments on the evaluation design (inception report) and the draft evaluation report. During the Completion Point Workshop, the CLP discusses the evaluation findings, conclusions and recommendations and negotiates

and approves the Agreement at Completion Point (ACP) and the Lessons Learned. It decides who should be targeted for dissemination.

Department-level Management and the **Director General** of SDC comment in COSTRA on the Agreement at Completion Point.

Consultants contracted by SDC's E+C Division elaborate an evaluation work plan and methodology and an Inception Report, carry out the evaluation according to international evaluation standards, conduct debriefings with stakeholders as appropriate, present a draft of their Evaluators' Final Report to the CLP, follow up on the CLP's feedback as appropriate and submit the Evaluators' Final Report in publishable quality as well as an Evaluation Abstract according to DAC specifications. The evaluation team leader attends the first and second CLP meetings in Switzerland as a resource person.

Division, E+C, SDC, commissions the evaluation, drafts the Approach Paper, drafts and administers the contracts with the evaluators, organizes remarks on the Inception Report, ensures that the evaluators receive appropriate logistical support, including for the organization of field missions, and access to information and organizes the overall process with respect to i) discussion of evaluation results, ii) elaboration of the Agreement at Completion Point and Lessons Learned, iii) publication and iv) dissemination (contact: Valérie Rossi, when absent Anne Bichsel).

7.2 Core Learning Partnership (CLP)

The Core Learning Partnership will consist of the following members:

- SDC Domain Global Cooperation,
  Division Global Programme Food Security : Liliane Ortega (1),
  Division Global Programme Climate Change: Ueli Mauderli (1),
- SDC Domain Regional Cooperation,
  Department Latin America: Simon Zbinden (1),
  Department East Asia: Markus Bürli (1),
  Department West Africa: Marylaure Crettaz (1),
- Intercooperation: Eric Chevallier (1),
- Bern University (CDE): Stephan Rist (1).

Federal Office for the Environment (Robert Lamb) is a resource organisation during all the process.

Valérie Rossi (E+C Division) will facilitate and coordinate de CLP.

8. Process

8.1 Methodology and Approach

The evaluation is to be undertaken as a mixed approach, drawing as extensively as possible on available data for the region combined with thorough qualitative studies. Rigorous qualitative approaches should likewise be employed to analyse and examine the data, explore causality, and to understand project processes, external influences, etc. The evaluation will employ the usual methodologies such as review of relevant literature and evaluation reports about programmes and projects related with Biodiversity in the Andean Region (Bolivia, Peru and Ecuador), review of relevant SDC documents, focus group sessions, communities survey, participatory rural appraisal, semi-structured interviews with staff at SDC headquarter and other partners involved in Bolivia, Peru and Ecuador activities,

case study (**applying impact methods**) with site observations, analysis of data and report writing.

The evaluation will also employ instruments like satellite imagery and/or panoramic photographs and poverty maps which consider different period since 1996. They will also use baselines when there are available (SDC baseline or of other partners).

Care needs to be taken that the methods and approach chosen effectively capture the **results dimension (particularly outcomes and impacts)** at the level of the **beneficiaries** with an emphasis on **the relevance** of the undertaken measures.

As they are often the main causes of biodiversity loss and of unsustainable programmes, during the analysis the consulting team has to keep in mind the correlation and the interdependence between the following issues and factors:

- Social (health included),
- Economic (productivity and incomes),
- Cultural (local norms and knowledge)[14],
- Environmental (management of natural resources included), and
- Institutional (National to regional regulations inspired by the Convention for the Conservation on Biodiversity).

Moreover, as it is an important issue for achieving sustainable development, the evaluation methodology needs to take care to integrate the linkages between:

- the sustainable use of biodiversity and the economic and social development, and vice versa.

The evaluation's target groups are:

- Farmers at communities level (beneficiaries and indirect beneficiaries),
- Community governments, divisional and district line agencies (local and governmental partners in the concerned Region),
- Regional and national authorities.

The evaluation's main fields to consider are related with the objectives of the CBD:

- Conservation of Biodiversity,
- Sustainable Use of biodiversity,
- Benefit Sharing/Technology Transfer.

The main steps of the evaluation are depicted in the table "Main Steps" (see below). The design of the evaluation is planned as an **iterative process**. Both key questions and methods presented in this paper and developed by the selected evaluation team in an evaluation proposal[15] and further in an inception report[16], are to be adapted in close collaboration with the Core Learning Partnership (CLP).

[14] CBD recognizes that humans, themselves exhibiting a diversity of cultures, are an integral component of ecosystems. Please consider also footnote n°12

[15] The availability of **relevant baselines** (with socio-economical and environmental data) on the Andean Region need to be considered already in the evaluation proposal

[16] As mentioned before, the inception report will consider a documentary study as well as interviews (surveys and/or phone interviews). The inception report will also retrace the main assumptions, hypotheses for the programmes as well as targets and indicators. Almost all the important programmes will be considered during the Inception Report. While 3-4 programmes will be considered during the field study. The evaluation team may suggest a frame for the Inception Report

The main inputs for the evaluation design are (see graph below):

- Approach Paper and Evaluation Proposal,
- SDC Biodiversity in the Andean Region's programmes and projects Documents.
- Inception Report,
- First Meeting of the CLP,
- Feedback of the Inception Report,
- Interviews in Switzerland.

Based on these inputs the evaluation team is expected:

- To finalize the evaluation design,
- To finalize the ToR for the local evaluators.

For explanatory remarks on sequence and responsibilities see chapters 7.1. and 8.2.

8.2 Main steps – Schedule

Activity	**Date**	**Responsible**
Evaluation Program approved by COSTRA	2007	
Preparatory meeting (discussion on the evaluation focus, CLP members, etc.)	October	E+C (SDC Evaluation + Controlling Division)
Draft of the AP	December/January 2008	E+C
First discussion on the AP and constitution of the CLP	February	E+C
Call for offers	May	E+C / Evaluators
Analyse of the evaluation proposals	June	E+C
Contracts signed with evaluators	July	E+C
Documentary Study	September/October	Evaluators
Qualitative interviews with stakeholders and former programme staff (expatriate and local staff)	October	Evaluators
Inception Report and **1st CLP** meeting: presentation of the evaluation methodology (by the consultant) and CLP comments on the Inception Report	December	Evaluators / CLP / E+C
Finalization of the inception report (incorporation of SDC comments)	December	Evaluators
Logistic and administrative preparation of the evaluation mission	December	E+C / Evaluators / LAS
Case Studies	January 2009-February	Evaluators
End of mission workshop in Bolivia	February	Evaluators / E+C
Data analysis and writing draft report	February-March	Evaluators
2nd CLP Meeting: Discussion of Draft Report	March	Evaluators / CLP / E+C
Final Report, incorporation of final comments	March	Evaluators
3rd CLP Meeting: Discussion on Recommendations; Agreement at Completion Point	April	CLP / E+C
SDC Management Response	March	E+C
Publication	Mai	E+C

8.3 Evaluation Team

The **evaluation team** is to consist of at least two international evaluators and two national evaluators (from Bolivia, Peru or Ecuador). The team should comprise both genders. The evaluators are expected to have the following evaluation and subject matter expertise and regional experience:

- Up-to-date knowledge on environmental issues (rural development, agroforestry, agriculture and natural resource management), international agreements such as the Convention on Biological Diversity, good governance.
- Strong analytical and editorial skills and ability to synthesize,
- Professional evaluation experience, particularly on impact level,
- Experience with satellite imagery and/or panoramic photographs and poverty maps interpretation and analysis.

The international evaluators are expected to have:

- Field experience in Latin America,
- Ability to work well in English and Spanish,
- Ability in steering complex processes involving beneficiaries,
- Experience from impact studies or impact research in South America,
- Experience with evaluation of livelihoods and poverty alleviation measures, as well as with cross-cutting issues (gender, environment, participation and good governance).

The case study evaluators are expected to have:

- Willingness to contribute to a team effort and to cooperate with the international team leaders,
- Field experience in the Andean Region,
- Not to be close associates of SDC.

9. Reference Documents

9.1 SDC and Related

A documentation list will be prepared by E+C, LAS and NRE.

As a starting point for the Evaluation Proposal, please consult the SDC website: http://www.deza.admin.ch/

9.2 Other Publications

The evaluation team will consider other publications relevant for the evaluation. Here below are some relevant websites:
http://www.cipotato.org/artc/artc_series_spa_pubs.asp
http://www.comunidadandina.org/endex.htm
http://www.fan-bo.org/en/biodiversa.php
http://www.iucn.org/
http://www.oecd.org/document/22/0,2340,en_2649_34435_2086550_1_1_1_1,00.html
World Resource Institute, Ranganathan J., Raudsepp-Hearne C., Lucas N., Irwin F., Zurek M., Bennett K., Ash N., West P., *"Ecosystem Services, A guide for Decision Makers"*, 2008.

9.3 Resource Persons

A list of resource persons will be prepared by E+C, LAS and NRE including backstopping institutions, consulting services, partners and researchers engaged in SDC Biodiversity programmes and projects in the Andean Region.

Annex B: Detailed Evaluation Matrix

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
Relevance Relevance determines if programmes were useful to the beneficiaries and relevant to the biodiversity and the institutions, which is also indicated by their participation and ownership.				
With regard to the needs and demands of the beneficiaries, were SDC activities and approaches on biodiversity relevant for:				
The improvement of livelihoods, through an improvement (empowerment) in the control and access to biodiversity	▪ Extent to which targeted improvements of livelihoods were coherent with expressed needs of beneficiaries (especially in terms of control on biodiversity resources and access to resources)	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus groups and PRA[17] ▪ Mapping/coherence analysis of targeted improvements in view of the needs	▪ Programme documents ▪ Documents presenting analysis of local needs, if available. ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Beneficiaries (direct and indirect) ▪ All sources above	TBD, based on detailed information to be made available at inception phase on programme target groups and coverage
The sustainable use of BD for an ecologically sustainable development of local populations (multidisciplinary issues)?	▪ New practices and uses targeted by SDC approaches and programmes for local populations ▪ Extent to which issues of ecological sustainability were considered in the design and selection of actions	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus groups and PRA	▪ Programme documents ▪ SDC Programme and project managers ▪ Regional and national authorities ▪ Government officials ▪ Beneficiaries (direct and indirect)	Same as above
With regard to the policies frameworks (political, institutional and/or legal), were SDC activities and approaches on biodiversity relevant for:				
The national and regional level (macro)? Such as the national priorities with regard to biodiversity, the PRSP or the national development plans of the 3 Andean countries considered, the national initiatives, the complementarities between the Swiss CBD obligations and the Andean countries policies?	▪ Level of coherence between objectives of SDC support and its approaches and the objectives those various plans, strategies, etc	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Mapping/Coherence analysis (Table form)	▪ National BD strategies, PRSPs, national development plans, SDC policies, Programme documents, etc ▪ Government officials ▪ Regional and national authorities ▪ Based on all sources above	Key stakeholders

[17] Participatory Rural Appraisal (PRA)

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
With regard to the environment, were SDC activities and approaches on biodiversity relevant for				
The biodiversity conservation and uses	▪ Level of coherence between the components of BD under threat in the region and the biodiversity targets of the SDC programme	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions ▪ PRA ▪ Coherence analysis/mapping	▪ Publications on the state of the environment and biodiversity in the region (e.g. WWF, IUCN,), National BD Strategies, etc ▪ Main programme documents ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local Beneficiaries (direct and indirect) ▪ Using all sources above	All three countries
How could the relevance of the BD activities be improved in view of potential climate change (mitigation and adaptation) priorities in the countries and food security concerns?	▪ Level of coherence of actions in zones targeted by SDC and the priorities of the country in the same zones for adaptation to the impacts of climate change ▪ Contribution to CO_2 mitigation potential from the preservation of the biodiversity targeted by the programme ▪ Extent to which actions supported also contribute to national CC and food security objectives? ▪ Potential avenues to explore to further this coherence with both CC and food security objectives	▪ Documentation review ▪ Interviews with key stakeholders	▪ NAPAs and other national studies on CC and Food security ▪ Interview with BD, CC focal points and other donors	All three countries

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
Effects and Impacts Impact (positive and negative) refers to the overall effects of the programmes in the region of operation, for beneficiaries as well as indirect beneficiaries at household, community, policies, institutional, regional and national level.				
With regard to the environment, what were the impacts of SDC biodiversity related activities and approaches				
What have been the impacts on biodiversity conservation and sustainable uses of native biodiversity (direct ecological impact)?	▪ Changes in forest cover of native species over time in targeted zones ▪ Changes in the number of species sustainably used ▪ Changes in the surface and number of areas under conservation ▪ Changes in the presence or abundance of key species over time in targeted zones ▪ Changes in the number of varieties of native cultivars under conservation and sustainable uses	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions ▪ PRA ▪ Site observation	▪ Ecological monitoring reports from programme and other donors if available, including maps and satellite imagery, if available ▪ Park monitoring logs, if available ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Park authorities and rangers ▪ Local populations surrounding protected areas ▪ Targeted areas	Two sites will be visited by country, in all three countries. (Selection to be done with SDC, following agreed sampling criteria) Focus groups with a representative sample of local populations on each site.
Long-term safeguard of critical environment resources?	▪ Change in BD area legal status ▪ Legal instrument in place and enforcement capacity for BD protection ▪ Long-term financial capacity and commitment to protection ▪ Extent to which the conservation and sustainable use measures and values introduced by the programmes are shared by stakeholders at local, regional and national levels.	▪ Documentation Review ▪ Interviews with key stakeholders	▪ National legislation ▪ Park and protected area system management plans and budgets, etc ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Other partners active in BD in the region	Three countries to be covered

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
What has been the impact to support the implementation of the international convention on biodiversity. The 3 equally complementary and important objectives of the CBD need to be considered: i) the conservation of biodiversity, ii) the sustainable use of its components, and iii) the fair and equitable sharing of benefits arising out of the utilisation of genetic resources).	This impact will essentially be concluded upon from the analysis of the other impacts to be measured above. In addition, direct questions will be posed to national-level government people in charge of the CBD process and to NGOs about possible uses of SDC support in CBD processes.	▪ Same as above, complement by interviews with key stakeholders	▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Park directors and rangers	Same as above
With regard to the local beneficiaries or the local area considered by the programmes, what has been the impact (positive and negative, intended or unintended) of SDC biodiversity activities on:				
The improvement of livelihoods through an improvement (empowerment) in the control and the access of BD resources which are valuable in term of globally significant biodiversity?	▪ Change in distribution of control over biodiversity resources by sex and ethnic group ▪ New resource management skills and leadership skills acquired and utilized by sex and ethnic grouip ▪ Change in access to biodiversity resources by sex and ethnic group ▪ Change in incidence of poverty in targeted zone (by sex and ethnic group if available) ▪ Change in revenues of families related to BD uses ▪ Use made of new revenues by families ▪ Change in social status as a result of change in livelihoods and resource use (by sex and ethnic group if available) ▪ Change in nutrition and health status	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions ▪ PRA ▪ Site observation	▪ SDC and other partners' programme evaluation, monitoring reports and poverty mapping ▪ Protected area studies conducted, if any. ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local beneficiaries (direct and indirect) ▪ In all three countries	Focus groups with a representative sample of local populations on each site (including men and women to inform differentiated impacts, and communities targeted and others not targeted)

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
Access to and sustainable use of natural resources?	▪ Change in access to biodiversity resources by sex and ethnic group ▪ Extent to which practices are ecologically sustainable	▪ Same as above ▪ Complemented by sustainability analysis	▪ Same as above	Same as above
Participation and institutional strengthening (empowerment)?	▪ Change in distribution of control over biodiversity resources by sex ▪ New resource management skills and leadership skills acquired and utilized by sex ▪ Level of participation in resource management ▪ Level of effectiveness of institutional structures strengthened	▪ Same as above	▪ Same as above	Same as above
The different economic sectors in the area considered by the programmes taken into consideration in the field study? Is there any impact on environmental sustainability as a result of changes in the economic activities due to SDC programmes?	▪ Actual and potential environmental impacts of SDC induced/supported socio-economic activities in targeted areas	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions ▪ PRA ▪ Site observation	▪ SDC programme documents covering the region, including M&E reports, Satellite imagery, local development plans and reports, etc. ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local beneficiaries (direct and indirect) ▪ In all three countries, two sites per country	Two sites will be visited by country, in all three countries. (Selection to be done with SDC, following agreed sampling criteria)
With regard to the policies frameworks (political, institutional and/or legal) and considering decentralisation issues, what has been the impact of SDC biodiversity activities on:				
The municipal and provincial level (meso)? Such as the municipal or provincial initiatives/ opportunities?	▪ Description of change in municipal and provincial level institutional, political and socio-cultural set up as a result of SDC supported activities	▪ Documentation Review ▪ Interviews with key stakeholders	▪ SDC programme documents, including M&E reports, ▪ Miunicipal and provincial development plans, as available ▪ SDC Programme and project managers ▪ Minicipal and provincial officials ▪ Other donors active in BD in the provinces covered	Two sites will be visited by country, including the municipal and provincial level authorities concerned

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
The national and regional level (macro)? Such as the national priorities with regard to biodiversity, the PRSP or the national development plans of the 3 Andean countries considered, the national initiatives, the national focal point on biodiversity, the 3 main objectives of the CBD, the benefit sharing policies?	▪ Change in national and regional priorities ▪ Change in ranking attributed to BD in national and regional priorities	▪ Documentation Review ▪ Interviews with key stakeholders	▪ National development plans, PRSPs, Reports on special national initiatives, regional strategies and priority setting documents, etc. ▪ Evaluations done by other partners in the region on BD (such as GEF) ▪ SDC Programme and project managers ▪ Government officials, including national focal points on BD, etc ▪ Regional and national authorities ▪ Other donors active in BD in the 3 countries and the region	Three countries to be visited, and key stakeholders interviewed in each country
Sustainability: What is the degree of sustainability of the outcomes depending on the approach (such as partners approach) of the programmes? Would additional strategic inputs or complementary projects have increased the sustainability of investments?				
What is the likely political/institutional sustainability of the results achieved and what could have improved it?	▪ Level of political commitment to BD conservation ▪ Level of satisfaction with services provided by institutions strengthened ▪ Level of improvement in their service delivery as a result of SDC support	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions	▪ Official speeches and policies ▪ Results of institutional assessments performed, if any ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local beneficiaries (direct and indirect)	Interviews with key stakeholders and focus groups at all site visited
What is the likely social/cultural sustainability of the results achieved and what could have improved it ?	▪ Positive social/cultural impacts measured vs negative/unintended ones	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions	▪ Programme documents and M&E reports ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Traditional leaders, etc ▪ Local beneficiaries (direct and indirect)	Interviews with key stakeholders and focus groups at all site visited
What is the likely economic and financial sustainability of the results achieved and what could have improved it?	▪ Positive economic and financial impacts measured vs negative/unintended ones ▪ Committed funding sources and mechanisms for future BD conservation and sustainable livelihood actions ▪ Actual financial and economic viability of livelihood schemes developed	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions	▪ Programme documents and M&E reports ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local beneficiaries (direct and indirect)	Interviews with key stakeholders and focus groups at all site visited

Evaluation Key Questions	Proposed Indicators	Proposed method for collecting and analysing the data	Proposed Targeted group(s)/Source	Sample size
What is the likely ecological sustainability of the results achieved and what could have improved it?	▪ This will largely be assessed as a conclusion of the sustainability assessment on the other sustainability dimensions above. ▪ In addition, the unintended negative environmental effects of SDC support will also be factored in	▪ Documentation Review ▪ Interviews with key stakeholders ▪ Focus group sessions	▪ Programme documents and M&E reports ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Local beneficiaries (direct and indirect)	Interviews with key stakeholders and focus groups at all site visited
Effectiveness What has been the contribution of the Bd activities to the effectiveness of the projects/programmes?				
How have the BD activities contributed to the level of success of the projects and programmes in achieving their expected outcomes?	▪ Extent to which expected results were achieved ▪ Contribution to results from BD activities ▪ Strongest and most challenging areas for effectiveness	▪ Documentation Review Interviews with key stakeholders	▪ Programme progress reports and M&E reports ▪ SDC Programme and project managers ▪ Government officials ▪ Regional and national authorities ▪ Other development partners	In all three countries, with all key stakeholders at regional and national level

Annex C: Questionnaire for government, SDC staff, programme staff, donors

Se espera que cada entrevista se limite a un promedio de no más de 15 preguntas claves. Las preguntas secundarias servirán como ayuda para explicitar los contenidos de éstas. El entrevistador modulará qué preguntas hacer y dónde profundizar e acuerdo a los entrevistados y sus respuestas anteriores.

PARA FUNCIONARIOS DEL GOBIERNO (VARIOS NIVELES), EL PERSONAL DE COSUDE, DIRECTORES DE PROGRAMAS Y OTROS DONANTES

PERTINENCIA

1. ¿Cómo estaba el programa (proyecto) orientado a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos?

2. ¿Cómo habían expresado los beneficiarios sus deseos de mejorar su situación a través de aumentar su acceso y uso de la flora y fauna nativa? ¿Cómo eran relacionados el diseño del proyecto y el uso de la flora y fauna al mejoramiento de los beneficios de los usuarios?
   a) ¿En su diseño, ha introducido el programa/proyecto auspiciado por COSUDE nuevas prácticas y usos que hayan beneficiado a la población local? ¿Cómo?
   b) ¿Se tomó en cuenta la sostenibilidad ecológica en el diseño del proyecto/programa? ¿Cómo?
   c) ¿Se ha abordado en estos proyectos (programas) el papel que juegan hombres y mujeres y los impactos diferenciados en su desarrollo? ¿Cómo? ¿En su concepción, cómo ha sido el programa (proyecto) respetuoso de los valores y cultura locales?

3. En el diseño del proyecto (programa), ¿Cómo se consideraron las prioridades nacionales y regionales de biodiversidad (flora y fauna) y los planes oficiales de reducción a la pobreza y/o desarrollo nacional?
   a) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) lo que se hacía (hace) como parte de iniciativas de los países andinos?
      i) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) los compromisos suizos al CBD?
   b) ¿Cuál fue el nivel de coherencia hay entre los objetivos y métodos de COSUDE y los objetivos y enfoques de los países?
   c) ¿Cuáles cambios hubo en las prioridades nacionales y regionales influenciados por el apoyo de COSUDE?
   d) ¿Cuáles cambios hubo en la prioridad dada a la biodiversidad a nivel nacional o regional debido a proyectos (programas) de COSUDE?

4. ¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados en la región y los objetivos del programa de COSUDE?

5. ¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados ya sea a nivel de sub-especies o variedades de especies y hábitat en la región y los objetivos del programa de COSUDE?

6. ¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las prioridades que podría traer el cambio climático (mitigación y adaptación) en las zonas del proyecto?

7. ¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las crecientes preocupaciones por la seguridad alimentaria?

IMPACTOS

8. ¿Cómo ha logrado el programa (proyecto) a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos? ¿Los usan ahora más que antes? ¿Cómo se ha traducido esta mejoría de acceso en la vida diaria de los beneficiarios?

9. ¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre las prioridades a nivel nacional y regional?

10. ¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre políticas al nivel municipal y provincial?

11. Impacto de las actividades de biodiversidad de COSUDE sobre:

    i) Los modos de vida de las poblaciones rurales, incluyendo impactos indirectos socio-económicos que siguen al impacto directamente relacionado con la biodiversidad. (La biodiversidad puede tener impacto sobre el bienestar, particularmente a través de sus impactos sobre los modos de vida, la salud y las instituciones políticas)

    ii) La gente pobre, especialmente los que viven en áreas con baja productividad agrícola, que dependen fuerte y directamente de la diversidad genética y de la biodiversidad de ecosistemas para mantener su subsistencia.

    - ¿Cuáles cambios han habido en la incidencia de pobreza en las áreas de trabajo de COSUDE? (Por sexo y grupo étnico si la información está disponible). ¿Cuál fue el aporte de los proyectos de COSUDE que incluyen biodiversidad a estos cambios?
    - ¿Cuáles cambios han habido de ingresos de las familias relacionados con los usos de la flora y fauna nativas*?*
    - ¿Para qué usan las familias estos nuevos ingresos?
    - ¿Cuáles cambios han habido en la posición social correlacionados con cambios en el uso de los recursos biológicos (por sexo y grupo étnico si la información está disponible)?
    - ¿Cuáles cambios han habido asociados en la nutrición y salud de las familias?

- ¿Qué otros cambios socio-económicos y políticos, voluntarios o involuntarios, han sido identificados (por sexo y grupo étnico si la información está disponible)?
- Con respecto a los recursos de flora y fauna, ¿Cuáles cambios han habido en su distribución, gestión, acceso o control? (Por sexo y grupo étnico, en lo posible).

12. ¿Qué ha sido el nivel de acceso, y de uso sostenible de recursos naturales?

13. ¿Cuánta participación ha habido en la preparación y gestión de los proyectos COSUDE?

14. ¿Cómo fueron tomados en cuenta los principales sectores económicos en el área considerado por los programas? ¿Hay algún impacto sobre la sostenibilidad ecológica a causa de cambios en actividades económicas por los programas de COSUDE? Cuál?

15. ¿En qué aspectos ha mejorado la capacidad de las instituciones asociadas a proyectos COSUDE?

16. ¿Cuán eficaces son ahora esas instituciones fortalecidas (empoderadas)?

17. ¿En cuanto a la biodiversidad, ha habido conservación? ¿Cómo? ¿Ha habido mejora o pérdida de biodiversidad en las áreas consideradas por los programas de COSUDE? Por ejemplo,
    a) Cómo consecuencia de los proyectos COSUDE, ¿Cuáles cambios hay en la cubierta forestal de especies nativas en las zonas beneficiadas?
    b) ¿Cuáles cambios hay en el número de especies usadas de manera sostenible?
    c) ¿Cómo consecuencia de los proyectos COSUDE, ¿Cuáles cambios hay en la superficie y el número de áreas conservadas?
    d) ¿Qué cambios hay en la presencia o abundancia de especies nativas en las áreas beneficiadas?
    e) ¿Qué cambios hay en el número de variedades de cultivos nativos conservadas o bajo usos sostenibles que puedan atribuirse a los proyectos COSUDE?
    f) ¿Puede decirse que los proyectos COSUDE han ayudado a proteger recursos naturales en el largo plazo? ¿Cómo?
    g) ¿Cómo consecuencia de los proyectos de COSUDE, ¿cuales cambios hay en la situación legal de tierras que podrían contribuir a la protección de la flora y fauna nativas?
    h) ¿Cómo consecuencia de los proyectos de COSUDE, ¿Cuáles instrumentos legales y capacidades de fiscalización y (¿sanción?) se han establecido para la protección de la flora y fauna nativas?
    i) ¿Cómo consecuencia de los proyectos de COSUDE, ¿Qué capacidad financiera y compromisos de largo plazo existen para la protección de la flora y fauna nativas?

18. ¿Hasta qué punto la conservación y los usos de los instrumentos legales apoyados por los programas de COSUDE son compartidos por todas las partes interesadas al nivel local, regional y nacional?

SOSTENIBILIDAD

19. ¿Cómo consecuencia de los proyectos de COSUDE, ¿cuál es la probable sostenibilidad política e institucional de los resultados logrados y qué hubiera podido mejorarla?
    a) ¿Cómo consecuencia de los proyectos COSUDE, ¿Cómo ha cambiado el nivel de compromiso político con la conservación de la BD?
    b) ¿Cómo consecuencia de los proyectos, ¿Cómo han mejorado los servicios proporcionados por las instituciones fortalecidas?
    c) ¿Cuál es el nivel de mejoramiento en la entrega de servicios como resultado del apoyo de COSUDE?

20. ¿Son socialmente y culturalmente aceptables los resultados y qué hubiera podido mejorar esa aceptación?
    a) Con respecto a los proyectos de COSUDE, ¿cuáles son los impactos socio/culturales positivos medidos y cómo se comparan éstos con los efectos negativos o involuntarios que pudieran haberse producido?

21. ¿Cómo serán económica y financieramente sostenibles los logros de los proyectos COSUDE y qué hubiera podido mejorarla?
    a) ¿Se han medido impactos económicos y financieros positivos y se los ha contrastado con impactos negativos e involuntarios?
    b) ¿Hay financiamiento y mecanismos comprometidos para una futura conservación y usos sostenibles de la BD y para ayudar a modos de vida sostenibles?
    c) ¿Cuál es la viabilidad financiera y económica de los planes de modos de vida desarrollados en los proyectos de COSUDE?

22. ¿Cómo serán ecológicamente sostenibles los resultados logrados en los proyectos de COSUDE y qué hubiera podido mejorar esta sostenibilidad?

EFICACIA

23. ¿Qué tan exitosos fueron los programas de COSUDE en lograr sus resultados en lo que a usos sostenibles de la biodiversidad concierne?

24. ¿Cómo han contribuido las actividades de BD de los programas/proyectos a lograr la meta de aliviar la pobreza? ¿La influencia de las componentes de biodiversidad ha sido mayor en lo político, institucional, socio-económico o ecológico?

Annex D: Questionnaire for local organisations

Es importante notar que lo que interesa a COSUDE es si estos proyectos, diseñados para ayudar a reducir la pobreza rural, ADEMÁS contribuyen a los 3 objetivos del Convenio de BD: Preservación (áreas protegidas), usos sostenibles de BD nativa (incluyendo variedades de ella) y la repartición equitativa de los beneficios resultantes de los usos sostenibles de la diversidad genética (en estos casos mayormente variedades de papa).

PARA ORGANIZACIONES LOCALES TRABAJANDO DIRECTAMENTE CON LOS BENEFICIARIOS.

1. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?
   1a. (Si sí a 1): ¿Estuvo involucrado (a) personalmente en el proyecto de alguna forma?
   1b. (Si si a 1a): ¿Cómo?
   1c. (Si sí a 1): ¿Cuáles fueron (son) las metas del proyecto?
   1d. (Si sí a 1): ¿Cómo se intentó lograr esas metas?

2. Algunas de sus actividades tenían que ver con la conservación de la biodiversidad, ¿cómo clasificaría el éxito final del proyecto? (altamente satisfactorio AS, satisfactorio S, moderadamente satisfactorio MS, insatisfactorio I)
   2a. ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?

3. ¿En los años transcurridos cómo ha cambiado el estado de la conservación de la flora y fauna en el área? (mejor/igual/peor)
   3a. ¿Por qué lo clasificó así? ¿Qué datos apoyan su afirmación?
   3b. (si 'mejor; o 'peor' a 3): ¿Cuáles son las causas por las que ha mejorado/empeorado la situación?

4. ¿Qué cambios sociales/económicos/políticos han ocurrido durante el proyecto (desde el inicio o desde el final) que hubieran podido afectar la conservación de la biodiversidad?
   - ¿Cree que COSUDE incidió en el alivio de la pobreza en su área de trabajo? (Por sexo y grupo étnico si la información está disponible).
   - ¿Cuáles cambios ha habido de ingresos de las familias relacionado con los usos de la flora y fauna?
   - ¿Qué usos le han dado las familias a esos nuevos ingresos?
   - Con respecto al proyecto auspiciado por COSUDE, ¿los cambios en los modos de vida y en el uso de los recursos (por sexo y grupo étnico si la información está disponible) han cambiado la situación social de las familias?
   - ¿Cuáles cambios han habido en la nutrición y salud atribuibles al proyecto?
   - ¿Se han identificado otros efectos del proyecto auspiciado por COSUDE ya sea socio-económicos o políticos, voluntarios o involuntarios (por sexo y grupo étnico si la información está disponible)?
   - ¿Cuáles cambios produjo el proyecto COSUDE en la distribución, gestión, acceso o control sobre los recursos de flora y fauna (Por sexo y grupo étnico)?

4a. (Para cada cambio listado): ¿Cómo afectó este cambio la conservación de la flora y fauna?)
4b. (para cada cambio listado): ¿Fue posible prever este cambio antes de que terminara el proyecto?
4c. (Para cada cambio listado, y sí en 4b: ¿El proyecto anticipó el cambio y se planificó para ello?
4d. (Si sí a 4c): ¿Cómo?

5. (Si sí a 1): ¿Cómo sería el estado de la conservación de la biodiversidad hoy día si no hubiera existido el proyecto/programa de COSUDE? (mejor/igual/peor)
   5a. (si 'mejor' o 'peor' a 5): ¿Por qué?
   5b. (si 'mejor' o 'peor' a 5): Después del final del proyecto, sigue siendo válidas estas razones o ha cambiado la situación?
   5c. (Si 'cambiado' a 5b): ¿Cómo?

6. ¿Cuáles eran las amenazas principales a la flora y fauna antes del proyecto/programa de COSUDE? (ejs: caza o destrucción ilegal, uso no sostenible, contaminación, falta de preferencia en un mercado, etc.)
   6a. (para cada amenaza listada): ¿Qué tan grande fue el área afectada por esta amenaza? (toda/la mayor parte/algunas partes/un poco)?
   6b. (para cada amenaza listada): ¿Qué tan seria era esta amenaza en términos del impacto sobre la biodiversidad? (alta/mediana/baja)
   6c. (para cada amenaza listada): ¿Se ha reducido esta amenaza al final del proyecto/programa? (En términos de área y de impacto)
   6d. (para cada amenaza listada): ¿Hasta qué punto la reducción de amenazas fue resultado de las actividades del proyecto/programa? (todas/la mayoría/algunas /pocas). ¿Hubo otros proyectos en esa misma área con propósitos similares?
   6e. (para cada amenaza listada): ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?
   6f. (para cada amenaza listada): ¿Qué otros cambios han sucedido desde el final del proyecto con respecto a esta amenaza, en términos de área y de impacto? (Ejs., Proyectos nuevos, aumento de la destrucción, cambios de políticas, etc.)

7. (Si sí a 1): ¿Qué lecciones aprendieron, tanto positivas como negativas, con el proyecto y que han ayudado a la conservación de la biodiversidad en esta área?
   7a. (Si se lista lecciones en 6): ¿Han sido aplicadas estas lecciones?
   7b. (Si se lista lecciones en 6): ¿Dónde han sido aplicadas estas lecciones? ¿Pueden verse?

Annex E: Questionnaire for focus groups

COMUNIDAD LOCAL

1. ¿Por cuánto tiempo ha vivido en esta área?

2. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?

3. ¿Estuvo Ud. involucrado (a) de alguna manera en el proyecto? ¿Puede haber sido, por ejemplo, a través de colaboración en la preparación del proyecto o su implementación? ¿Percibió Ud algún beneficio del proyecto?

4. ¿En comparación al pasado (muchos años atrás ¿cuántos?), hay más vegetación y animales en el área, o menos?
   4a. En los últimos anos, hubo algunos cambios en el hábitat natural?
   4b. (Si algún cambio listado en 4 o 4ª): ¿Qué causó estos cambios?

5. En comparación con los últimos años (los más recientes ¿cuántos?), ¿ve más o menos animales en el área? ¿Qué especies son más frecuentes ahora que hace unos años? ¿Qué especies son ahora menos frecuentes?
   5a. ¿En los últimos años (los más recientes ¿Cuántos?) hubo algunos cambios en la cantidad de animales? La cantidad de animales silvestres ha aumentado o disminuido en los últimos años?
   5b. (si sí a 5ª): ¿Qué causó estos cambios?
   Nota: fotos de animales y pájaros podrían servir para acumular más información específica.

6. ¿Diez años atrás, qué tipos de actividades estaban destruyendo el bosque, o matando a los animales?
   6a. (Para cada actividad listada): ¿Esto sucedía en una gran área o en un área pequeña? ¿De qué tamaño?
   6b. (para cada actividad listada): ¿Esta actividad causó mucha destrucción al bosque o fauna, o solo un poco?
   6c. (para cada actividad listada): ¿En los 10 últimos años, esta actividad ha disminuido o aumentado, en cuánto? (mucho/poco)
   6d. (Si hay un cambio listado en 7c): ¿Por qué ha disminuido/aumentado?
   6e. (para cada actividad listada): ¿En los últimos 2-3 años, hubo algún cambio en esta actividad? (aumentado/igual/disminuido)
   6f. (si hay un cambio listado en 7e): ¿Por qué ha disminuido/aumentado?
   6g. (para cada actividad listada): ¿Quiénes realizan estas actividades…forasteros o gente de la misma comunidad o comunidades cercanas?

7. ¿Qué sería lo mejor que podría hacer el gobierno ahora para ayudarle a Ud. y a su familia?

8. ¿Cómo se beneficia Ud del uso de la flora y fauna nativa? ¿Le gustaría hacerlo más? ¿Qué se lo impide? ¿Por qué no lo hace?

9. ¿Cuáles son sus actividades principales? (p.ej., trabajo con semillas, trabajo en el bosque, agricultura, silvicultura, agro-silvicultura)?
   9a. (Para cada actividad listada): ¿Cuánto tiempo pasa Ud. o su familia en esta actividad?
   9b. (para cada actividad listada): ¿Vende los productos, o los usa Ud. mismo (auto-consumo)?
   9c. (para cada actividad que genera ingresos): ¿Cuánto gana de esta actividad durante el año? ¿Es su ingreso más importante?
   9d. Si compara antes y después del proyecto, ha cambiado el tiempo que dedica a sus diferentes actividades? En cuáles pasa más y en cuáles pasa menos tiempo?
   9e. ¿Hay actividades que empezó sólo después del comienzo del proyecto/programa? ¿Cuáles?
   9f. (Si sí a 4e): ¿Por que empezó estas actividades y quién se las enseñó/mostró/presentó?
   9g. ¿Hay algunas actividades que dejó de hacer desde que empezó el proyecto/programa? ¿Cuáles?
   9h. (si sí a 4g): ¿Por qué dejó de hacerlas?
   9i. ¿Es propietario (a) de algún terreno en esta área?
   9j. ¿Impulsó el proyecto algún otro cambio en su vida?
   9k. Para los que ganan más a causa de actividades del proyecto, ¿para qué usa este dinero adicional?

Annex F: Project/programme Title Translation

AGRECOL	Programme supporting agro-ecology in Cochabamba, Bolivia
AGRUCO	Agro-Ecology Centre of University Mayor of San Simón in Cochabamba, Bolivia
BIOANDES	Regional Programme for the sustainable uses of biodiversity
ECOBONA	Regional Programme for the Management of Andean Forest Ecosystems of Bolivia, Ecuador and Peru.
EL CONDOR	Natural resource management in El Cóndor
FORTIPAPA	Research and production of potato seeds in Ecuador
FOSEFOR	Fund to support the production of forest seeds
INCOPA	Promotion of Peruvian Potatoes
PAPA ANDINA	Regional potato programme in Bolivia, Ecuador and Peru
PEEFORM	Ecological education for primary school teachers in Peru
PROBONA	Protection of Mountain Forests in Bolivia, Ecuador and Peru
PROINPA	Programme for innovative Andean products, Bolivia
RASEFOR	Red Andina de Centros de Semillas Forestales
SEPA	Potato seed production programme in Bolivia.
SIBTA	Bolivian Agro-technology system

Annex G: Tables

Table 1: Focus groups opinions regarding project/programmes impacts

Name of Communities	More than before intervention	Less than before intervention	No change	Describe change-
AGRUCO (total)	**5**	**0**	**0**	
Chorojo - Jatun Mayu (6 communities) (Bolivia)	√			Increased agro biodiversity in the form of native varieties of potatoes and other crops
Tapacarí (Bolivia)	√			Reduced forest conversion, reduced degradation of the forests, Increased agro biodiversity in the form of native varieties of potatoes and other crops
Confital (Bolivia)	√			Increased agro biodiversity in the form of native varieties of potatoes and other crops
Ayllu Majasaya (Bolivia)	√			Increased agro biodiversity in the form of native varieties of potatoes and other crops
Japo (Bolivia)	√			Increased agro biodiversity in the form of native varieties of potatoes and other crops
FOSEFOR (total)	**2**	**0**	**2**	
Cotagaita *not visited (Bolivia)	√			Reforestation with native species
Vitichi *not visited (Bolivia)	√			Reforestation with native species
Mangamanguilla (Piura) (Perú)			√	
Ancash Communities (Perú)			√	
INCOPA (total)	**1**	**0**	**1**	
Cayna Community (Huánuco) (Perú)	√			The project supported the increased use of native colour potato species and varieties
Ilave Community (Puno) (Perú)			√	No changes mentioned. The area is already quite degraded
PROBONA/ECOBONA (total)	**9**	**0**	**1**	
Villa Serrano, Chuquisaca (Bolivia)	√			Reduced forest conversion, reduced degradation of the forests
Tomina, Chuquisaca (24 communities) (Bolivia)	√			Reduced forest conversion, reduced degradation of the forests
El Villar, Chuquisaca (Bolivia)			√	Only recently been incorporated
Mancomunidad, Chuquisaca Centro (46 communities) (Bolivia)	√			Reduced forest conversion, reduced degradation of the forests

Name of Communities	More than before intervention	Less than before intervention	No change	Describe change-
Cuenca del Q'orimayu municipio de Independencia -9 comunidades (Bolivia)	√			Reduced forest conversion, reduced degradation of the forests
Yoma Poqanche (Bolivia)	√			Now plant native fruit tree species in the valley with programme support, including (*Inga sp., Anona cherimolia, etc*.)
Sivingani (Bolivia)	√			Forest recovery in bio diverse sector
Morochata (3 communities) (Bolivia)	√			Reforestation with native species
Ayabaca (Piura) (Perú)	√			The programme helped implement native tree plantations and nurseries (Tara and Aliso)
Ccerabamba (Apurimac) (Perú)	√			Poaching has been reduced. Masked bear is seen more frequently now. Support to the protection of Intimpa (native species) by supporting Ampay National Sanctuary
Total by category	**17**		**4**	

Table 2: Reported Change in Income or Production of Beneficiaries Following the SDC Interventions

Name of Communities	Positive	Negative	None	Percentage change (+ or -)
AGRUCO (total)	**5**	**0**	**0**	**Aver: +87– 107%**
Chorojo – Jatun Mayu (Bolivia) (6 communities)	√			+ 300%
Tapacarí (Bolivia)	√			+ 15%
Confital (Bolivia)	√			+ 40 – 70%
Ayllu Majasaya (Bolivia)	√			+ 40 – 80%
Japo (Bolivia)	√			+ 40 – 70%
FOSEFOR (total)	**3**	**0**	**1**	**Aver: n/a**
Cotagaita *not visited (Bolivia)	√			n/a
Vitichi *not visited (Bolivia)	√			n/a
Mangamanguilla (Piura) (Peru)			√	
Huaraz Communities (Peru)	√			Increase by 30-40 kg/year
INCOPA (total)	**2**	**0**	**0**	**Aver: + 69%**
Cayna Community (Huánuco) (Peru)	√			+ 37% (production)
Ilave Community (Puno) (Peru)	√			At Least 100%
PROBONA/ECOBONA (total)	**8**	**0**	**2**	**Aver:+44-95%**
Villa Serrano, Chuquisaca (Bolivia)	√			+ 5 -10%
Tomina, Chuquisaca (24 communities) (Bolivia)	√			+ 5 -10%
El Villar, Chuquisaca (Bolivia)			√	0
Mancomunidad, Chuquisaca Centro (46 communities) (Bolivia)	√			+ 10%

Name of Communities	Positive	Negative	None	Percentage change (+ or -)
Cuenca del Q'orimayu municipio de Independencia -9 comunidades (Bolivia)	√			+ 5%
Yoma Poqanche (Bolivia)	√			+ 5%
Sivingani (Bolivia)	√			+ 5%
Morochata (3 communities) (Bolivia)	√			+ 5%
Ayabaca (Piura) (Peru)			√	
Ccerabamba (Apurimac) (Peru)	√			+ 400 to + 900% (Honey production)
Total per category	**18**		**3**	**+67 – 90% (excluding FOSEFOR)**

Table 3: Change in Resource Use Due to the Intervention According To Beneficiaries

Name of Communities	More sustainable	Less sustainable	Unchanged	Main Reason provided
AGRUCO (total)	**5**	**0**	**0**	
Chorojo - Jatun Mayu (6 communities) (Bolivia)	√			Less pesticides, less expensive control of pests, better storage of seed potatoes and of produce
Tapacarí (Bolivia)	√			Less pesticides, less expensive control of pests, better storage
Confital (Bolivia)	√			Greater variety of potatoes,
Ayllu Majasaya (Bolivia)	√			Greater variety of potatoes, better storage of seed potatoes and of produce Less pesticides, less expensive control of pests
Japo (Bolivia)	√			Diversified production, Greater variety of potatoes
FOSEFOR (total)	**4**	**0**	**0**	
Cotagaita *not visited	√			Diversified production, Reforestation
Vitichi *not visited	√			Diversified production, Reforestation
Mangamanguilla (Piura) (Perú)	√			Access to forest resources (timber) other than the species kept for seeds is secured when there is need for cash
Ancash Communities (Perú)	√			Programme inventoried and mapped key forest species, including 6 native. Quality seed sources are kept *in situ.*
INCOPA (total)	**2**	**0**	**0**	
Cayna Community (Huánuco) (Perú)	√			Increased consumption of potato Increased income allowed community members to invest in agriculture activities

PROBONA/ECOBONA (total)	**9**	**0**	**1**	**The other communities do not bring their livestock anymore**
Llave Community (Puno) (Perú)	√			Higher incomes, access to packing and professional-level management of Tunta, and better access to markets
Villa Serrano, Chuquisaca (Bolivia)	√			Reduced impact of coal extraction
Tomina, Chuquisaca (24 commun(Bolivia)ities)	√			Reduced impact of coal extraction, reduced browsing and grassing by cattle from other communities
El Villar, Chuquisaca (Bolivia)			√	(Started only recently)
Mancomunidad, Chuquisaca Centro (46 communities) (Bolivia)	√			Norms establish communal ownership of the forest and legitimate intervention
Cuenca del Q'orimayu municipio de Independencia -9 comunidades (Bolivia)	√			Protect water resources, less erosion, reduced pressure on native species by using exotics for firewood and construction, better health (medicinal plants from the forest)
Yoma Poqanche (Bolivia)	√			Deforestation reduced, protected water resources, less erosion, diversified production (fruits, bees), medicinal plant use increased
Sivingani (Bolivia)	√			The other communities do not bring their livestock anymore, diversified production diversified production,
Morochata (3 communities) (Bolivia)	√			Reforestation, reduced pressure on native species by using exotics for firewood
Ayabaca (Piura) (Perú)	√			Nurseries with economically important plants
Ccerabamba (Apurimac) (Perú)	√			Creation of municipal nurseries with native forest species and fruit trees. Preparation of Forest Management Plans
Total by category	**20**		**1**	

Table 4: Change Reported by Communities on Micro-level Institutional Structures Following SDC Interventions

Name of Communities	More sustainable	Less sustainable	Unchanged	Explain type of impact if + or -
AGRUCO (total)	**5**	**0**	**0**	
Chorojo - Jatun Mayu (6 communities) (Bolivia)	√			Communities were already well organized but the treatment, discussion of resource management, reduction of exposure to chemicals and traditional knowledge has become more important
Tapacarí (Bolivia)	√			idem
Confital (Bolivia)	√			idem
Ayllu Majasaya (Bolivia)	√			Idem, Have started managing tourist resources
Japo (Bolivia)	√			Idem, Have started managing tourist resources
FOSEFOR (total)	**4**	**0**	**0**	
Cotagaita *not visited (Bolivia)	√			Reforestation managed
Vitichi *not visited (Bolivia)	√			Reforestation managed
Mangamanguilla (Piura) (Perú)	√			Commitment to protecting the seed trees site – tested twice
Ancash Communities (Perú)	√			Increased their knowledge and skills about seed tree identification, seed collection and seed tree management
INCOPA (total)	**2**	**0**	**0**	
Cayna Community (Huánuco) (Perú)	√			Strengthened organisational structure to sell their products
Ilave Community (Puno) (Perú)	√			Improved social arrangements for the processing and marketing of Tunta (See Picture in Peru Case Study). Improved infrastructure.
PROBONA/ECOBONA (total)	**10**	**0**	**0**	
Villa Serrano, Chuquisaca (Bolivia)	√			Introduced in communal organisation themes of natural resource regulation in communal forest

Name of Communities	More sustainable	Less sustainable	Unchanged	Explain type of impact if + or -
Tomina, Chuquisaca (24 communities) (Bolivia)	√			Introduced in communal organisation themes of natural resource regulation in communal forest
El Villar, Chuquisaca (Bolivia)	√			Introduced in communal organisation themes of natural resource regulation in communal forest, reduced outside pressure on forest
Mancomunidad, Chuquisaca Centro (46 communities) (Bolivia)	√			Introduced in communal organisation themes of natural resource regulation in communal forest
Cuenca del Q'orimayu municipio de Independencia -9 comunidades (Bolivia)	√			Regulated access managed by the communal organisation reduces uncontrolled use by members of the community and outsiders
Yoma Poqanche (Bolivia)	√			
Sivingani (Bolivia)	√			Regulated access managed by the communal organisation reduces uncontrolled use by members of the community and outsiders. Outsiders respect community more
Morochata (3 communities) (Bolivia)	√			Reforestation managed
Ayabaca (Piura) (Perú)	√			Programme Helped develop a awareness about Andean Forest
Ccerabamba (Apurimac) (Perú)	√			Trained local people in construction of improved stoves. Intensive training to local authorities. Forest fire training. Creation of Saywite-Choquequirao-Ampay Commonwealth
Total per category	**21**	**0**	**0**	

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- Anexo 2 Cronograma de actividades (Excel spreadsheets)
- Anexo 3 Presupuesto por componente
- Anexo 4 Programación presupuestaria
- Anexo 5 Lineamientos para la creación y operación del Fondo de Iniciativas Amazónicas
- Anexo 6 Matriz Sis. Production
- Anexo 7 Procesos Marcha (how the various sectors of the project are advancing)
- Anexo 8 Líneas de intervención según procesos identificados y ejes temáticos
- Anexo 9 Líneas de intervención, según sistemas productivos
- Anexo 10 Taller local para formulación del proyecto actores comunitarios.
- Anexo 11 Taller local para formulación del proyecto actores institucionales
- Anexo 12 Memoria Tecnica-Diagnostico de la Producción en la zona
- Anexo 13 Costos de madera

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Annex I: People interviewed in Bern by Alain Lafontaine

December, 2008

Giancarlo De Picciotto, SDC

Liliane Ortega, SDC

Simon Zbinden, SDC

Eric Chevallier, Intercooperation

Evaluators` Final Case Study:
Bolivia

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List of Acronyms

CBD	Convention on Biological Diversity
CO2	Carbon dioxide
CDF	Centre for Forest Development
NGO	nongovernmental organisation
PRSP	Poverty Reduction Strategy Paper
REDD	Reducing Emissions from Deforestation and Forest Degradation
SDC	Swiss Agency for Development and Cooperation
UICN	The World Conservation Union

Project List

AGRUCO
PROBONA/ECOBONA
FOSEFOR
PROINPÂ

1 Introduction

Before analysing the impact of projects/programmes developed by the Swiss Cooperation office in Bolivia it is necessary to describe this scenario. All countries have their specificities and in that sense Bolivia has many that go from the social and economic to the biological and geographical. These characteristics have made the development of international projects both a challenge and the source of accomplishments. What follows is a summary description of Bolivia as a scenario for biodiversity conservation and development projects.

1.1 The Country Context

1.1.1 Biological and Geographical

Bolivia lies between 9° south and 24° south of the equator, thus wholly within the tropics. The Andes act as a barrier to the influence of the Pacific Ocean on the climate of the region. The result is that even though the Andes are close to the ocean, the winds that blow from the south cold air from Antarctica over Patagonia and a cold and dry winter dominates the whole area of the country. There is a strong seasonality with wet summers and dry winters. Within Bolivia there is a tendency for those areas in the north to have more rainfall than those in the south. This is true for areas in the lowlands as well as those in the Highlands. The Andes also act as a barrier to the winds that come from the wet lowlands and are therefore subject to high rainfall on the eastern slopes. Bolivia's climate is extremely diverse within these parameters and is a product of a very diverse topography. The eastern lowlands lay between 20 and 215 m above sea level covering two thirds of the surface area of the country. On the other hand the highlands which cover only about a third of the country vary between 6500 m and 250. This area which is for the most part covered by a large plateau at 3800 m above sea level is formed mostly by valleys with very different climate regimes depending on their orientation and the relationship to the mountain chains. These valleys have been occupied intensely for a very long time and have been settled by Native American people for at least 10,000 years. Agriculture has developed in these valleys on the bases of native crops created locally by these farmers. Potatoes are the best known of these crops and one of the 10 most important for the nourishment of humanity. Nevertheless there are many varieties which are known only locally and other very different species of plants that have also been domesticated in the area. While maize may have originated in Mexico and have come to this area through trade, it has been used by farmers in the Andes since pre-Hispanic times.

We are in an area where the number of species of wild animals and plants may be relatively small but where their long-standing relationship with native cultures has produced an extremely high diversity of domesticated plants. This diversity is not only important because of the number of species that have been domesticated but also because of the special qualities they have developed in a very adverse environment. The recent increase in cultivation of Quinoa has been based on its nutritional qualities but its eventual expansion in the world will depend on its agricultural qualities in saline and dry environments.

A very different situation is that of the eastern slopes of the Andes and the eastern lowlands. These areas have extremely high biodiversity and are among the most diverse areas of the world, for this reason Bolivia has been classified among the megadiverse countries.

There are registered for Bolivia:

- 350 species of mammals,
- 1398 species of birds,
- 186 amphibians,
- 260 species of reptiles,
- 550 species of freshwater fish.

With relation to endemism, the following groups are important (percentage of Bolivian species):

1) in flora
   - cactácea (74% endemics),
   - orchids (20-25% endemics),
   - vascular plants in general (20-25% endemics, between 4000 and 5000 species of 20.000 total).
2) fauna
   - mammals: 5% (mostly rodents, small marsupials, primates-*Callicebus,* fresh water dolphin or bufeo *Inia boliviensis*),
   - birds (1%) 17 species,
   - 6% of the total of reptiles,
   - 18% of the amphibians is endemic. 8 species of *Telmatobius* and 7 species of *Eleutherodactylus* (Leptodactylidae),
   - fish: *Orestias*, cavern mauri (*Trichomicterus chaberti*) in Torotoro caverns and *Bryconops.*

Most of the species are in the lowlands and mostly in forests, because of this wealth there has been international attention placed mainly on the tropical rain forest, both in Amazonia and elsewhere. On the other hand it has been difficult to bring attention to areas that have little species diversity even if, as is the case with the Bolivian Andes, the diversity they have is of extreme importance.

There are other characteristics that are prevalent in the area that has been supported by the Swiss cooperation that are important to consider in relation to biodiversity. As we will see later Switzerland has mainly supported projects in the area of the dry valleys and the Altiplano. These areas are not only biodiversity poor but they are to a large extent devoid of forests. However, the few forests that are included in the area are extremely important because of the high rates of endemism and their poor state of conservation, some of them being mainly remnants of larger forests. Among these are the *Polylepis* forests which extend from Ecuador to Argentina and are among the forests to reach higher elevations in the world. The *Polylepis* forest around Mount Sajama, reaches an elevation of 5200 m, making it the highest forest in the world (FyK, LyB). The table provided in Annex 4, taken from the National Strategy of Biodiversity Conservation, describes the general state of conservation of most of the ecosystems of the country.

1.1.2 Social and economical

At the moment the Spanish arrived in Bolivia their attention was taken by the mineral wealth of the country. At the beginning silver and gold were extracted in Bolivia and sent to Spain in large quantities. The policy and country were dominated by mining. Contrary to what happened in other parts of the empire, agriculture was not paid much attention by the government and was mainly a way to provide food for people that worked in the mines. By the end of the 19th century, silver was replaced by tin as the main metal produced in Bolivia. The situation dominated Bolivian politics until the 1950s when, as a reaction against the war lost to Paraguay, a number of reforms were instituted. These included universal voting, nationalisation of mines, educational reform, opening schooling for all people and agrarian

reform. It is not until then that the Universities and society as a whole started to pay attention to Bolivian biodiversity. There had been a moment in Bolivia's history when rubber was the source of wealth in northern Bolivia, but once that boom passed there was very little left in the way of institutions or capacity in the area[1].

1.1.3 Institutional

Institutional development with regards to the use of renewable natural resources and the use and conservation of biodiversity reflect the historical development of Bolivia as mentioned above. There were no executive branch of government institutions developed for managing forests until the mid-1970s. At the time the Centre for Forest Development (CDF) was created as a part of an effort to create a forest management and development capacity in the country. Unfortunately the law enacted in 1974 was more oriented to extraction then to management and was the beginning of a 20 year process of uncontrolled extraction of precious woods in the lowlands. During this period the CDF was not only in charge of managing forests in Bolivia but was also given the task of protecting wildlife regulating hunting and managing protected areas. These tests were performed with very different degrees of attention. The CDF dedicated most of its efforts to lumbering and to the revenues thereof. While the trade in wildlife provided illegal money resources, protected areas were a task without funding at the time.

By the early 1990s the CDF was seen as an institution that had not fulfilled its role in developing sound management of forests and had transformed itself in one of the main promoters of deforestation. Its role as regulator of the use of wildlife and as the main manager of protected areas where hardly developed. A number of nongovernmental organisations (NGOs) and civil society organisations had by then developed in the country. Supported by some academic institutions they promoted the control of wildlife trade and a modification of the way the state was dealing with forest management and conservation. A Secretariat put at the level of the presidency of the country promoted the separation of the conservation functions of the CDF from the forest management which had been plagued by solely extracting lumber interests.

In April 1992 law 1333 was enacted. This law created a new framework for environmental activities in Bolivia. It is the law that still regulates environmental concerns and the bases for environmental quality control and biodiversity conservation. Law 1700 was enacted two years later and was the basis for a dramatic change in forest management policy in Bolivia. While with the previous law there had been no development of research on forest dynamics, no development of communal forestry and nearly no development of field control of forestry activities, with the new law all these activities developed strongly. In 10 years, Bolivia passed from a country that had almost no management of forests to a country that had 2,000,000 ha of tropical forest independently certified. Law 1700 created a Forest Superintendence that was in charge of applying the forestry law and regulating its application. Resources for the functioning of the state regulating agency, for research, and for the support of local actors were included in the law. Thus a dramatic change in the state of forest management and development in Bolivia took place in the relative short time between the enactment of the forestry law Nr 1700 in July 12 1996 and today.

Another sector that is important in our consideration is agriculture and native genetic resources. As was mentioned before, Bolivia is at the centre of origin of a large number of domesticated crops. This has been clearly understood by a number of Bolivian scientists in this field but was not totally integrated into the state structure handling agriculture. During the past few governments, the ministries of Agriculture have stressed the development of large-

[1] Baudoin, M and España, R. Lineamientos para la Elaboración de una Estrategia de Conservación de la Biodiversidad, La Paz, 1997

scale farming in the lowlands and Ministers have been named always with the approval of the associations of large-scale farmers of the lowlands. The largest number of Bolivian farmers comes not from the lowlands but from the inter Andean valleys, and a large proportion of the crops grown for food in the country come from small farms. These farmers, though numerous, have had in the recent past limited access to support from the government. These farmers include the large number of very old native communities which have through time managed native crops and have been the custodians of the genetic wealth of the country. The productivity of their plots is low compared to that of industrial farming but the genetic value of their resources is one of the highest. They have always received low prices for their products and only recently much attention from the government.

1.2 Purpose of case study: contribution to the portfolio analysis

The main purpose of this evaluation is to investigate the added value of the integration of biodiversity issues and programmes in the Swiss Agency for Development and Cooperation (SDC) cooperation strategies in the Andean Region with regard to:

- (a) Local populations: improvement, through biodiversity, of their livelihoods.
- (b) Governments: governmental (micro, meso and macro levels) capacities to influence global and/or international strategies on biodiversity.
- (c) Environment: implementation of the international convention on biodiversity (the 3 objectives of the Convention on Biological Diversity (CBD) need to be considered: i) the conservation of biodiversity, ii) the sustainable use of its components, and iii) the fair and equitable sharing of benefits arising out of the utilisation of genetic resources).

This case study is one of the main sources of data and analysis for this evaluation, along with the case studies prepared for Ecuador and Peru, following the same methodology.

1.3 Project/programmes covered under case study

This study is based on the analysis of three main projects supported by the Swiss cooperation to Bolivia. These are: AGRUCO, PROBONA/ECOBONA, and FOSEFOR.

AGRUCO

Project Agroecología Universidad Cochabamba AGRUCO,

AGRUCO, is a Centre of Excellence of the University of San Simón, develops and diffuses concepts, methodologies, techniques and strategies for sustainable agroecology in Bolivian and Latin American universities, and it executes development programmes with municipalities and rural grass root organisations. It promotes agroecology and sustainable endogenous development based on local knowledge through participative research and the knowledge of the indigenous peoples through participatory training and the support and advice to and of rural communities and municipalities.

PROBONA/ECOBONA

The purpose of the Programme PROBONA, was that the actors that participate and influence Andean native forest ecosystems have adopted and encouraged political and handling modalities that promote their conservation. These objectives are similar for all three countries that participate in the programme and they should be reflected at the national, regional and local levels.

PHASES OF PROBONA[2]

Phase	Characteristic	Period
First phase	Identification of the problem	Year 1992
Second phase	Installation of the demonstrative actions in representative areas	October 1993 to June 1997
Third phase	Period of transition toward the consolidation	July to December of 1997
Fourth phase	Consolidation of demonstrative actions in management models	January 1998 to October 2001
Final	Massive regional diffusion of the technical and methodological knowledge acquired	2002 at 2007

ECOBONA is the continuation of PROBONA and was to be continued for seven years in two stages. The first stage was oriented to the institutionalisation of communal or municipal management of forests. This includes capacity building and knowledge management to improve forest management and protection. The second stage consists of actions needed for facing out. ECOBONA was also to benefit from lessons learned through the activities of FOSEFOR.

The area covered by the project in Bolivia is that of the dry inter Andean valleys of the departments of La Paz, Cochabamba, Potosi and Chuquisaca. These valleys have been intensely occupied for at least 7000 years and their forests have been subject to intensive use. Large portions of these valleys have lost their forest cover. In Bolivia the project does not cover the more humid valleys.

The main partners in implementation of interventions under PROBONA/ECOBONA are listed in the table below[3].

MUNICIPALITY	ORGANISATION
Municipio de Independencia 9 comunidades	Desanollo Sostenible Interandino (KÚRMI)
Municipio de Omereque. 6 comunidades	Radio Esperanza (Prelatura Aiquile)
Municipio de Coloma, una comunidad	Project Concern International
Municipio de Tomína. 18 comunidades	Centro internacional de Cooperación para el Desarrollo de la Agricultura (CICDA)
Municipio de Presto. 5 comunidades	Ceiitio Seccional de Presto y SERNAP-ANMI el Palmar
Municipio de Villa Serrano, 46 comunidades	Fundación para el Desarrollo Productivo y Ambiental (DE PROA)
Municipio de Inquisívi, 3 comunidades	Centro Interdisciplinario de Estudios Comunitarios (ClEC)
Municipio de Quime, 3 comunidades	Centro Interdisciplinario de Estudios Comunitarios (ClEC)
Municipio de Puna, 2 comunidades	Centro de Investigacion y Apoyo Campesino (ClAC)

[2] Table taken from: Instituto Socio Ambiental, ISA – Bolivia, Evaluación de Impactos, V Fase, Programa de Bosques Nativos y Agroecosistemas Andinos – PROBONA, La Paz, 2006

[3] Table taken from: Instituto Socio Ambiental, ISA – Bolivia, Evaluación de Impactos, V Fase, Programa de Bosques Nativos y Agroecosistemas Andinos – PROBONA, La Paz, 2006

Municipio de Vitichi 3 comunidades	Centro de Investigacion y Apoyo Campesino (ClAC)
Municipio de Entre Ríos. 2 comunidades	Protección del Medio Ambiente (PROMETA)
Municipio de Tarija, 9 comunidades	Comunidades de Estudio JAINA

SDC has delegated the administration and international execution from PROBONA/ECOBONA to Intercooperation, in association with the The World Conservation Union (UICN). Being Intercooperation the entity responsible for the Programme at operative level, it is also the regional coordination, with an indirect involvement of the two national Coordinators.

FOSEFOR

FOSEFOR´s goal was to increase the supply of quality seeds of native and exotic tree species through research, production and marketing. It helped strengthen existing seed centres to which FOSEFOR provided technical assistance. As indicated in its Final Report[4], the project had two phases, with specific objectives in each one of them.

> Phase I Objective (2000-2003):
> To promote common actions among institutions and players taking part in the seed market that foster the use of propagation material of high quality and known origin.
>
> Phase II Objective (2004-2005):
> To foster common actions aimed at dynamising the production-commercialisation chains of quality tree seeds in the Andean zones and supporting regulatory framework governing these chains. (Samiri-Pro-Gea, 2006)

In Bolivia, FOSEFOR has been associated with the forestry school in Cochabamba. Because of its location it is naturally linked to Andean forests. The project has supported reforestation in the Andean area covering a demand not supplied by other institutions.

1.4 Methodology

Initial information about the projects came from the set of documents sent by SDC to Baastel in September 2009 (Annex 5). A review of these documents became the basis for the elaboration of the Inception Report. Upon approval of the Inception Report, the Evaluation Team refined the data collection instruments, basically the semi-structured interviews to be applied in the field for three types of target audience/informants: i) Governmental and donor representatives, including those of the local SDC offices and Project Managers (this is the Macro and Meso level interview form, presented in Annex 3 ii) Local organisations directly working with the beneficiaries and the beneficiaries themselves (Micro level interview forms – one for implementers, one for beneficiaries- both presented in Annex 3). These instruments needed to be standardised and translated to Spanish before their application in the field.

The majority of the field work in Bolivia for this case study took place from January 29 to February 10 and culminated in a workshop on the field phase of the work in La Paz, on February 12. This mission included Mario Baudoin and Alain Lafontaine. Some additional sites and communities were to be visited prior and after the main mission by Mario Baudoin to complement the sample of sites covered by the case study, in accordance with the

[4] Samiri-Progea (Coordinación). 2006. Informe Final de la Fase II. FOSEFOR. Quito: Enero 2006

methodology established for this overall evaluation and the country coverage. The detailed mission agenda is provided in Annex 1 to this case study.

This review is not a summary of opinions and project documents, but an evaluation based on the review and "triangulation" of information contained in general SDC papers and documents pertaining to the three projects, on the one hand, and what was collected during the field visits, on the other. The Mission made an effort to be critical in the use of existing information and materials obtained from structured and semi-structured interviews to assess the key questions asked by SDC in its document: "**SDC´s Contributions towards Biodiversity: Impact in the Andean Region"**. In particular, the review emphasised the role of the Swiss cooperation and the three projects in helping implement the Convention on Biological Diversity (CBD).

In the remaining sections the evaluation will apply the DAC criteria of Relevance, Impacts, Effectiveness and Sustainability to the three projects/programmes, with a special emphasis on the Relevance and Impact criteria. At the end, some preliminary recommendations are presented.

2 Relevance

Relevance determines if projects and programmes were in line with the needs of beneficiaries, the existing legal and regulatory frameworks, and the key environmental concerns in the country. In this section, relevance will be examined for these three dimensions in this same order.

2.1 To the beneficiaries

These three projects/programmes were meant to contribute to the improvement of livelihoods in three different ways. Their approaches are complementary and have built on synergy between their respective themes.

The area targeted by the three projects/programmes is an area where the population is under conditions of extreme poverty and depends on wood for fire and construction. These demands are better satisfied by exotic species like eucalyptus and pine. These fast-growing species and the provision of support to grow them in degraded areas by the tree projects satisfy a demand that would otherwise be supplied by native species. Perhaps larger efforts of developing forestry with native species, as is also promoted by the three projects, will eventually result in reposition of the original vegetation. One has to remember that Bolivia has not been a country that has dedicated great efforts to forest management before 1996. The Andean forests of the dry valleys are not sufficiently attractive for large-scale forest management.

The approach of AGRUCO is quite different but it complements that of these two other projects. By design, it is mainly devoted to training of agricultural professionals to being more sensitive to the needs of local populations and the conservation of agrobiodiversity native to Bolivia. The conservation of native forests and native crops both require local communities to assume the task of managing their valuable environment. Thus this programme was meant to offer cooperation from an academic institution and environmentally oriented NGOs to local communities in order to produce a change in attitude towards native forests. The programme aims to incorporate traditional farmer's knowledge into the human resources development activities of a major university in Cochabamba. Its activities are oriented to research, teaching and interaction with traditional farmers and their social organisations. There are some basic premises which form the conceptual framework of AGRUCO and which are

innovative and depart from the usual agriculture school approach in the academic world, of which the programme is still part. So, overall, through its focus in its work with local communities, the programme is totally coherent with the improvement of livelihoods of the end users though it still is an academic effort. The value put on traditional knowledge and its agro-ecological orientation are the seal of this project and are also very much in line with the current and evolving policy directions at the national level.

AGRUCO has gone through a very interesting and at the same time dynamic process in planning its cooperation and exchange of experiences with social actors: Rural communities, Universities and development Institutions. The proponents have strived for greater participation spaces in the programme, while at the same time staying limited in terms of offer, given the conditions and nature of the programme.

The programme has worked since 1985 with local communities as an academic institution. It has been able to develop a very strong relationship with local organisations and is widely viewed with trust by grassroots organisations met by the evaluation team. It is a strong departure from the usual academic institution that maintains a distance with local farmers and native organisations.

The project incorporates indigenous farmers in the areas where their traditional communities are located. A participatory approach to research is an integral part of the project and the highly organised nature of these communities. This creates the conditions for the linking with the relevant socio-cultural groups.

Overall, the focus group results have also confirmed this relevant focus of AGRUCO and PROBONA/ECOBONA on the needs of the local beneficiaries and communities to improve their productivity, incomes, raise their social and cultural profile and preserve their equitable access to the resources in the areas covered.

2.2 To the institutional and policy framework

As the actions of the three projects were concentrated primarily in high altitude areas, they were of particular relevance to Bolivia`s Poverty Reduction Strategy Paper (PRSP) (2001). They were also compatible with evolving national priorities in conservation of biodiversity. Perhaps one of the most important contributions is having filled in an extremely important gap in the attention of conservation efforts in Bolivia. FOSEFOR as well as PROBONA/ECOBONA are regional projects and address problems common to the whole Andean region. The fact that they have planned for coordination and exchange of information are important in this regional context and consistent with the priorities outlined through broader regional cooperation agreements such as the Regional Andean Biodiversity Strategy of the Andean Community. All three project/programmes benefited and continue to benefit from the existence of highly structured communities. At present the orientation of the government of Bolivia is highly supportive, emphasising, through the new Constitution namely, the need for equitable access of indigenous population to resources, the drive for decentralisation and the important value to give to Indigenous knowledge in the national development agenda. In many ways, the projects/programmes, have been innovative in that respect, pre-empting from their work over the past 20 years, the present policies. Indeed, the work of SDC has been, to a large extent, focused through local communities and building on indigenous people need. That process, along with the small, pilot nature of the SDC projects and programmes, has provided a space for innovation.

With respect to AGRUCO, though the programme is clearly oriented towards biodiversity conservation it is mostly towards its native domesticated component. In this sense it is fully coherent with the Biodiversity Conservation Strategy of Bolivia and in line with international policy as expressed in the CBD. Its questioning of the “green revolution” emphasis on

productivity and uniformity in crops and practices is oriented towards domesticated bio diversity conservation and its promotion of the reduction of the use of agrochemicals have an indirect impact on wild biodiversity.

To conclude, all three projects/programmes aimed at working through national institutions to reinforce them. AGRUCO worked through the University in Cochabamba, the municipality and the producer's organisation in the communities. FOSEFOR links its efforts mainly through private seed providers and research institutions, and finally PROBONA/ECOBONA worked through and with the community and, ECOBONA in particular, through municipal structures.

2.3 To Biodiversity and the environment

The three projects have been targeted from the start in an area that has received little attention by the institutions in charge of forest conservation management in Bolivia. For obvious reasons the large lumber interests have had their attention on the more humid forests. This fact has driven the attention of national state institutions to the tropical lowlands. From this perspective, the projects/programmes were very much relevant to biodiversity and environmental threats in need of more attention.
The three projects are also concerned in their design to contributing to the CBD objectives. Biodiversity conservation, sustainable development and equitable sharing of benefits are all part of the design of these projects. The orientation of the project AGRUCO towards agrobiodiversity limits its impact on the whole of biodiversity. Nevertheless within its scope it is totally coherent with the three main objectives of the CBD. Moreover it is exceptional for an academic project in how it incorporates the participation of local actors and considers agrobiodiversity. FOSEFOR is perhaps less concerned with equitable sharing than the other two. In the three cases there has been an increase in the understanding of the situation of resource use in local communities. As a result there had been modifications to procedures and the orientation of the projects themselves making them more effective and sustainable in the long run. This brings us again they need to consider an adequate timeframe for real development processes. Both AGRUCO and PROBONA/ECOBONA had been influential in affecting policy at the national and regional levels. This has been clearly derived from the degree of ownership attained by these processes in many communities. The present Bolivian government is particularly sensitive to local farmer communities.

2.4 To emerging SDC priorities

Discussion of the Mission team with Government officials and project management have highlighted the positive relationship that is already present implicitly, but that could be reinforced in future programming between biodiversity management, climate change, and food security, all three issues being closely linked.

From the mitigation perspective, efforts promoted in the portfolio to promote forest conservation and promote reforestation (in particular in PROBONA/ECOBONA and FOSEFOR, but also to a more limited extent in AGRUCO) can in themselves promote climate change mitigation. There is also potential to link these conservation efforts more closely to Reducing Emissions from Deforestation and Forest Degradation (REDD) initiatives now being promoted by various national and international actors in Bolivia. In effect, funding through REDD could become an additional incentive for sustainable biodiversity resource management when it comes to the Native Andean forest. The government is yet to fully clarify how it wants to tackle the sharing of benefits from future REDD initiatives and this may have implications in terms of the incentives provided to communities to preserve biodiversity linked to such schemes. In addition, the efforts already promoted by PROBONA/ECOBONA and AGRUCO to support organic agriculture, and diversification, can participate to carbon

dioxide (CO2) mitigation efforts by reducing the emissions from the use of chemical fertilizer, while promoting greater food security.

In addition to mitigation to climate change, discussion with Bolivian actors have highlighted the potential to use biodiversity conservation as part of wider strategies to adapt to climate change, and in the process, improve food security. Indeed, changes in temperature and in water availability in the highlands that are predicted in Bolivia under the climate change scenarios, will necessarily have an impact on the productivity of crops and the types of crops that can be planted. For instance, different species of native potatoes are best suited to different altitudes, based on temperature, its variability, level of humidity, pest resistance, etc. By preserving the biodiversity of potatoes (or other plants) and developing improved plants on that basis, one is indeed developing a potential tool to adapt to the new climate and its impacts, and by the same token, provide some insurance in terms of food production and availability. Such a strategy would also best be approached from an integrated watershed management perspective, taking into account the impacts of climate change on this whole ecosystem and production area, especially in relation to water conservation and management concerns linked to future development under the climate change scenarios. Conversely, climate change will impact on biodiversity, promoting some species at the expense of others and vice-versa. There is thus a real potential for further studies and pilot work with Andean communities, linking the use of biodiversity, its evolution, and climate scenarios and climate resilience, to systematize this knowledge and its link to future food security. The watershed management approach now starting to be promoted by SDC in its portfolio in its work with local communities in Bolivia, offers good opportunities to mainstream the climate change adaptation concerns.

Furthermore, part of this systematisation can build on traditional practices and know-how from Andean populations, for instance, on climate bio-indicators and further inform the process of social and cultural adaptation to new climate realities. These social and cultural dimensions have all been central to the recent evolutions in the SDC biodiversity-related portfolio in Bolivia (through PROBONA/ECOBONA, AGRUCO, but also BIANDES, and now their transposition into the new BIOCULTURA programme). Further building on them can be a way forward in ensuring improved relevance of the Biodiversity portfolio of SDC to the emerging SDC priorities of climate change and food security.

3 Impacts

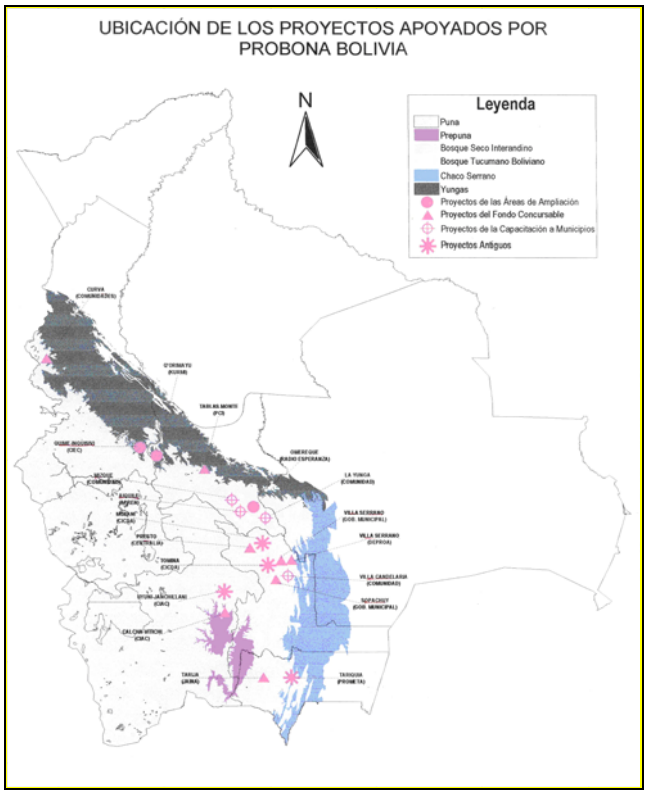
One of the problems with the evaluation of the impact in projects in general is the difficulty in having indicators related to those most important targets that reflect what the true aims of the project are. The difficulty is derived from the fact that when the projects are started and designed often there is no full understanding of the complexities of the Rio situation in the areas where the projects are going to take place. This results in a usual underestimation of the feasibility of the use of particular indicators. Bolivia presents particular difficulties in this respect. The availability of statistics is somewhat low and the areas in the field where the projects take place have often reduced availability of services. Something that has to be considered in this regard is the fact that a large portion of the economy is not formal and there are no registers of an important part of the transactions in the country. Barter is still practiced as one of the main forms of trade, and fairs are often established on a regular basis, often weekly, throughout the Bolivian Andes, allowing farmers to exchange goods without any exchange of money or registration of the transactions.

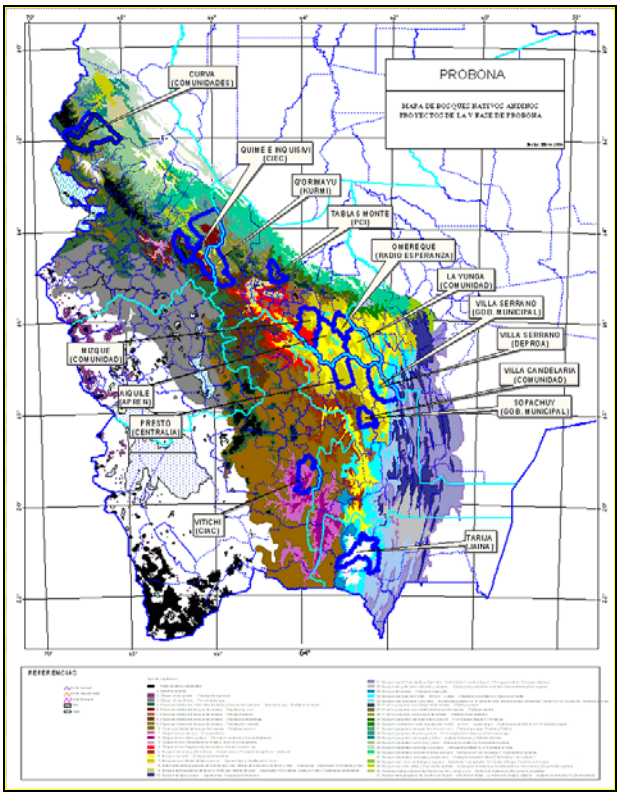
In the case of PROBONA/ECOBONA, in Bolivia, there has been a study of the socio-economic impacts of PROBONA in detail, using indicators and trying to establish a baseline. This source is of course used as relevant in the discussion below.

3.1 Impacts on local beneficiaries or the local area

As could be expected, focus groups and site visits revealed that the impacts on livelihood tended to be lower in the communities where SDC had been providing support a for shorter period of time. This was true at two levels: Between communities within a programme (e.g. two different ECOBONA site visited), and between programmes. For instance, the impacts of AGRUCO in communities it had been working for more than 12 years were much stronger than in the communities where ECOBONA had been working for 2 or 3 years, with an apparent higher degree of sustainability also in terms of institutional structures, etc. (Indeed, PROBONA and ECOBONA, while working in the same general zone, have been working with different communities in many cases, hence generally the shorter periods of work with any given communities when compared with AGRUCO).

PROBONA /ECOBONA have had two areas of concentration, one of them occupies the valleys of the Departments of Chuquisaca and Potosi, the other is in the north eastern part of Cochabamba and southeastern part of La Paz. Even though these areas are separated they still share a number of aspects in common. They are occupied by traditional communities, have difficult access and are extremely poor. Their long-term occupation has resulted in high impacts on forests. In the areas where the project is active, a total of 738,000 hectares of native forests covering 12.5% of the forests in the area had received some protection. 31% of the surface area is under communal norms and an additional 12% corresponds to protected forests recognised by the forest authority. Management plans of some sort on are being applied in 36,000 ha of native forests.





In northern Cochabamba, where field visits took place, the evaluation revealed that PROBONA/ECOBONA support has led to a diversification of the products and spaces used by local farmers. Fruit trees have been planted in the lower parts of the community of Pocanche and soil conservation practices have been supported in most of the slopes. Water management practices have been improved to allow fruit trees to grow at the bottom of the valley. Bananas, chirimoya, pacay, lemons, oranges, mandarines, avocados, wheat, native

patatoes, oca, papalisa, corn, barley, peas, are some of the fruits or crops that are being planted within one single community with the help of PROBONA/ECOBONA. This type of action obviously had impacts in terms of income available in families.

Evidence, for instance, comes from in the basin of the Q'orimayu River where the programme is already promoting this type of economic alternative for several years. The economic importance of these is substantial in relative terms (as is illustrated in the corresponding chart, for the families of Llavecita these items add 950 Bs. annually, that represent 47,5% of their revenues; for Zailapata the alternative revenues reach Bs. 1.450 that represent 51%; for Hills Bs. 600 that represent 46% and for Pajchanti Bs. 700 that represent 26%).

Table 1: Relative importance of the sources of revenue of the different economic alternatives in the communities of the Basin of the river Q´orimayu[5]

	Revenues per community (Bs.)			
	Llavecita	**Zailapata**	**Lomas**	**Pajchanti**
Revenues for traditional production				
Potato cultivation	150	500	100	1.000
Corn	500	500	300	500
Wheat	400	400	300	500
Sub total	1.050	1.400	700	2.000
% on the total of revenues	52,5%	49%	54%	74%
Revenues for alternative production				
Honey	500	800	200	100
Carpentry	200	350	100	600
Fruticulture	250	300	300	0
Sub total	950	1450	600	700
% on the total of revenues	47,5%	51%	46%	26%
Total	2.000	2.850	1.300	2.700

Other economic activities related to the forests have acquired economic importance. The production of honey is one of the activities that clearly benefits from the existence of the native forests. In two years before 2007, 2500 kilograms of honey were produced. At present an association of producers has been formed to facilitate marketing and added value is being obtained by the production of candy, shampoos and other products.

These impacts on economic activities were possible through work in close collaboration with the communities and municipalities and efforts in individual and organisational capacity building. Of the total of trained people under the programme, mostly at the community and municipal level, between 4.911 and 5.411 have been trained in topics of importance for the conservation of the Andean native forests and communal norms, 237 were qualified in subjects related to development of management instruments and practices of conservation, 383 were qualified in technical aspects of the production of alternatives (beekeeping 106, medicinal plants 20, crafts 7 and management of horticultural and fruit-bearing orchards

[5] Table taken from: Instituto Socio Ambiental, ISA – Bolivia, Evaluación de Impactos, V Fase, Programa de Bosques Nativos y Agroecosistemas Andinos – PROBONA, La Paz, 2006

250); finally, 75 people were qualified in topics relative to formulation of projects (10), accounting (10) and maintenance of equipment and mills (55)[6].

Table 2: PEOPLE TRAINED IN CONSERVATION OF FORESTS[7]

Detail	Nº	Course	People trained	Duration (Days)
1. Conservation of BNAs and communal norms	1	C-BNAs	91	7
	2	Communal norms	65	3
	3	Importance of BNAs and communal norms	2.700	74
	4	Training to Secretary of RRNN	10	1
	5	Reinforcement elaboration of communal norms	1.600	27
	6	Management of RRNN, C-BNAs and communal norms	445	
		Sub Total	4.911	112
2. Technical instruments of management, practical of conservation of floors and production of nurseries	7	Management instruments (POPs)	100	17
	8	Management instruments (PMF, POAF)	70	8
	9	Management instruments (PMSP)	43	6
	10	Practical of conservation of floors	23	
	11	I manage and production in nurseries	1	
		Sub Total	237	31
3. Technical training referred to alternative productive: beekeeping, production of orchards and vegetables	12	Beekeeping	106	62
	13	medicinal plants	20	24
	14	Crafts	7	15
	15	Management of orchards for the prod. vegetables and fruit-bearing TREES	250	
		Sub Total	383	101
4. Planning, pursuit and implementation of projects and accounting	16	Planning, pursuit and implementation of projects	10	
	17	Accounting and administration	10	2
	18	Mill maintenance and other teams	55	
		Sub Total	75	2
Total			5.606	246
Total without considering reinforcement training for elaboration of communal norms 4.106				

In the case of AGRUCO, formal agreements have been developed with local actors and a permanent relationship exists with communities, besides the personal relations developed by thesis researchers. The answer of the communities in general has been satisfactory; it seems that a balance has been achieved where the community have trust and interest in the shared work, with the security that the benefits will be mutual. This has been confirmed in the auto evaluation workshops.

AGRUCO has worked to support agricultural production of the communities. According to interviews in Tapacari the use of the Huaicha variety of potato including the use of organic methods has increase their production up to 300%. In Chorojo, mostly native species of potatoes have been reintroduced more recently through the Compass project managed by AGRUCO as well as native fruit tree species This particular potato is a native species that has been treated to reduce the presence of viruses and other disease as a contribution of the work of an NGO that is also supported by Swiss financing, PROINPA.

[6] Since in the case of Villa Serrano, reference is made to an initial training to 1.500 people in the topic of communal norms and then at 1.600 in "Reinforcement to communal norms", we think that it can be same people, for what it would not be necessary count 1.500 people again

[7] Table taken from: Instituto Socio Ambiental, ISA – Bolivia, Evaluación de Impactos, V Fase, Programa de Bosques Nativos y Agroecosistemas Andinos – PROBONA, La Paz, 2006

Some of the areas where AGRUCO works are at the limit that climate permits agriculture. It has helped local farmers to reduce to use of pesticides and use organic fertilizers. This has not only improved the quality of the production that it has also reduced costs. Focus groups revealed that beneficiaries feel that the newly produced potatoes have better taste because of the organic fertilizers. Facilities have been built to store production and to protect seeds. These are widely appreciated as having been important in improving production.

In the areas where trees can be grown, AGRUCO has supported reforestation. Native species of trees have been used in some cases. This has not been done before. Exotics are planted often because of their fast growth and their straight stems. As a result, there has apparently been a reduction in pressure on the scattered native tree stands that exists within the communities.

As a result of the intervention, people are also more conscious of the health hazards derived from chemicals, as the focus groups have shown. With their increased revenues due to the project intervention, families now can buy clothes for the family members. The education of the children is also benefiting as they have money to send them to school longer and pay their materials. The family diet is also more diversified, as they can buy other products with the profit from the excess production sold. They can make better use of medicinal plants for health related issues as they have no money to buy medicine. In that respect, the project allowed maintaining traditional knowledge about medicinal plants.

In Chorojo, another of the communities visited by the evaluation team, AGRUCO has also helped in plantation activities for exotic tree species in degraded areas. Some parts of the work of AGRUCO are very difficult to evaluate, such as their contribution to the self-esteem of the local populations. Nevertheless, their impact was evident from the interviews we had. In this as in many other aspects of rural life in Bolivia it is difficult to be totally sure of the origin of what one sees. The whole country has been in the process of change for quite some time. Grassroots movements have had a strong influence in the political life of the country. In the case that concerns us now there are two beneficiaries: rural local community and academia.

3.2 Impacts on Institutions, Policies and Political Frameworks

With the support from PROBONA/ECOBONA, at least 136 communities have developed communal regulations related to access to their forests. Of these, at least two have signed agreements setting aside protected areas within their forests. In Independencia, these norms have been the basis for the municipality to take action in trying to protect some very diverse areas within its jurisdiction. The most common reason given for forest protection during interviews and focus groups was its role in protecting water sources. The ecological trade-off concept has in this been the justification for the work in preserving the forest. However, one has to be careful because this benefit will mainly be applied to communities down slope from their forests and hence less meaningful for those that are not receiving direct benefit.

According to document review and interviews with key informants, the impact of the development of norms for the management of forests has broadened the scope of the usual norms at the community level. The norms now include regulations for water pasturing, hunting and fishing. This has also had an impact on the relationships with NGOs, other communities and different levels of the government. One has to remember that municipalities in Bolivia had jurisdiction limited to urban areas before the law of popular participation. So it is only within the past 10 years that municipalities have had to deal with the problems of production in rural areas. Norms therefore were not done to regulate these problems. At present however most of the municipalities of Bolivia have important areas in the country that require regulation. This involves most actors of development, including NGOs and the governments at the national and regional levels. The example has been set and present

communal norms have been incorporated at the municipality level in four cases in the Department of Chuquisaca. ATICA is a project that has worked to strengthen institutional capacities in rural towns and areas. It is obvious the important relationships that can be developed between such an institution and the work of PROBONA/ECOBONA.

The development of communal norms has been accompanied by an increase in the sense of ownership in local communities which have been part of the process of developing the norms. In the municipality of Independencia these norms had been used to generate regulations at the municipal level. Interviews with key informants revealed that these in turn have not been accepted well by communities which were not part of the process of developing them. This points out to the fact that there are processes that cannot be sidestepped and their times needed for processes to be assumed by communities.

To conclude, PROBONA/ECOBONA has provided training to a number of organisations which has apparently contributed to their empowerment and strengthening, as was related numerous times during the field visits by local representatives and heads of local production associations. A sample of trainings given is provided in Table 3 below.

In addition to training to local community members, in the municipalities where it has been active longest, the programme has also succeeded, in particular through its work under the most recent evolution, ECOBONA, to support the development of a genuine municipal capacity for biodiversity and natural resource conservation. This was evident in Independencia for instance, in terms of awareness of issues, the promotion of the municipal norms, funding under municipal budget of conservation activities with communities, financing of a tree nursery where over 40% of the plants were of native species, and the development of municipal strategic policies and management plan framework incorporating conservation issues.

In other municipalities visited, work with ECOBONA support was just starting, with 6 months to go. In such cases, it was far from evident to the evaluation team that any lasting impacts could be achieved, either in terms of livelihood improvement, or institutional performance by the municipal structure.

Table 3: Sample of training offered to organisations of producers by topics[8]

Nº	THEME	Training to organisations		People trained	Project
		Nº	Detail		
1	Organisational invigoration / elaboration of statutes	1	Integral association of Producing Inquisivi (AIP-Inquisivi)	30	1. Project AA M. Quime and Inquisivi The Peace-CIEC / Jan 2002-Dec 2005
2	Financial, organisational and operative administration of organisations economic peasants	3	Association of honet producing farmers of Omereque (APAMO)	54	2.Proyecto AA M. Omereque Cochabamba-CEDEAGRO and RADIO THRILLS / Jan 2002 to Dec 2005
			Association of producing of having derived of churqui, locust and palqui "KALPACHAQ"	55	6.Proyecto FC M. Vitichi Potosí-CIAC / Apr 2004 to Nov 2005
			Communal forest company "The Tapera"	10	7.Proyecto FC M. Villa Serrano Chuquisaca-DEPROA / Oct 2003 to Oct 2004 and Feb to Nov 2005
3	Management and production of honey	1	Association of producing of honey of Charts Mount	30	5.Proyecto FC M. Colomi Cochabamba-PCI / Nov 2004 to Jun 2005
Total		**5**		**179**	

To conclude, on PROBONA/ECOBONA, one must mention the impact the programme has managed in terms of national policy. Indeed, through its interactions and policy dialogue with the Department for Biodiversity, Forest Resources and Environment, the programme has managed in Bolivia to have The Native Andean Forest recognised as an area of priority for the National Government. The Conservation of that forest is now part of a programme line under the Strategic Institutional Plan of the Department (2006-2010).[9]

The impact of AGRUCO at the institutional level comes in different ways. Since it is basically an academic programme, a large portion of the impact comes in the form of its increased capacity to deliver academic services, knowledge, research and training. Since its orientation is based on the questioning of the Green Revolution approach to agriculture it is consistent with the target groups of Swiss cooperation. AGRUCO has gone well beyond training and has been working with local communities from the very beginning. That relationship developed between AGRUCO and local communities is certainly strong and quite evident in the interviews with local representatives and the focus groups.

The number of degrees conferred, the number of courses that taken place and other measurements of production in the University are regularly published. The impact of the process on society as a whole, on the well-being of native people or rural society is much more elusive. This of course is a problem with all educational programmes. In the case of AGRUCO however, from June 1990 to June 1995 a total of 27 courses have been carried out at a national level (six universities), having benefited to a total of 681 students, of which 417 have passed level one; and 264 students have continued with additional courses. From the UMSS there were 42 thesis carried out in or with AGRUCO and from other universities 19 thesis were carried out in or with AGRUCO. Of AGRUCO graduates 82% have work in diverse institutions. This is a much higher percentage than for agronomy students in general,

[8] Table taken from: Instituto Socio Ambiental, ISA – Bolivia, Evaluación de Impactos, V Fase, Programa de Bosques Nativos y Agroecosistemas Andinos – PROBONA, La Paz, 2006

[9] Ministerio de Desarrollo Rural Agropecuario y Medio Ambiente. Plan Estrategico Institutional del Viceministerio de Biodiversidad, Recursos Forestales y Medio Ambiente 2006-2010, p. 33

even if agroecology and the revaluation of rural traditional knowledge may have levels of importance given that are not always the same as in AGRUCO.

The practices targeted by the programme are those of traditional local native agriculture which form part of local farmer's communities. These practices are therefore not "new" but the intention of incorporating them into an agricultural university environment is "new" in the sense of differing from the standard.

Additionally, AGRUCO has established itself well in networks at the provincial, national and international level as clear from the evidence provided in the Table 4 below.

Table 4: Redes, programas y convenios de cooperación[10]

Redes, programas y convenios de cooperación	Actividades desarrolladas
Programas, Redes, Movimientos Internacionales y mandatos regionales	
Miembro del Movimiento Agroecológico de Latinoamérica y el Caribe (MAELA): **157 socios**	Participación en eventos de socialización de experiencias en Agroecología
Miembro del Consejo editor de la Revista Biodiversidad: Sustento y Culturas. Financia GRAIN-Amigos de la Tierra. España. **5 miembros**	Consejo editor de la revista, diferentes números
Programa regional Bioandes. Financiado por la COSUDE para Bolivia, Perú y Ecuador. Consorcio AGRUCO-ETC Andes y EcoCiencia. **33 socios**	Coordinación General del Consorcio y de Bolivia
Programa internacional COMPAS en África, Asia y Latinoamérica con **28 socios**. En Latinoamérica se trabaja con 7 países	Coordinación de Latinoamérica y de Sud América
Programa internacional CAPTURED Universidades de América Latina, África y Asia Financiamiento de la Cooperación Holandesa-DGIS. **9 universidades**	Coordinación de Latinoamérica, elaboración de plan estratégico y POA para inicio y desarrollo de actividades
Redes universitarias a nivel nacional	
Federación nacional de Facultades de agronomía de Bolivia (FAESCA). **10 facultades de agronomía**	Concejo asesor
Universidad Autónoma Thomas Frías de Potosí San Francisco Xavier de Chuquisaca San Andrés de La Paz Universidad Técnica de Oruro	Participación de estudiantes de estas unidades en cursos-taller intensivos (3 niveles) que AGRUCO desarrolla en comunidades campesinas
Convenios con Facultades y carreras en la UMSS	
Carrera de Agronomía Carrera de Veterinaria y Zootecnia ESFOR Escuela Técnica de Agronomía (ETSA) Facultad de Ciencias de la Educación Facultad de Ciencias Jurídicas y Políticas Carrera de Comunicación Social	-Participación de estudiantes de estas unidades en cursos-taller intensivos (3 niveles) que AGRUCO desarrolla en comunidades campesinas. -Participación de estudiantes en taller de titulación y como tesistas de pregrado en AGRUCO
Redes con universidades internacionales	
Universidad de Berna-Suiza. Centro de Desarrollo y Medio Ambiente	Continuación con el desarrollo de tesis de doctorado

[10] Agruco, Informe 2006-2007, p. 17

Redes, programas y convenios de cooperación	Actividades desarrolladas
Universidad de Ginebra-Suiza. Instituto de estudios del Desarrollo	Continuación con el desarrollo de tesis de doctorado
Universidad de Córdoba-España. Instituto de sociología y Estudios Campesinos	Participación de un docente de esta universidad en curso de maestría de AGRUCO
Universidad de Buenos Aires-GEPAMA (Argentina)	Participación de un docente de esta universidad en curso de maestría de AGRUCO
Universidad de Ghana. Universidad desarrollo-Tamale	Coordinación para el planteamiento (proyecto) y aprobación del programa CAPTURED
Consorcio de universidades para el desarrollo endógeno (UCED). Coordinador Latinoamericano. **5 universidades**	Coordinación para el desarrollo de talleres de motivación para la reforma universitaria en universidades de Chile, Normal superior de Tinta de Perú
Instituto Interamericano de Cooperación para la Agricultura (IICA).Foro Regional Andino para la Investigación y educación agrícola rural	Participación en la Secretaria Técnica del FRAIEDAR en representación de Bolivia

With respect to FOSEFOR, the programme has promoted the distribution of seeds for farmers and other interested stakeholders in the region. Through their activities they have been able to develop working relationships with a number of institutions and had been able to support the growth of private providers of seeds. Interviews suggest that FOSEFOR has managed, through its work, to systematize the process of certification of tree seeds in the country and promote their sale and use. Indeed, Bolivia, through its network of seed providers and nurseries that have developed in recent years, now sells over 10 million certified tree seeds a year.

Its work at the policy level, has resulted in the development of National norms for the certification of tree seeds, which, according to key informants, have served as an basis for Ecuador and Peru in the development of their own norms.

FOSEFOR has now evolved into BASFOR, an institution linked an operating out of the University in Cochabamba. By linking up to the Forestry School of the University, it has managed to ensure its financial sustainability to carry on its work. It is managing a Seed bank of tree seeds for more than 100 native tree species from Bolivia and has managed to attract some funding from other sources.

3.3 Impacts on the environment

In the case of PROBONA/ECOBONA the concept of ecological trade-off has been developed. According to this conception one can obtain actions along the conservation lands as a trade-off to their benefits today to the communities. This concept incorporates local needs as a source of incentives for conservation. This is certainly an advance over the times when conservation was just an additional task added to poor communities, although certain aspects of ecological trade-off are still an hypothesis to be confirmed.

On this basis PROBONA/ECOBONA has been negotiating the development of local norms with communities. All in all, in Bolivia, interviews and focus groups with communities suggest that PROBONA/ECOBONA has been successful in this endeavour. During the field visits there was common agreement among those met on a number of aspects about the norms. All agreed that the norms had been useful in preventing outsiders from using the forests without permission. People interviewed felt that this was partly derived from a greater sense of ownership of the patches of forest by the community as a whole.

Prior to that development, no person in the community assumed responsibility for damages in these communal areas. One of the main sources of impact in the area was production of charcoal. This activity was mainly realised by people from outside the area. One of the

results of this impact was the reduction of forest cover. This directly affected the use of the forest and local communities as a source of food for their cattle within the forest. The control of the encroachment of the external charcoal producers could only have been attained once community assumed control of the forest since individuals within the community would not assume the task for the rest. In this case the linkage between the norms and the benefit for the people, in charge of developing and establishing the norms, in other words the local community, is evident and constitutes the basis for the ecological trade-off.

Forestry and in general activities that deal with ecosystem management, as is the case in conservation of native forests, are long term and impacts are not necessarily felt in the short run. In this case however, the reduction of the pressure on the forest is immediately felt as a better availability of grass for their cattle. This is perhaps one of the reasons why the norms at the community level for the protection of forests have been so well received. The production of charcoal is well known as one of the more impacting activities related to local forests in Bolivia. For instance, People interviewed in the communities of central Chuquisaca said that up to 95% of the extraction of charcoal was stopped through the application of the communal regulations. In a meeting in Tomina with local leaders, representatives of two farmers unions which include 24 communities belonging to a central part of Chuquisaca informed the evaluation team that there was agreement that there was no increase in income to the members of the communities as a result of the programme but that they had better food for their animals, and that conflict and access to firewood had improved. Some money income was obtained from charging for browsing by animals from other communities. In another community where norms had been established and were implemented by the community, forest regrowth in the buffer zone was evident (see picture 1.), even though this is not in itself an insurance that biodiversity of that forest is preserved.

Picture 1: Native Forest re-growth in Sivingani

With respect to AGRUCO, the «agro-ecological » approach to agricultural production and science promoted through AGRUCO warrants the incorporation of these concerns. It is a basic premise for the whole design. Being an agriculture programme its emphasis is naturally put in domesticated biodiversity, where it is to be highly valued, especially due to the very important role of the area in the development of domesticated plants. Indirect effects of practices on wild biodiversity are also to be considered.

The conservation of within species diversity in domesticated plants depends on the maintenance of traditional agricultural practices by local farmers. In situ conservation is the way in which diversity is maintained both in wild as in domesticated systems. In this case all the factors that affect agricultural practices will affect agro biodiversity conservation.

The agrobiodiversity involved does have global importance; potatoes are one of the ten more important crops for world alimentation. The area involved in the programme includes some of the most important gene diversity areas for potatoes. Not to mention other undervalued crops. Comunidades Tapacarí, Huaca-playa, Japo.[11]

[11] Marco Sotomayor B, Evaluación de impacto de las actividades formativas en agroecología y saber campesino: el caso AGRUCO y la Universidad Mayor De San Simón, Cochabamba Bolivia, 1997

Since species survival and in general biodiversity conservation have as their largest cause of loss wild ecosystem conversion or habitat destruction, the programme's impacts on the sustainability of agricultural production for basic need satisfaction would result in conservation beyond agricultural land.

With respect to FOSEFOR, as already mentioned, the programme has worked mostly through private providers of seeds. Since these necessarily depend on income generated by the sale of seeds their existence is pretty straight proof of that demand of tree seeds in the area. The main provider of seeds has been working for at least 20 years and is located at El Alto near the city of La Paz. Verde Vida is a private enterprise that sells seeds of both native and exotic tree species. To this day, it offers a catalogue of over 50 species mostly native and provides instructions for planting them. Most of the species come from sources in Bolivia.

As mentioned before, FOSEFOR, through its now formal link to the Forestry School of the University of Cochabamba, is now managing a Seed bank of tree seeds encompassing more than 100 native tree species from Bolivia.[12]

Picture 2:Seedbank in operation Cochabamba

4 Effectiveness

The question is whether the goods have been delivered or not. This question in the case of conservation of biodiversity will always have to be answered only partway or on the basis of the coherence of the projects with the general scheme of conservation. The reason for this is that the result is to a large extent long-term permanence, and the future cannot be measured in the present.

The three projects are related to biodiversity conservation but to different degrees. PROBONA/ECOBONA has, as its main goal, the conservation of native forests. FOSEFOR on the other hand is more linked to a particular activity, forestry. Its emphasis on native species becomes the main link with biodiversity conservation. AGRUCO on the other hand, started by proposing an alternative to the green revolution that would be more appropriate for small Bolivian farmers. It was later that the link to biodiversity was better developed, native agrobiodiversity. All three projects have been effective in fostering biodiversity conservation. They have interacted positively in the geographical areas where their actions overlap. The importance of their presence in the dry valleys of Bolivia cannot be overemphasised. Mainly PROBONA/ECOBONA and AGRUCO have had a strong impact on the institutions in their

[12] FOSEFOR, Informe Final De La Fase II, Quito, Enero 2006

area of influence[13]. While PROBONA and ECOBONA have, through the development of norms, supported conservation actions at the community and municipality level, AGRUCO has worked more at the community level, and through training, at both the national and regional levels.[14]

These three projects have developed strong links with local communities and have been responsive to their demands. This has allowed them to change in time and be more effective in all of their goals. All have contributed to increase the income of the farmers, even if this increase is a long away from modifying their poverty condition.

In the case of these three projects/programmes in Bolivia, the link between biodiversity conservation and poverty alleviation becomes the basis for the projection of conservation in the long run. The appropriation of the small forests in the area by local communities depends on the benefits to them. There is evidence from the mission field work that these have been attained in Bolivia through PROBONA/ ECOBONA in a number of these important remains of the original Andean Forests.

AGRUCO has been able to create an alternative approach in agriculture in the most important agriculture school in Bolivia. At present almost 50% of the population are still farmers, most of them poor. The effects of these actions on the long-term support of academia for small farmers could go far beyond what can be detected now.

So, in this sense, it can be said that in Bolivia, the attainment of the poverty alleviation results sought by the three projects/programmes have been reinforced by the inclusion of the biodiversity dimension in those projects/programmes. In fact, in the case of Bolivia, interviews and literature review reveals that this dimension was at the centre of the strategy of the projects/programmes in their later phases and thus instrumental to their result achievements.

5 Sustainability

The question of whether the positive actions, capacities developed, institutions created and impacts of the projects/programmes will continue into the future is at the centre of all cooperation efforts. Sustainability has to be attained at many different levels and dimensions. Continuity of actions depends on the future availability of the resources and efforts dedicated to those actions. This in turn depends on the benefits, perceived by the beneficiaries. An interesting example of the importance of the social context in long-term sustainability is provided by the fact that the regulations for forests developed at the communal level have been working to a large extent, according to our focus groups findings and interviews with key stakeholders. On the other hand norms produced at the municipal level without local participation have had difficulties in being accepted by local communities, according to other key informants active in those local communities. This clearly points to the importance of processes that require some time and cannot be replaced by very punctual actions. It also shows that top-down approaches are not necessarily more efficient, since they do not necessarily deliver the goods.

Reaching sustainability is the result of the long-term effects of all the components, in addition to their relationship to the context. Since contexts do change in time there can be no assurance that sustainability will be attained, one can only make the best estimates. The three projects that concern this case study are quite different as far as sustainability goes.

[13] Informe Consultoría. Diagnostico de Incidencia Política. Feb./2007 ECOBONA
[14] Informe Consultoría. Diagnostico de Incidencia Política. Feb./2007 ECOBONA

Sustainability has often been considered only in terms of the financial aspects. Sustainability however extends well beyond those considerations in particular when dealing with projects at the community level. In this level, social aspects become extremely important and the relationship of the project to the cultural context is the framework in which the future will develop. The specificity of these aspects makes it difficult to have universal recipes for sustainability and indeed for most aspects of projects at the community level.

AGRUCO has shown a great capacity to communicate with local populations, environmental NGOs, local authorities and indigenous rights support groups. It has been very consistent in its approach and has been able to modify it as lessons were learned. Their emphasis on local populations and the extent to which they have developed a theoretical framework on the issue of traditional knowledge is particularly important in today's Bolivian context. At present the Bolivian government is knowledgeable of AGRUCO, its contribution and way of thinking. It has included AGRUCO into institutions that it has been regularly consulting for the drafting of the new constitution. This is certainly an important achievement in particular if one considers the somewhat tense relationship between the government and some NGOs in Bolivia. Overall, it can be said in this context that on the social and political aspects of sustainability AGRUCO has done reasonably well. A very important part of sustainability is of course the availability of funds. AGRUCO is part of the University of Cochabamba and the main personnel belong to the University and are paid by it. Thus a large portion of what has to be assured for AGRUCO is part of the university budget and the permanence of the personnel is protected by regulations about freedom of speech in the universities, tenure and the autonomy of Bolivian universities. The fact that AGRUCO has been able to obtain funds from different sources including SCD for more than 20 years makes it a very valuable asset for the University. One has to remember that funding is scarce in Bolivia and that often universities are not very proficient at obtaining funds. Another main source of funding for AGRUCO at the time of the mission was The Netherlands Cooperation, through its Compass programme, building on the approached developed with SDC support over the past 20 years.

While AGRUCO has worked in communities in the Department of Cochabamba and has developed strong ties with them, its academic work extends far beyond these communities, and being attached to the most prestigious agriculture school in Bolivia, its influence is felt in the whole country.[15]

FOSEFOR is associated to the forestry school, is part of a very dynamic unit of the University in Cochabamba and has also been involved in its relationship with local communities. The orientation of FOSEFOR however is not as responsive to social issues as that of AGRUCO. Its more traditional approach to academia has permitted a low level of intra-university conflict and its proficiency at obtaining support with other components of the forestry school at the University have produced a high level of support within the university. What has been said of AGRUCO about the sustainability of university support could also be said of FOSEFOR. At the same time, being a demand driven project in this sector, that has been traditionally neglected in Bolivia, self sustainability can be seen as precarious. One of the important achievements of FOSEFOR has been the development of Vida Verde a producer of tree seeds both from native and from exotic species that covers most of the Highlands, covered by these projects. As a private enterprise it has been able to prosper and its owner Mr. Julian Mamani seems quite confident in staying in business.

PROBONA/ECOBONA has covered a large portion of the dryer of valleys of the Bolivian Andes. In their work trying to develop communal norms they have established strong ties with local communities, farmer associations and municipalities. They have ample backing and people interviewed always showed the best attitude towards the institution. A large part

[15] La Participación en Redes y Movimientos Internacionales para el Intercambio, Sistematización, Difusión de Experiencias e Incidencia Política, Dora Ponce, 2007

of their success has depended on identifying needs in the communities that relate the norms to the patches of forest. The coverage from the northern parts of the Department of La Paz to the southernmost parts of the Bolivian Andes has required a very efficient and good working institution. Inter-cooperation has been the institution that has provided the backing for PROBONA/ECOBONA being so successful. However, the focus groups have revealed, that both from a social and economic perspective, part of the communities and municipalities PROBONA/ECOBONA has worked with, would require a longer process of accompaniment in terms of capacity building and alternative livelihood support to build resilience in the results achieved so far with these communities and their environment. This clearly militates in favor of longer term processes of involvement for future SDC support in those zones.

Inter-Cooperation has been able to communicate well with communities, both Quechua and Aymara in the whole area[16]. These communities have cooperated well with this NGO and have developed long-term projects. There is however not a clear way in which the functions of PROBONA/ECOBONA will continue. It is most likely that in the best cases, communities would assume ownership of the patches for forests and will continue applying the norms developed in the process. But as norms are being scaled up to the municipal level to apply to all communities, what happens with communities that were not part of the process? Who will promote their incorporation? Who will support the process of analysis necessary to develop the local norms? Who, essentially, will provide the resources for a sustainable scaling up of the norms and their impacts?

While it is certainly not desirable to establish permanent intermediaries, these processes require long-term follow-up and one cannot expect local institutions to develop these follow-up capacities without being part of that process itself.

Inter-cooperation has done its job well and it is to be commended, it is important however to assume the task of building sustainability at the institutional level. The permanent role of promoting and following up the conservation and sustainable use of Andean forests should be assumed by a permanent Bolivian entity, be that governmental or nongovernmental. At present there is no clear indication of what the best course of action would be, but for the sake of sustainability, Intercooperation will eventually have to stop its present role, however effective it might be at it. While the work with PROBONA/ECOBONA has had ties with the University's, it is clearly independent and would not be followed up automatically. Its work with local communities and municipalities will hopefully be continued, but at that level.

The financial sustainability of the work of PROBONA/ECOBONA, because of the type of forests involved, is weak at best. This should not surprise us because of the purpose of the project/programme, which is and was bringing attention to forests of marginal economic value but of the greatest importance as assets to the parties to the convention of biological diversity. As with many other issues within the convention this cannot be dealt with only on economical terms. These forests which are in the common interest of mankind will have to receive attention in the future and their conservation understood as permanence, with use, cannot rest solely on the shoulders of local communities. Since these forests and biodiversity conservation as a whole are part of the responsibilities of the State it seems reasonable to propose that an effort should be made to develop a permanent national capacity to face conservation of these forests.

[16] Interviews in Cochabamba and Chuquisaca communities

6 Main Lessons Learned

For the analysis of the case provided in this report, a number of lessons can be distilled. Here are some of the main important ones.

- The main elements of sustainability such as human resources, money resources, the existence of economic alternatives, social backing and its product, legitimacy, are much stronger in the communities that have received long-term attention by programmes such as AGRUCO. As well as in the municipalities where the relationship has been long as is the case of PROBONA ECOBONA. A longer-term investment is thus necessary in the communities that have been incorporated more recently in the programme to have some assurance of sustainability.

- Participatory processes are needed for sustainability to be attained in the long run.

- Even traditional communities can incorporate new ideas and follow them up.

- Changes in the context, as was the case with the government philosophy at present and its relationship to the AGRUCO approach can increase the likelihood of permanence.

- The acceptance and implementation of the new norms that ECOBONA is supporting at the municipal level could perhaps have some problems in the areas were this programme has not had much history.

- An integrated approach which is certainly coherent with the CBD guidelines seems to be the way to obtain sustainability in the real sense, social, economic, or cultural.

- Beneficial synergies can be built between portfolio intervention. For instance, there have been positive synergies between the executing institutions or agencies related to Andean forests. These include the production of seedlings by FOSEFOR for the work of PROBONA, the production of sanitised native potatoes by PROINPA which were used by AGRUCO in its support of locals farmers.

- Some of the areas that are being helped by the SDC supported interventions are very poor and do not have the best conditions for farming. Even if marginal, they still can produce reasonable conditions for local populations.

- Some qualities of local institutions can contribute strongly towards sustainability, for example their reliability in funding even if it's not large, as is the case with the University. This is particularly important when very profitable conditions are not present and where social aspects have to be considered.

- Conditions in one area or one country are not necessarily the same as in other areas or countries. This is of course obvious but perhaps it is less obvious that it implies that the lessons have to be learned at least partially in each space.

- Even if the contributions to conservation are not spectacular they still can be very valuable as is the case with Andean forests which otherwise would have continued being degraded in spite of their value.

7 Some key conclusions and preliminary recommendations

- *What are the recommendations for increasing positive impacts (strengths) and diminishing negative impacts (weaknesses) on biodiversity in the Andean Region?*

These three projects have been instrumental in bringing conservation of native Andean forests to the attention of Bolivian society at different levels. The fact that they have had so much impact in such difficult circumstances has been the result of their good tuning to local conditions. The strength of local organisations has certainly been an important component of these developments. New things have been introduced and therefore this is not strictly a book from up approach. It has not been just a demand driven effort, it has tried to reach a goal that was previously defined. But the process has been respectful and has considered local ways and the needs of locals. Even though the benefits are not great, in economic terms, they are there and have been well accepted. The recommendation that we can derive from these considerations is that projects have to consider time spans that permit participatory processes to mature. Assuming new ideas may require some time.

True participation is the only way to incorporate local populations in activities towards conservation of biodiversity. This requires time and effort more than recipes. The three projects have complemented each other and have derived benefits from other projects in the region. PROINPA has provided sanitised potatoes for AGRUCO to use in its activities and FOSEFOR seeds for PROBONA/ECOBONA. Benefits have been mutual but could have been more.

- *What are the recommendations on key factors for implementing successful biodiversity conservation while promoting sustainable development for beneficiaries?*

The strength of institutional support for biodiversity conservation has to be one of the factors that have contributed to the success of what has been done. Intercooperation has been an excellent executing agency. This in itself will make very evident the moment when it has to leave. A great effort should be devoted to making sure that there is an institution capable of giving continuity to the work that has been done. This of course is mainly a task of the Bolivian counterparts and institutions responsible for the sector. Nevertheless it would perhaps be good to dedicate some thought to this problem. A winning configuration was present in these projects. The stability of the University combined with fresh and challenging approaches to the problems at hand have resulted in a mixture that has been able to extend the influence to higher levels of organisation within Bolivia. A recommendation is that institutional stability be a strong component of design in future programmes.

- *What are the recommendations about what makes biodiversity interventions effective, efficient and sustainable?*

It seems that a clear understanding of what local organisations are, their cultural values and local needs are absolutely necessary for the interventions to be socially accepted and therefore sustainable in the long run. Conditions may determine what is feasible for the projects; the area in which they have been working is certainly not one of forest wealth. On the contrary, the poverty of the area and the harshness of the environment set limitations on what can be done. Expectations should be according to reality. The evaluation team's view is that a great deal has been accomplished with modest funding, if one considers the extremely large area covered by the projects. For some, the accomplishments could be seen at small but if one considers the little or no attention that was given to Andean forests before these projects the fact that local communities have designed norms regulating access to these

forests is in our view a substantial first step. At present we cannot be totally sure that the process will continue.

- *What are the findings and recommendations regarding the beneficiaries and non-beneficiaries at community, policies, institutional, and national level (roles, responsibilities and collaboration)?*

It seems that multiple actors working in a coordinated manner give stability to long-term processes like biodiversity conservation. In the case of Bolivia there is a long tradition of labor and grassroots organisations. These have well-established mechanisms for electing representatives, making decisions, and in general governing themselves and even perhaps the spaces and resources in their jurisdictions. In these projects, they have shown the capacity they have as valid actors in dealing with development. They may have great deficiencies in some technical matters but they have managed resources for a long time and can be a source of great knowledge if an adequate interaction is established. This is one of the strengths of the relationship developed between some of the actors in this case. These strengths should be capitalised in the relationships between different levels.

- *What are the recommendations to better address regional issues, such as in the Andean through programmes between Peru, Bolivia and Ecuador?*

Even though both PROBONA/ECOBONA and FOSEFOR are regional projects the specificities of each country particularly in relation to state community relations make it difficult and perhaps not productive to try to have a very tight regional approach. Nevertheless there is ample room for collaboration and exchange of experience as between the different countries training and information exchange are perhaps the greatest area of cooperation possible. Not all of issues are equally fit for treatment at the regional level.

- *What are the recommendations to improve the mainstreaming of biodiversity concerns in SDC portfolio while keeping the poverty alleviation objective well in focus?*

One of the main recommendations in this sense should be that the projects beyond the last with regards to contradictions. There are examples of projects financed by the same agency at odds one with the other. This is the case of promoting plantations of exotics at the same time that there are efforts to conserve native biodiversity. This is not the case of saying that exotics have no positive impact on biodiversity but to say that there is potential conflict that has to be dealt with. Since there are no manuals and global for new approaches or developments one has to be creative and persistent and finding solutions along the way.

- *What are the recommendations to better position and focus the biodiversity convention within SDC's portfolio in general and in Bolivia in particular, while keeping the poverty alleviation objective well in focus.*

Since there is no contradiction between the generation of a better life for local populations and the maintenance of the natural heritage and open approach to the economics of wildlife and native biodiversity would provide ample answers. This is however a case-by-case problem and in all of them, one has to be careful to establish the monitoring and feedback mechanisms to avoid resource depletion or destruction.

- *What are the recommendations to improve the link between biodiversity activities/components of the SDC support and the new climate change and food security priorities of SDC? What would be specific and ideal intersections in the portfolio to bring more in focus the climate change (adaptation and mitigation) and food security agendas?*

The case of potato is one of the examples where this question can be addressed. It is in the Andean countries that the greatest wealth of germplasm of potatoes exists. It is clearer than ever that it is from here that answers will come for the needs of new varieties in a changing climate. This is pertinent of course both for food security and adaptation to climate change. A better knowledge of what the qualities are of native germplasm would certainly be desirable. Linking that with knowledge of the way native communities have dealt with climate uncertainty in the Andes may be that rich source of solutions that is needed.

ANNEXES

Annex 1

Detailed mission Agenda

Misión a Bolivia Evaluación Externa Biodiversidad
29 de Enero – 12 de Febrero de 2009

Versión: **11/02/2010**

8:06:56
HERAN/ANTCA
Programa

Fechas	Hora	Objetivo y Actividades	Actores involucrados	Lugar
28.01.2009 Miércoles		Llegada a La Paz - Aeropuerto El Alto y transfer al Hotel	Transfer del Hotel	Hotel Europa C. Tiahuanaco 64 (detrás del paseo de El Prado) Tel.: 2315656
29.01.2009 Jueves Reuniones MACRO	8:30 – 10:00 11:00-12:00 12:30-14:30 14:00-15:00 16:00 – 17:00 17:30 – 18:30	CORLAP (Oficina de coordinación La Paz) Programa Nacional de Cambio Climático Participación de la Reunión de Donantes que trabajan con diversidad FAO (A cargo de PROBONA I Phase) Internacional Union for the Conservation of Nature (IUCN) Conservación International	 Oscar Paz Varias Instituciones Gonzalo Flores Oscar Loayza Eduardo Forno	La Paz Calle 13 #455, tel:2751001 C. Mercado, Ed. Mariscal Ballivián (Mezanine) Calle 13 #455, tel:2751001 Av. Ecuador Plaza España C. Gabino Villanueva # 340 entre C. 24 y 25 de calacoto C. 13 de Calacoto # 8008 entre Bustamante y Patiño
30.01.2009 Viernes Reuniones MACRO	8:30 – 10:30 11:00 – 11:45	Intercooperation PROBONA (estudio de reducción de presiones)	Javier Zubieta Ximena Aramayo	C. Rosendo Gutierrez entre Ecuador y Abdón Saavedra # 704

Fechas	Hora	Objetivo y Actividades	Actores involucrados	Lugar
	17:00	Instituto Socioambiental (PROBONA)	Luz Maria Calvo	Of. Av. Doctor Michell # 7744, Bajo Seguencoma
31.01.2008 Sábado	7:00 Reserva con Regines Tours 7:45	Salida del Aeropuerto del Alto – La Paz Llegada al Aeropuerto Jorge Wilsterman		Hotel Portales Av. Pando Nº 1271 La Recoleta Tel.: 4285451 Cochabamba
31.01.2009 Sábado Reuniones MESO	9:00 – 12:30 14:30 – 17:30	AGRUCO - Presentacion de Proyectos y Programas Reuniones con actores claves (mandaran propuestas de los entrevistados)	Presentaciones, reuniones con actores clave Se esta coordinando con Fredy Delgado y Juan Carlos Mariscal	Agruco – Cochabamba Pernoctar Hotel Portales
01.02.2009 Domingo Reuniones MICRO	8:00 – 18:00	Visita Comunidades Tapacarí (Huaca Playa y Cuenca Jutamayu)	Entrevistas y visitas, para ver el programa AGRUCO	Tapacarí - Cochabamba Pernoctar Hotel Portales
02.02.2009 Lunes Reuniones MICRO	8:00 – 18:00 19:00	Visita Municipio de Tapacarí y actores clave Viaje a Japo	Entrevistas y visitas para ver el programa AGRUCO	Tapacarí - Cochabamba Pernoctar Hotel Portales
03.02.2009 Martes Reuniones MICRO	Entre 9:00 y 10:00 14:30 – 15:30 15:30 – 16:30 17:00 – 18:00	Los Recogen de Japo Ximena Aramayo Reunión con la Alcaldía Reunión con la Central Campesina Reunión con la mesa de concertación	Entrevistas y visitas para ver el programa PROBONA Y ECOBONA (Fupagema, etc.)	Japo - Independencia Independencia – Cochabamba Pernoctara en Independencia (hostal)
04.02.2009 Miércoles	8:30 – 18:30	Visita a comunidades de independencia (Microcuenca del Q´Orimayu)	Entrevistas y visitas para ver el programa PROBONA Y ECOBONA (Sivingani y Pocancha tentativas son las mas cercanas)	Independencia – Cochabamba Pernoctara en Independencia (hostal)

Fechas	Hora	Objetivo y Actividades	Actores involucrados	Lugar
05.02.2009 Jueves Reunión MESO	7:30 – 12:30 14:30 – 18:30	Viaje Independencia – Cochabamba Reunión conjunta con distintas instituciones vinculadas al Programa PROBONA en Cbba.	 KURMI CEDEAGRO CIAC CIEC (Sergio Quispe)	 Cochabamba Pernoctar Hotel Portales
06.02.2009 Viernes Reunion MICRO MACRO MESO	 8:30 – 10:30 11:00 – 14:30 16:00 – 17:00	ECOBONA Alcaldía Morochata y Centrales Agrarias de Morochata, Chinchiri y Yayani PROINPA (Reunión con almuerzo en sus instalaciones) Reunión con CIOEC-DAC-AI (Consorcio)	 Presidente MMCHC (Constancio Salazar) Reunión con Antonio Gandarillas Representantes CIOEC	 Quillacollo – Cochabamba Pernoctar Hotel Portales Quillacollo – Cochabamba Cochabamba – Ciudad c. Jordan # 255 piso 3º of 17-22, entre Amiraya y Junin Pernoctar Hotel Portales
07.02.2009 Sábado Reunión MESO	9:00 – 13:00	Reunión conjunta con distintas instituciones vinculadas al Programa FOSEFOR, es la contraparte En el caso de ESFOR y BASFOR están trabajando con ECOBONA Cierre con almuerzo	ESFOR (Mario Escalier) BASFOR (Fimo Alemán) BAGAF CIAC Oficina Regional de Semilla (Semillas Forestales) Julian Mamani	Cochabamba Escuela Forestal Pernoctar Hotel Portales
08.02.2009 Domingo	20:40 Reserva con Regines Tours	Retorno a La Paz		Cochabamba
09.02.2009 Lunes Reunión MACRO	 10:00 – 10:45 11:45 – 12:15 15:00 – 16.00 16:30 – 17:00	 LIDEMA FUNDESNAP SERNAP DANIDA	 Jenny Gruenberger Sergio Eguino Edwin Camacho Andreas Brogaard	La Paz Av. Ecuador c. Prolongación Cordero # 127 C. Francisco Bedregal # 2904

Fechas	**Hora**	**Objetivo y Actividades**	**Actores involucrados**	**Lugar**
10.02.2009 Martes Otras Reuniones	9:00 – 10:00 10:30 – 11:30 14:30 – 15:30 17: 00 – 18:00 18:00 – (Confirmar con 3 días de anticipación)	GTZ Holanda Fundación PUMA (Por la temática no proyecto) Ex Vice Ministro del Ministerio de Desarrollo Sostenible (Actual resp. Del área ambiental de la CAF)	Juergen Czerwenka Rob van den Boom Juan Carlos Chaves Gonzalo Mérida	La Paz Of. En SERNAP- C. Francisco Bedregal # 2904 Of. c. Miguel de Cervantes # 2977 (Sopocachi) C. Miguel de Cervantes # 2977 (Sopocahi) Of. Ed. Multicentro, Torre B 4º piso 8 402) Of. Av. Arce 2915 (San Jorge)
11.02.2009 Miércoles	9:00	Preparación para Taller final de misión con		La Paz Hotel Europa
12.02.2009 Jueves	9:00	Taller de Cierre de la Misión con presencia del Viceministerio de Biodiversidad, Recursos Forestales y Medio Ambiente + CBD (Juan Pablo Ramos)		La Paz Hotel Europa
13.02.2009 Viernes		Viaje de Retorno		La Paz

Annex 2

List of People met

Oscar Paz Programa Nacional de Cambio Climático

Gonzalo Flores FAO (A cargo de PROBONA I Phase)
Eduardo Forno, Fondo Nacional de MA
Javier Zubieta, Ximena Aramayo Intercooperation

Luz Maria Calvo Instituto Socioambiental (PROBONA)

Agruco:
Fredy Delgado y **Juan Carlos Mariscal, Nelson Tapia, Dora Ponce, Cesar Escobar, Gilberto Lisperguer, Reynaldo Mendieta, Edgar Cuba**

Jaime Claros, Juan Carlos Mariscal,
Dirigentes de las comunidades (tres Cruces, Lambramani, Chaquteani, Rodeo): **Gelberto LIsperguer** y **Abel Agreda**), **Subcentral Jantun Mayu**, **Dirigente de Chorojo**
(Zona de Tallija-Confital, Ayllu Majasaya): **Pedro Gutierres** (alcalde) **Natividad Guzman** (Consejales), **Francisco Huayta** y **Scarias Revollo** (CINEP), **Autoridades originarias** de **Tallija, autoridades sincdicales**, **Central Majasaya**, **Dirigente de Japo**, **Dirigentes comunales**

PROBONA
CIEC (**Sergio Quispe**)
Ecobona: Presidente MMCHC (**Constancio Salazar**)

Proinpa:
Antonio Gandarillas

Fosefor:
ESFOR (**Mario Escalier**)
BASFOR (**Fimo Alemán**)
Oficina Regional de Semilla (Semillas Forestales)
Julian Mamani

LIDEMA
Jenny Gruenberger

FUNDESNAP
Sergio Eguino

SERNAP
Edwin Camacho, Andreas Brogaard
GTZ
Jorgen Chervenka

Holanda
Rob van den Boom

Gonzalo Mérida (Ex Vice Ministro del Ministerio de Desarrollo Sostenible)

Other people met:

Alcaldia Municipal de Morochata
Saul Solis
Luis Ayala
Sabino Gorris
Remigia Caberros
Miguel Martinez
Maxime
Constantino Jaillitu
Roman Choquerillas (Alcalde)
Hubar Romero
Florian Riveros
Marcelina Zanchia
Marcia Terrazas
Erwin Flow
E. Terrazas
Exequiel Roquero
Julian Vilalo
David Apazo

3 February 2009 Independencia
15h 30
R. Oscar Cabre Coca (H. Alcalde Municipal de Independencia)
L. Napoleon Quando. C. (Director Desarrollo Productivo RR. NN. Y MA)
16h 30
Indalicio Colomi

5 February, 2009 Morochata
Constantino Jaillita (Oficial Mayor-H.A.M. M.)
David Hpayaf (Regional Vilayaqui-Vilayague)
Julian Vilodo (C. Regional Yayani-Yayani)
Saul E. Solis V. (Tecnico Univdad Forestal y Medio Ambiental-H.A.M.M.)
Heber Romero V. (Director Desarrollo- Alcaldia MOrochata)
Florian Riveros (Actas de subcentral-Totor K`asa)
Marcelino Zanabria (Central Regional-Totrani)
Macaro Zerroya (Dirigente-Zorza)

5 February, 2009 Morochata 16 00
Jose Pardo B. (Coordinador Cbba)
Ruperto Vidal (Coordinador pro. Ecbona- CIOEC-CBBA)
Graby CAillavy (Gerente AGroinnovaciones –Bolivia SRL)
Gino catacara (Representant DAC-SRI)
18h 00
Ricardo Vera Aranibarr (Tecnico-Kurmi, Cochabamba)
Breny Isabel Ugarte (Tecnico-KURMI, Cochabamba

6 February 2009 Curmi
Jaqueline Garcia
Reina Maria Cordova P.
Jonny Lesn Balderrama

29 January, 2009 (SDC)
Mauricio Zaballa omero (PNCC)

30 January, 2009 Intercooperation
P. Bruno (Asesor tematico)
Javier Zubieta H (Representante Bolivia)
Ximena Aramayo (Coordinadore ECOBONA)

31 January 2009-03-12 AGRUCO
Abel Agreda (Tecnico-COMPAS)
Alvaro Torrico (Tecnico pasa-AGr)
Juan Carlos Mariscal (Coor. BioAndes-Bolivia)
Dario Cuajera Nahui (Tecnico-COMPAS)
Reynaldo Mendieta (Coord. Zona Puna)
Jaime Delgadillo P. (Resp. Interaccion Social)
Edgar Cuba H. (Respo. Proy. Chuno)
Wilfredo Jallaza (Tecnico BioAndes)
Zulma Camacho G. (Resp. Educacion)

Annex 3

Questionnaires for interviews and focus groups

Spanish version of the questionnaire used with governments, SDC, programme Directors and donors. Interviews were roughly 30 each and questions were raised as appropriate and needed.

PARA FUNCIONARIOS DEL GOBIERNO (VARIOS NIVELES), EL PERSONAL DE COSUDE, DIRECTORES DE PROGRAMAS Y OTROS DONANTES

PERTINENCIA

1. ¿Cómo estaba el programa (proyecto) orientado a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos?

2. ¿Cómo habían expresado los beneficiarios sus deseos de mejorar su situación a través de aumentar su acceso y uso de la flora y fauna nativa? ¿Cómo eran relacionados el diseño del proyecto y el uso de la flora y fauna al mejoramiento de los beneficios de los usuarios?

    a) ¿En su diseño, ha introducido el programa/proyecto auspiciado por COSUDE nuevas prácticas y usos que hayan beneficiado a la población local? ¿Como?
    b) ¿Se tomó en cuenta la sostenibilidad ecológica en el diseño del proyecto/programa? ¿Como?
    c) ¿Se ha abordado en estos proyectos (programas) el papel que juegan hombres y mujeres y los impactos diferenciados en su desarrollo? ¿Como? ¿En su concepción, cómo ha sido el programa (proyecto) respetuoso de los valores y cultura locales?

3. En el diseño del proyecto (programa), ¿Cómo se consideraron las prioridades nacionales y regionales de biodiversidad (flora y fauna) y los planes oficiales de reducción a la pobreza y/o desarrollo nacional?
    a) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) lo que se hacía (hace) como parte de iniciativas de los países andinos?

i) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) los compromisos suizos al CBD?

b) ¿Cuál fue el nivel de coherencia hay entre los objetivos y métodos de COSUDE y los objetivos y enfoques de los países?
c) ¿Cuáles cambios hubo en las prioridades nacionales y regionales influenciados por el apoyo de COSUDE?
d) ¿Cuáles cambios hubo en la prioridad dada a la biodiversidad a nivel nacional o regional debido a proyectos (programas) de COSUDE?

4. ¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados en la región y los objetivos del programa de COSUDE?

5. ¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados ya sea a nivel de sub-especies o variedades de especies y hábitat en la región y los objetivos del programa de COSUDE?

6. ¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las prioridades que podría traer el cambio climático (mitigación y adaptación) en las zonas del proyecto?

7. ¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las crecientes preocupaciones por la seguridad alimentaria?

IMPACTOS

8. ¿Cómo ha logrado el programa (proyecto) a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos? ¿Los usan ahora más que antes? ¿Cómo se ha traducido esta mejoría de acceso en la vida diaria de los beneficiarios?

9. ¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre las prioridades a nivel nacional y regional?

10. ¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre políticas al nivel municipal y provincial?

11. Impacto de las actividades de biodiversidad de COSUDE sobre:

i) Los modos de vida de las poblaciones rurales, incluyendo impactos indirectos socio-económicos que siguen al impacto directamente relacionado con la biodiversidad. (La biodiversidad puede tener impacto sobre el bienestar, particularmente a través de sus impactos sobre los modos de vida, la salud y las instituciones políticas).

ii) La gente pobre, especialmente los que viven en áreas con baja productividad agrícola, que dependen fuerte y directamente de la diversidad genética y de la biodiversidad de ecosistemas para mantener su subsistencia.

a) ¿Cuáles cambios han habido en la incidencia de pobreza en las áreas de trabajo de COSUDE? (Por sexo y grupo étnico si la información está disponible). ¿Cuál fue el aporte de los proyectos de COSUDE que incluyen biodiversidad a estos cambios?
b) ¿Cuáles cambios han habido de ingresos de las familias relacionados con los usos de la flora y fauna nativas?
c) ¿Para qué usan las familias estos nuevos ingresos?
d) ¿Cuáles cambios han habido en la posición social correlacionados con cambios en el uso de los recursos biológicos (por sexo y grupo étnico si la información está disponible)?
e) ¿Cuáles cambios han habido asociados en la nutrición y salud de las familias?
f) ¿Qué otros cambios socio-económicos y políticos, voluntarios o involuntarios, han sido identificados (por sexo y grupo étnico si la información está disponible)?
g) Con respecto a los recursos de flora y fauna, ¿Cuáles cambios han habido en su distribución, gestión, acceso o control? (Por sexo y grupo étnico, en lo posible).

12. ¿Qué ha sido el nivel de acceso, y de uso sostenible de recursos naturales?

13. ¿Cuánta participación ha habido en la preparación y gestión de los proyectos COSUDE?

14. ¿Cómo fueron tomados en cuenta los principales sectores económicos en el área considerado por los programas? ¿Hay algún impacto sobre la sostenibilidad ecológica a causa de cambios en actividades económicas por los programas de COSUDE? ¿Cuál?

15. ¿En que aspectos ha mejorado la capacidad de las instituciones asociadas a proyectos COSUDE?

16. ¿Cuán eficaces son ahora esas instituciones fortalecidas (empoderadas)?

17. ¿En cuanto a la biodiversidad, ha habido conservación? ¿Como? ¿Ha habido mejora o pérdida de biodiversidad en las áreas consideradas por los programas de COSUDE? Por ejemplo,
    a) Cómo consecuencia de los proyectos COSUDE, ¿Cuáles cambios hay en la cubierta forestal de especies nativas en las zonas beneficiadas?
    b) ¿Cuáles cambios hay en el número de especies usadas de manera sostenible?
    c) Cómo consecuencia de los proyectos COSUDE, ¿Cuáles cambios hay en la superficie y el número de áreas conservadas?
    d) ¿Qué cambios hay en la presencia o abundancia de especies nativas en las áreas beneficiadas?
    e) ¿Qué cambios hay en el número de variedades de cultivos nativos conservadas o bajo usos sostenibles que puedan atribuirse a los proyectos COSUDE?

f) ¿Puede decirse que los proyectos COSUDE han ayudado a proteger recursos naturales en el largo plazo? ¿Como?
g) Cómo consecuencia de los proyectos de COSUDE, ¿cuales cambios hay en la situación legal de tierras que podrían contribuir a la protección de la flora y fauna nativas?
h) Cómo consecuencia de los proyectos de COSUDE, ¿Cuáles instrumentos legales y capacidades de fiscalización y (¿sanción?) se han establecido para la protección de la flora y fauna nativas?
i) Cómo consecuencia de los proyectos de COSUDE, ¿Qué capacidad financiera y compromisos de largo plazo existen para la protección de la flora y fauna nativas?

18. ¿Hasta qué punto la conservación y los usos de los instrumentos legales apoyados por los programas de COSUDE son compartidos por todas las partes interesadas al nivel local, regional y nacional?

SOSTENIBILIDAD

19. Cómo consecuencia de los proyectos de COSUDE, ¿cuál es la probable sostenibilidad política e institucional de los resultados logrados y qué hubiera podido mejorarla?
    a) Cómo consecuencia de los proyectos COSUDE, ¿Cómo ha cambiado el nivel de compromiso político con la conservación de la BD?
    b) Cómo consecuencia de los proyectos, ¿Cómo han mejorado los servicios proporcionados por las instituciones fortalecidas?
    c) ¿Cuál es el nivel de mejoramiento en la entrega de servicios como resultado del apoyo de COSUDE?

20. ¿Son socialmente y culturalmente aceptables los resultados y qué hubiera podido mejorar esa aceptación?
    a) Con respecto a los proyectos de COSUDE, ¿cuáles son los impactos socio/culturales positivos medidos y cómo se comparan éstos con los efectos negativos o involuntarios que pudieran haberse producido?

21. ¿Cómo serán económica y financieramente sostenibles los logros de los proyectos COSUDE y qué hubiera podido mejorarla?

    a) ¿Se han medido impactos económicos y financieros positivos y se los ha contrastado con impactos negativos e involuntarios?
    b) ¿Hay financiamiento y mecanismos comprometidos para una futura conservación y usos sostenibles de la BD y para ayudar a modos de vida sostenibles?
    c) ¿Cuál es la viabilidad financiera y económica de los planes de modos de vida desarrollados en los proyectos de COSUDE?

22. ¿Cómo serán ecológicamente sostenibles los resultados logrados en los proyectos de COSUDE y qué hubiera podido mejorar esta sostenibilidad?

EFICACIA

23. ¿Qué tan exitosos fueron los programas de COSUDE en lograr sus resultados en lo que a usos sostenibles de la biodiversidad concierne?

¿Cómo han contribuido las actividades de BD de los programas/proyectos a lograr la meta de aliviar la pobreza? ¿La influencia de las componentes de biodiversidad ha sido mayor en lo político, institucional, socio-económico o ecológico?

Semistructured Interview for micro level (focus groups and other micro level stakeholders) (Spanish)

PARA ORGANIZACIONES LOCALES TRABAJANDO DIRECTAMENTE CON LOS BENEFICIARIOS.

1. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?
   1a. (Si sí a 1): ¿Estuvo involucrado (a) personalmente en el proyecto de alguna forma?
   1b. (Si si a 1a): ¿Cómo?
   1c. (Si sí a 1): ¿Cuáles fueron (son) las metas del proyecto?
   1d. (Si sí a 1): ¿Cómo se intentó lograr esas metas?

2. Algunas de sus actividades tenían que ver con la conservación de la biodiversidad, ¿cómo clasificaría el éxito final del proyecto? (altamente satisfactorio AS, satisfactorio S, moderadamente satisfactorio MS, insatisfactorio I)
   2ª. ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?

3. ¿En los años transcurridos cómo ha cambiado el estado de la conservación de la flora y fauna en el área? (mejor/igual/peor)
   3a. ¿Por qué lo clasificó así? ¿Qué datos apoyan su afirmación?
   3b. (si 'mejor; o 'peor' a 3): ¿Cuáles son las causas por las que ha mejorado/empeorado la situación?

4. ¿Qué cambios sociales/económicos/políticos han ocurrido durante el proyecto (desde el inicio o desde el final) que hubieran podido afectar la conservación de la biodiversidad?
   a) ¿Cree que COSUDE incidió en el alivio de la pobreza en su área de trabajo? (Por sexo y grupo étnico si la información está disponible).
   b) ¿Cuáles cambios ha habido de ingresos de las familias relacionado con los usos de la flora y fauna?
   c) ¿Qué usos le han dado las familias a esos nuevos ingresos?
   d) Con respecto al proyecto auspiciado por COSUDE, ¿los cambios en los modos de vida y en el uso de los recursos (por sexo y grupo étnico si la información está disponible) han cambiado la situación social de las familias?
   e) ¿Cuáles cambios han habido en la nutrición y salud atribuibles al proyecto?
   f) ¿Se han identificado otros efectos del proyecto auspiciado por COSUDE ya sea socio-económicos o políticos, voluntarios o involuntarios (por sexo y grupo étnico si la información está disponible)?

g) ¿Cuáles cambios produjo el proyecto COSUDE en la distribución, gestión, acceso o control sobre los recursos de flora y fauna (Por sexo y grupo étnico)?

4a. (Para cada cambio listado): ¿Cómo afectó este cambio la conservación de la flora y fauna?)
4b. (Para cada cambio listado): ¿Fue posible prever este cambio antes de que terminara el proyecto?
4c. (Para cada cambio listado, y sí en 4b: ¿El proyecto anticipó el cambio y se planificó para ello?
4d. (Si sí a 4c): ¿Cómo?

5. (Si sí a 1): ¿Cómo sería el estado de la conservación de la biodiversidad hoy día si no hubiera existido el proyecto/programa de COSUDE? (mejor/igual/peor)
   5a. (si 'mejor' o 'peor' a 5): ¿Por qué?
   5b. (si 'mejor' o 'peor' a 5): Después del final del proyecto, sigue siendo válidas estas razones o ha cambiado la situación?
   5c. (Si 'cambiado' a 5b): ¿Cómo?

6. ¿Cuáles eran las amenazas principales a la flora y fauna antes del proyecto/programa de COSUDE? (ejs: caza o destrucción ilegal, uso no sostenible, contaminación, falta de preferencia en un mercado, etc)
   6a. (para cada amenaza listada): ¿Qué tan grande fue el área afectada por esta amenaza? (toda/la mayor parte/algunas partes/un poco)?
   6b. (para cada amenaza listada): ¿Qué tan seria era esta amenaza en términos del impacto sobre la biodiversidad? (alta/mediana/baja)
   6c. (para cada amenaza listada): ¿Se ha reducido esta amenaza al final del proyecto/programa? (En términos de área y de impacto)
   6d. (para cada amenaza listada): ¿Hasta qué punto la reducción de amenazas fue resultado de las actividades del proyecto/programa? (todas/la mayoría/algunas /pocas). ¿Hubo otros proyectos en esa misma área con propósitos similares?
   6e. (para cada amenaza listada): ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?
   6f. (para cada amenaza listada): ¿Qué otros cambios han sucedido desde el final del proyecto con respecto a esta amenaza, en términos de área y de impacto? (Ejs., Proyectos nuevos, aumento de la destrucción, cambios de políticas, etc)

7. (Si sí a 1): ¿Qué lecciones aprendieron, tanto positivas como negativas, con el proyecto y que han ayudado a la conservación de la biodiversidad en esta área?
   7a. (Si se lista lecciones en 6): ¿Han sido aplicadas estas lecciones?
   7b. (Si se lista lecciones en 6): ¿Dónde han sido aplicadas estas lecciones? ¿Pueden verse?

COMUNIDAD LOCAL

1. ¿Por cuánto tiempo ha vivido en esta área?

2. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?

3. ¿Estuvo Ud. involucrado (a) de alguna manera en el proyecto? ¿Puede haber sido, por ejemplo, a través de colaboración en la preparación del proyecto o su implementación? ¿Percibió Ud algún beneficio del proyecto?

4. ¿En comparación al pasado (muchos años atrás ¿cuántos?), hay más vegetación y animales en el área, o menos?
   4a) En los últimos anos, hubo algunos cambios en el hábitat natural?
   4b) (Si algun cambio listado en 4 o 4a): ¿Qué causó estos cambios?

5. En comparación con los últimos años (los más recientes ¿cuántos?), ¿ve más o menos animales en el área? ¿Qué especies son más frecuentes ahora que hace unos años? ¿Qué especies son ahora menos frecuentes?
   5a. ¿En los últimos años (los más recientes ¿Cuántos?) hubo algunos cambios en la cantidad de animales? La cantidad de animales silvestres ha aumentado o disminuido en los últimos años?
   5b (si sí a 5a): ¿Qué causó estos cambios?
   Nota: fotos de animales y pájaros podrían servir para acumular más información específica.

6. ¿Diez años atrás, qué tipos de actividades estaban destruyendo el bosque, o matando a los animales?
   6a. (Para cada actividad listada): ¿Esto sucedía en una gran área o en un área pequeña? ¿De qué tamaño?
   6b. (para cada actividad listada): ¿Esta actividad causó mucha destrucción al bosque o fauna, o solo un poco?
   6c. (para cada actividad listada): ¿En los 10 últimos años, esta actividad ha disminuido o aumentado, en cuánto? (mucho/poco)
   6d. (Si hay un cambio listado en 7c): ¿Por qué ha disminuido/aumentado?
   6e. (para cada actividad listada): ¿En los últimos 2-3 años, hubo algún cambio en esta actividad? (aumentado/igual/disminuido)
   6f. (si hay un cambio listado en 7e): ¿Por qué ha disminuido/aumentado?
   6g. (para cada actividad listada): ¿Quiénes realizan estas actividades…forasteros o gente de la misma comunidad o comunidades cercanas?

7. ¿Qué sería lo mejor que podría hacer el gobierno ahora para ayudarle a Ud. y a su familia?

8. ¿Cómo se beneficia Ud del uso de la flora y fauna nativa? ¿Le gustaría hacerlo más? ¿Qué se lo impide? ¿Por qué no lo hace?

9. ¿Cuáles son sus actividades principales? (p.ej., trabajo con semillas, trabajo en el bosque, agricultura, silvicultura, agro-silvicultura)?

9a. (Para cada actividad listada): ¿Cuánto tiempo pasa Ud. o su familia en esta actividad?
9b. (para cada actividad listada): ¿Vende los productos, o los usa Ud. mismo (auto-consumo)?
9c. (para cada actividad que genera ingresos): ¿Cuánto gana de esta actividad durante el año? ¿Es su ingreso más importante?
9d. Si compara antes y después del proyecto, ha cambiado el tiempo que dedica a sus diferentes actividades? En cuáles pasa más y en cuáles pasa menos tiempo?
9e. ¿Hay actividades que empezó sólo después del comienzo del proyecto/programa? ¿Cuáles?
9f. (Si sí a 4e): ¿Por que empezó estas actividades y quién se las enseñó/mostró/presentó?
9g. ¿Hay algunas actividades que dejó de hacer desde que empezó el proyecto/programa? ¿Cuáles?
9h. (si sí a 4g): ¿Por qué dejó de hacerlas?
9i. ¿Es propietario (a) de algún terreno en esta área?
9j. ¿Impulsó el proyecto algún otro cambio en su vida?
9k. Para los que ganan más a causa de actividades del proyecto, ¿para qué usa este dinero adicional?

Annex 4

Estado actual de Ecoregiones, Ecosistemas y Cuencas de Drenaje									
Medio Afectado				**Acciones causales y Estado**					
Ecoregión	Nº de Ecoregiones	Cuenca	Cobertura	Sobrepartoreo	Erosión hídrica	Erosión eólica	Alcalinización y salinización	Contaminación minera	Asentamientos humanos
Puna altoandina occidental	9	Lacustre y salares	0 – 50	Moderado	Ligera a moderada	Ligera a moderada	Moderadaa severa	---	Bajo
Puna altiplánica	15	Lacustre y Salares	0 – 50	Moderado a severo a nivel local	Ligera	Ligera a moderada Severa a nivel local	Moderada a severa	Ligera a alta a nivel local	Moderado a alto a nivel local
Puna altoandina oriental	14	Beni Mamoré Lacustre Chaco Pilcomayo Salares	0 – 75	Moderado severo a nivel local	Ligera	Ligera a moderada	---	Ligera a moderada a nivel local	Moderado
Valles y montañas interandinas	19	Mamoré Pilcomayo Chaco	25 – 100	Moderado a severo a nivel local	Moderada a severa a nivel local	Ligera a moderada	Ligera a moderada localmente	Ligera a moderada a nivel local	Moderado a alto a nivel local
Chaco andino	11	Mamoré Chaco Pilcomayo	25 – 100	Severo	Moderada a severa a nivel local	Ligera a moderada	Ligera a moderada localmente	Ligera a moderada a nivel local	Moderado a alto a nivel local
Yungas del norte	11	Beni Mamoré	25 – 100	Ligero	Moderada a severa a nivel local	Ligera	---	Ligera a nivel local	Moderad a alto a nivel local
Yungas del subandino sur	8	Mamoré Chaco Pilcomayo Bermejo	25 – 100	Ligero a moderado	Ligera	---	---	---	Bajo

Estado actual de Ecoregiones, Ecosistemas y Cuencas de Drenaje									
Medio Afectado				**Acciones causales y Estado**					
Subandino y pie de monte norte	7	Beni Mamoré Iténez Acre Madeira Abuná	50 – 100	Ligero	Ligera a moderada a nivel local	---	---	Ligera a moderada a nivel local	Bajo a moderado a nivel local
Ondulaciones colinosas del norte	21	Iténez Alto Paraguá	50 – 100	Moderado	Ligera a moderada	---	---	---	---
Llanuras Aluviales Guarayo Moxeña	22	Beni Mamoré Iténez	50 – 100	Moderado a severo a nivel local	Ligera a moderada a nivel local	Ligera a moderada	---	Ligera a moderada a nivel local	Bajo a moderado a nivel local
Chaco Aluvional	21	Chaco Pilcomayo	25 – 100	Moderado a severo a nivel local	Ligera a moderada a nivel local	Ligera a fuerte a nivel local	Moderada a severa a nivel local	---	Bajo
Cerrado Serranías Chiquitanas	10	Iténez Alto Paraguá	50 – 100	Moderado	Ligera a moderada	---	---	---	Bajo
Penillanura Chiquitana	25	Iténez Alto Paraguá	50 – 100	Moderado a severo a nivel local	Ligera a moderada a nivel local	Ligera a moderada	---	Ligera a nivel local	Bajo amoderado a nivel local
Pantanal	6	Alto Paraguá	50 – 100	Moderado	---	---	---	---	---

Annex 5

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Ecuador

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List of Acronyms

CAN	Comunidad Andina de Naciones
CBD	Convention on Biodiversity
CHF	Swiss Francs
DAC	Development Assistance Committee
INEFAN	Instituto Ecuatoriano Forestal y de Áreas Naturales
MAE	Ministerio del Ambiente, Ministry of the Environment of Ecuador
NTFP	Non-timber forest products (such as honey, firewood and medicinal plants)
SDC	Swiss Development Cooperation
UN	United Nations
USD	United States Dollars

1 Introduction

In Ecuador the Evaluation Mission reviewed two regional programmes: FOSEFOR and PROBONA/ECOBONA. These programmes have also been active in Bolivia and Peru, and specifics in these countries will be reviewed in separate Case Studies. This Study will limit itself to activities in Ecuador with a few highlights pertaining to its regionality.

The coordination offices for PROBONA/ECOBONA and FOSEFOR have been in Quito and, from a portfolio perspective, including Ecuador in the Case Studies, allowed the Mission to interview regional coordinators, country coordinators, and some local participants. Because of time and budgetary constraints, and the phasing out of SDC's involvement in this country, the Mission focused on regional and national level participants, complemented this through interviews with two representatives from intermediate Ecuador governments and did not go to the field and talk to direct beneficiaries. The analysis in this case study is therefore more geared towards the national and, to some extent, the regional perspective.

In both projects, FOSEFOR and PROBONA/ECOBONA, the main goal was to reduce poverty of the human population living in Andean ecosystems through the use of forests and forest-linked resource. In all cases INTERCOOPERATION was the link between SDC and the project director. Table 1 shows in abbreviated form some of the main biodiversity (BD) - related attributes of the two regional initiatives, to be presented in more detail in the following pages:

TABLE 1

Name of Programme	Years	Main BD issue	Budget CHF
FOSEFOR	1994-2006	Production of quality native seeds	5,381,500
PROBONA/ ECOBONA	1992-2011	Protection and sustainable uses of Andean forests	25,778,285

Initially, FOSEFOR worked with foreign, fast-growing species, but changed after a survey showed that working with native seeds was possible. FOSEFOR thus changed to produce quality seeds of native tree species for local markets. The project wanted to identify stands with "plus" trees of Andean species, increase knowledge about their phenologies, germination conditions and nursery technologies, and create demand for those seedlings. The project opened bids and worked with local firms already in the seed studying and producing business. The municipality of Quito and the firm ARCO IRIS were main partners in the implementation of FOSEFOR. The project also aimed at strengthening local and national governments as needed.

Between 1995 and 1999 SDC funded a preceding seeds project (RASEFOR) covering the three countries plus Colombia and Chile. FOSEFOR itself had two phases 2000 to 2003 and 2004 to 2006. The total budget for FOSEFOR was 5,381,500 CHF[1].

The PROBONA/ECOBONA Programme started as a PROBONA project in Ecuador and Bolivia (1992-2005) and now, in its terminal phase (2006- 2011), is called ECOBONA and includes Bolivia, Ecuador and Peru. The total budget for the whole Programme is 25,778,285 CHF. The emphases in the two phases are somewhat different. In PROBONA the target was Andean forests whereas in ECOBONA the emphasis has been expanded to Andean ecosystems. In both cases the focus is on ecosystems above 800 meters above sea level. Because of rainfall (between 600 mm per year to 2000 mm per year), slope, exposure and

[1] Inception Report presented by Baastel to SDC (December 2008)

altitude Andean forests vary widely in physiognomy and other biological attributes, even within Ecuador.

According to project documents and corroborated by ECOBONA staff, in Ecuador, Peru and Bolivia Andean forests and Andean forest ecosystems are threatened by land clearing for agriculture and pastures, fires, livestock grazing, and collection of timber and firewood. Human-induced pressure on these forests is very high and natural conditions for regeneration and growth most challenging. Soil erosion potential is also high and potential income coming from annual increments in biomass is very small.

The aims of PROBONA were to initially research about Andean forests and then propose and test models for their protection and sustainable uses. According to project documents and former PROBONA staff, the concept of “Canje Ecológico” was central for PROBONA. Under Canje Ecológico communities received technologies and financial inputs eventually allowing them the sustainable use of forest resources, and to improve the income-generating power of activities outside the forests, such as more productive farming and honey production. The expectation was that farmers benefiting from Canje Ecológico would reduce their old non-sustainable or relatively unproductive practices threatening Andean ecosystems.

Until the project started there was little recognition of the reduction of the threats to Andean ecosystems. Most of the attention was devoted to tropical lowland forests. The projects aimed at increasing the profile of Andean forests and help direct the attention of governments towards them. The goal of PROBONA was not to eliminate those pressures, but to provide capacities and demonstrations that would attract governments and other donors into eventually eliminating pressure from the forests.

According to project reviews and project staff, under ECOBONA the emphasis on Canje Ecológico was reduced and the focus is now on Social Management of Andean Forest Ecosystems, institutional strengthening and farmers using sustainable practices. Again, the goal is to provide conditions that may eventually lead to their conservation and sustainable uses.

The PROBONA/ECOBONA Programme started working with universities and farmers, and now the focus is with farmers, and municipal and regional governments. Central Ecuatoriana de Servicios Agrícolas (CESA), ECOLEX (Corporación de Gestión y Derecho Ambiental), Comité Ecuatoriano para la Defensa de la naturaleza y el Medio Ambiente (CEDENMA), and ECOCIENCIA (Fundación Ecuatoriana de Estudios Ecológicos), CAMAREN (Consorcio de Capacitación en Manejo de Recursos Naturales) and Programa de Biocomercio of CORPEI (Corporación de Promoción de Exportaciones) have been key partners in the implementation of the Programme.

In Ecuador ECOBONA worked in two provinces: Loja and Napo differing widely in ecological conditions. According to government representatives, Loja has an annual rainfall of about 900mm/year and Napo more than 2000mm/year and sometimes more than 3000mm/year). Loja has frequent droughts and dry woodlands compared to Napo, which has excess rainfall, lush forests and is even perceived as an eventual water supplier for Quito. Within each province the project worked with several cantons. The Missions did not have a chance to visit these cantons and only to talk while in Quito with government representatives of Loja and Napo.

Methodology

This review is not a summary of opinions and project documents, but a biodiversity-focused integration and analysis of information contained in general SDC papers and documents pertaining to the two projects, on the one hand, and what was learned during the field visit to Ecuador, on the other. The Mission made an effort to be critical in the use of existing information and materials obtained from structured and semi-structured interviews to assess the key questions asked by SDC in its document: "**SDC´s Contributions towards Biodiversity: Impact in the Andean Region"**. In particular, the review emphasized the role of the Swiss cooperation and the two projects in helping implement the Convention on Biological Diversity (CBD). This report is focused only on relevant information to respond to the SDC inquiry.

Work started with a review of all documents submitted by SDC (Please see the section on References Used in this Review) and a subsequent mission by Eduardo Fuentes to Quito (26-29 January 2009). The schedule for the Mission was kindly prepared by SDC (Ecuador). The detailed schedule is presented in Annex 1 to this report.Interviews were conducted using a predetermined questionnaire (Please see Annex 2). Interviews lasted for about 30´each and focused only on where interviewees could contribute most. The various issues in the questionnaire were raised only as appropriate.

In the following sections, this Case Study will assess the DAC criteria and how they apply to the two projects in Ecuador, and conclude with some preliminary recommendations.

2 Relevance

Relevance determines if projects and programmes were in line with: the needs of beneficiaries, existing legal and regulatory frameworks, and the main environment/BD concerns in the country covered by the evaluation. In the following sections, relevance will be examined for these three dimensions in this same order. Table 2 provides an initial overview of the two projects and their types of relevance.

TABLE 2

PROJECT/CRITERION	FOSEFOR	PROBONA/ECOBONA
1. Relevance for the Needs of Beneficiaries	Poverty alleviation through the improved sustainable uses of existing quality seed-producing trees	Poverty alleviation through increased incomes from activities in and outside Andean forests. Canje Ecológico
2.Relevance to existing Regulatory Frameworks	Constitution of Ecuador, UN Convention on Biological Diversity, Andean Convention on Biological Diversity and Agenda Ambiental Andina	Constitution of Ecuador, UN Convention on Biological Diversity, Andean Convention on Biological Diversity and Agenda Ambiental Andina

3. Relevance to Environment/ Biodiversity: The CBD	Capacity building at the individual and institutional level, transfer of technologies, technical assistance between developed and developing country Parties to the CBD In principle supported conservation, sustainable uses, and equitable sharing of benefits emerging from the sustainable uses of biological diversity	Capacity building at all three levels: people, institutions, and systems. Education and awareness building, technical assistance between developed and developing country Parties to the CBD. It may support conservation sustainable uses and equitable sharing of benefits emerging from the sustainable uses of biological diversity

2.1 To Beneficiaries

The main objective of these two programmes was poverty alleviation in the highlands using BD components. Access to biodiversity was not the issue and the projects were not expected to change it. Rather the issue was how to alleviate poverty using readily accessible components of biodiversity. Uses of biodiversity were expected to be sustainable.

FOSEFOR and PROBONA/ECOBONA worked in some of the poorest areas of Ecuador where people desperately need to improve their incomes. From this perspective the programmes are very relevant to beneficiaries. In the case of FOSEFOR the project was also supposed to support beneficiaries (clients) needing high quality seeds for plantations of native trees. Before the project started, demands from beneficiaries for quality native seeds were unknown and probably low, there were no large private or public plantation schemes using native species, and people having native trees with valuable seeds never expressed that producing native seeds may help alleviate their poverty. In general, the project wanted to improve the market position of native, as opposed to fast growing foreign seed species. Interviewees indicated that later it became clear that such demand did not exist and the project was not able to raise it.

PROBONA/ECOBONA attempted to show how to reduce human pressure on Andean Forests and Ecosystems and how to improve sustainable forest use practices. The project aimed at providing alternative incomes from activities around the forest such as honey production, improved agriculture and raising livestock under controlled conditions, and inside the forest, with activities such as the sustainable extraction of non-timber forest products (NTFPs) for handicrafts and of medicinal plants for local markets. The project also improved direct markets access to farmers and is thus consistent with improved forest management and poverty alleviation.

The relevance of the two projects regarding demands of the beneficiaries is very dissimilar. Both projects aim at the reduction of rural poverty by increasing incomes through the use of BIODIVERSITY components, but in the case of FOSEFOR the project assumed a need for high quality seeds to help poor farmers improve their situation. In PROBONA/ECOBONA the project worked with marketable NTFPs, timber and commodities produced out side the forests.

2.2 To Policy Frameworks and Institutions

At the international level, FOSEFOR and PROBONA/ECOBONA are consistent with the UN Millennium Goals, especially hunger relief, gender equity, environmental sustainability and global partnership. Both initiatives, FOSEFOR and PROBONA/ECOBONA also respond to the commitments of Ecuador and Switzerland to the Convention on Biological Diversity (CBD). The CBD was ratified and is law in both countries[2]. The projects/programmes are also consistent with two important regional policy agreements: the Regional Biodiversity Strategy of Tropical Andean Countries (2008) and the Agenda Ambiental Andina (2006-2010).

The two projects also fall within important policies of Ecuador. FOSEFOR and PROBONA/ECOBONA are consistent with the recently approved Constitution of Ecuador (2008), giving rights to nature and simultaneously promoting the right of Ecuadorians to food, shelter, education, health, and in general an improved wellbeing. The projects, however, are not part of any existing government programme.
The relevance of FOSEFOR was affected by changes in forestry in Andean countries. In the 1980´s and 90´s there were massive forestation programmes funded by governments. Since then, governments decided to only establish the forestry regulatory norms and let private sector agencies do the planting. Consequently, demand for and use of native seeds has decreased significantly and most planting is done using fast growing, exotic species[3].

The Plan de Acción Forestal, funded by the Dutch Government, had already identified Andean forests as a priority in the 1980´s and FOSEFOR and PROBONA/ECOBONA continued highlighting their importance for Ecuador and other participating countries. As mentioned, before the SDC projects interest was mostly in Amazonian forests. Andean Ecosystems are now, partly due to SDC initiatives, under the fragile ecosystems category in the recently approved Constitution of Ecuador and the National Biodiversity and Action Plan, and are thus a priority for Ecuador.

According to a government official, originally, FOSEFOR responded to a specific request from INEFAN (Instituto Ecuatoriano Forestal y de Areas Naturales), although there were no specific policies or programmes supporting plantations with native seeds. Later, it became apparent that actually protecting the water supply through the maintenance of the forest cover and forestation of watersheds is of great interest to farmers and urban dwellers.

PROBONA/ECOBONA is broadly consistent with policies and goals of the Ministry of the Environment of Ecuador (MAE). Government staff expressed to be very interested in the implementation of ECOBONA and to actively participate in its implementation, including the selection of target sites in the districts of Napo and Loja.

2.3 To the Environment

Both initiatives are in principle consistent with the three main objectives of the CBD: Conservation, sustainable uses of biodiversity components, and equitable sharing of benefits emerging from uses of genetic resources (now meant to be biodiversity resources). FOSEFOR intended to conserve areas with selected seed-producing trees and PROBONA/ECOBONA has the protection of Andean forests as a main target. Similarly, with sustainable uses, in both cases, uses of biodiversity components are meant to be sustainable and provide farmers with permanent resource bases. The projects are also

[2] In Ecuador the CBD became law on 23 February 1993 and in Switzerland about a year and a half later (21 November 1994)
[3] Gustavo Galindo during the interview

consistent with the goal of equitable sharing of benefits by helping farmers reach markets directly, avoiding intermediaries, and helping improve land productivity.

The two initiatives also support other important CBD criteria, such as capacity building (at the individual, organisations/governments and systemic (laws, national and regional regulations) levels. The programmes also support transfer of technologies, education and increasing awareness, all of them important criteria for the implementation of the CBD. Finally, FOSEFOR and PROBONA/ECOBONA are consistent with the CBD goal of developed country Parties, such as Switzerland helping implement the CBD in developing country Parties, such as Ecuador, by supporting the transfer of technologies and financial resources[4].

2.4 To Emerging SDC Priorities

The programmes in principle contribute to sequester carbon through forestation and to avoid emissions through helping maintain forest cover. By expanding the range and efficiency-use of resources, the two projects may also help adapt rural populations to some of the consequences of climate change and to increase their overall food security concerns.

In conclusion, the two programmes are relevant to important goals of Ecuador and are consistent with its most significant policies, but they are no part of any mainstream government programme. Rather, the programmes are innovative and attempt to bring to the main focus of attention linkages between poverty alleviation and sustainable natural resources uses.

3 Impacts

Impacts refer to longer term, overall effects of these programmes on beneficiaries, policies and institutions at the local, municipalities/regional governments, and national government levels. In the two cases under review, possible impacts on the environment/biodiversity are also of high significance.

Impacts can be positive and negative and can be desired or unexpected. In general, impacts refer to changes when before and after project situations are compared. These changes go beyond mere project outputs, such as having meetings and reaching agreements, publishing and officially approving documents, or preparing teaching manuals, and taking courses and trainings, they also go beyond project outcomes. Impacts rather refer to the more permanent behavioral changes that may occur in people, institutions, or the environment as a consequence of the implementation of usually several outputs and the achievement of project/programme outcomes.

[4] CBD Articles 5-18: Please see http://www.cbd.int/convention/convention.shtml

Table 3 shows an initial overview of some of the main *impacts* of the two projects/programmes:

Table 3

Project/ Target	FOSEFOR	PROBONA/ECOBONA
Local beneficiaries	Marginal benefits to local beneficiaries because demand for native seeds is small and sporadic. Farmers were trained in seed collection.	A few farmers at least are receiving substantial assistance to increase their use of forest resources and to increase their incomes from activities outside the forests: Canje Ecológico.
Policies and institutions	Only one norm promoted and approved: Norma Nacional de Semillas. Nurseries were trained.	Municipalities/local governments trained, several land-use and forest-use plans approved. National norms for the use of Andean forests approved.
Environment/biodiversity	Impacts unknown. There were no baselines and no biodiversity monitoring programmes. Impacts doubtful.	There are many potential impacts, but there are several important reasons why impacts will not be able to be measured during the project.

3.1 Impacts on Local Beneficiaries or Local Area

The two SDC initiatives have as a major objective improving the wellbeing of farmers in rural areas, especially the highlands. Showing improvements in their livelihoods based on sustainable uses of biodiversity components would be of major significance. Programme staff mentioned that ECOBONA generated in 2007 a fairly detailed baseline, including on socio-economic issues, and expects to measure the same parameters again in 2009. From emerging differences they expect to assess impacts of the project on the wellbeing of people. FOSEFOR never made a comparable effort.

Without systematic studies showing systematic changes in the socio-conditions of farmers, the Mission could access only scattered and indications of improvements in their livelihoods. Furthermore, being focused on national level interviews (see methodology section above); it did not have the benefit of interviewing end-beneficiaries to provide its own assessment in this country.

SDC projects did not attempt to increase access to biodiversity but to generate activities that would allow farmers to increase their incomes from it, and hopefully protect it from non-sustainable uses. These latter goals they may have achieved in various degrees.

FOSEFOR was affected by the low demand of native seeds, linked as we saw to the absence of massive forestation programmes. According to informants, demand for native

seeds has been low and sporadic and income to farmers seems to have been low and unpredictable. Improvements, if any have been marginal. Informants mentioned that the main income to seed producers, before and after FOSEFOR, is not coming from the seeds but from agriculture and livestock.

Interviewees mentioned that some of the intermediaries, such as “Arco Iris” and municipalities, produced seeds before the project and still work with exotic and native seeds. As mentioned, the programme worked in Loja and Napo. Informants mentioned that up to now these two governments have established about 13 nurseries, some established after the project ended and include native species. The Mission could not get information on how much these nurseries profit from selling native seeds. Several key informants from Quito and the two provinces, mentioned, however, that production of exotic seeds outweighs and is more profitable than multiplying native species.

Local benefits in the case of PROBONA have been substantially different and have been at the very centre of its activities. The project supported alternative livelihoods with the aim of decreasing poverty and reducing pressure on forests in 41 communities. About 1930 people benefited from them (47% women). PROBONA had activities aimed at intensifying uses outside the forests to meet income needs of people and thus relieve them from having to use forest resources in non-sustainable forms (Canje Ecológico)[5].

As part of Canje Ecológico, PROBONA/ECOBONA supported local producers in the generation of viable enterprises in several ambits. Informants in Quito indicated that all of them produce sellable commodities and the project has helped them reach markets without having intermediaries, thus increasing net benefits to farmers, although those were not quantified in the reporting and during project implementation. The enterprises most mentioned by interviewees include fish-farming, apiculture in the forest borders, planting shade cocoa (mostly of the high quality Ecuadorian variety called “Sabor Arriba”) and shade coffee. This cocoa and coffee have markets outside the country and provide the best incomes. The interests of foreign consumers (beneficiaries) are protected by international certification schemes: both for coffee and cocoa are certified by Rainforest Alliance and are now seeking additional certification as “Bird Friendly”.

A former PROBONA staff in Quito mentioned as an additional activity, also outside the forest and also intending to intensify production, the improved livestock production in stables. Livestock has been a threat to forest margins because it enters the forests, eats tree seedlings, and prevents forest regeneration. In addition farmers used to clear or burn forests to increase fodder. According to a Napo representative, before the SDC-supported intervention, carrying capacity was only about 1.5 ha per head in Napo. Now farmers produce fodder outside the forests, livestock is maintained in stables; livestock productivity is higher and there is no need for it to enter into the forests anymore.

Honey production in the forest margins has been another source of benefits for local farmers. The Mission was explained by a former PROBONA staff that farmers build a virtual “fence” with their honey combs around the forest margin, preventing others to intrude and cut the forest, while having substantial increases in their incomes. In a way honey-producers may become forest custodians.

Systematic effects of these measures on the daily life of farmers are still being investigated. The programme recently created baseline including information about the socio-economic situation of beneficiaries and the 2009 census will be useful in assessing these changes. It is

[5] Phillipe de Rham (2006). Nota de Síntesis de Fin de Fase. PROBONA. Chris van Dam Enero 2009 Sistematización de aprendizajes de los programas PROBONA / ECOBONA y FOSEFOR. Informe de Consultoría

very likely, that especially activities to increase productivity outside the forests and avoiding intermediaries will prove to increase incomes.

In the absence of these systematic studies, evidences of effects of project activities are still largely spotty. People mentioned increases of ca. 12% in incomes from cocoa and of 20-30% from coffee. One informer mentioned that they do not know if people's lives changed, but the fact that they seem to approve the project, suggests they must be gaining something from it. Most interviewees in Quito claimed that farmers have now better food and can provide more education to their children.

Regarding gender issues, the Mission learned from informants from Quito and Loja/Napo about claims that better practices in production of cocoa, coffee and post harvest management have now the whole family involved in production, whereas before the project, women looked for work elsewhere. From this perspective, the project may have increased incomes and helped maintain families.

The Mission was explained by interviewees that the project has not attempted to quantify how effective the Canje Ecológico has been so far. It is not known to what extent people have reduced forest uses or made them more sustainable *because* of the alternative livelihoods provided outside the forests. Project documents and interviewees confirmed that PROBONA did not generate a baseline that would allow eventual measurements of its impacts. The ECOBONA project created a baseline of forest cover in 2007 and the expected 2009 census may show differences in cover between the two samples, but ECOBONA is not considering any other measures of changes in forest or non-forest biodiversity during this time. Although forest cover can be a proxy for biodiversity in some cases, in a situation in which people and livestock enter and use the forests, cover alone is insufficient.

In addition to supporting activities outside the forests, PROBONA helped farmers with activities inside the forests. Some of these activities existed before the project; others have been established during project execution. In all cases, however, the project would have attempted to make them more sustainable. For example, PROBONA introduced sustainable uses of medicinal plants, sustainable firewood collection, and more recently, ECOBONA is working with ecotourism and sustainable harvest of non timber forest products (NTFPs) to be used in making handicrafts.

The Mission was explained by interviewees that collection of firewood was made more sustainable by limiting it to dead wood or already fallen trees. For the rest of the activities there was no real explanation of sustainability beyond mentioning that there was a plan.

Both in the cases of FOSEFOR and PROBONA/ECOBONA projects increased individual capacities to manage resources. In one case it was seeds and production of seedlings, whereas in the other capacities were built to increase presumably sustainable productivity in and outside the forests. The Mission did not have direct access to farmers, but other informants mentioned these efforts.

3.2 Impacts on Institutions, Policies and Political Frameworks

The two projects had different effects on regulatory frameworks. Project documents and interviewees confirmed that FOSEFOR produced only one piece of regulation, the Norma Nacional de Semillas, describing standards for commercial seeds in the country. The rest of the activities were mostly focused on farmers and nurseries. Although the Norma is available, the Mission did not find documentation that actual practices had changed after its approval.

In the case of PROBONA/ECOBONA there has been an evolution regarding the need to strengthen institutions and change regulatory frameworks. Perhaps the largest difference between the PROBONA and ECOBONA is that the ECOBONA phase reduces its emphasis on Canje Ecológico, in exchange for an increased effort to institutionalize the project goals within local governments. According to project documents and staff, ECOBONA has as an explicit goal to strengthen institutions to help them sustain activities after SDC support ends. Consequently, at this stage there are already several initiatives at municipalities/local government levels and national levels where the imprint of PROBONA/ECOBONA is visible.

The Mission learned from several interviewees that ECOBONA helped build capacities in Napo and Loja for improved local government leadership, democratic environmental management, and helped with legal frameworks concerning environmental competencies in these two municipalities and relevant members of the civil society, police and armed forces.

Other informants mentioned that the project helped strengthen community institutions by introducing know-how on relations between farmers, Andean forests and various levels of governments. PROBONA and ECOBONA helped generate land use plans and management plans for seven areas in Loja and Napo and helped generate the “Plan Desarrollo de Napo” with land use planning, vegetation mapping, and strengthening of environmental management.

According to two major project assessments[6], PROBONA and ECOBONA also helped prepare a draft Ordenanza Municipal for Loja and Napo (not approved yet) on environmental quality and uses of forest resources. In Loja it also helped produce the Plan Ecológico Ambiental. Besides introducing forest and land use planning in Napo and Loja, the project helped strengthen the Comité de Desarrollo Provincial to implement them.

According to ECOBONA-related people, the project strengthened communities to manage natural resources and to generate new (follow-up) projects. The project also supported the creation of community norms for the use of Andean Forests. Interestingly, communities and governments learned that they had to be able to access directly competitive funding and asked the project for training on project preparation.

The only evidence found by the Mission that Loja and Napo really increased their competencies during the project is that their budgets seem to have increased disproportionately in comparison to similar governments in surrounding areas. According to Loja and Napo representatives, this increase reflects greater confidence on their competency to use moneys in a more appropriate manner.

At a national level, the ECOBONA introduced common terminology for vegetation types within Andean forests in Ecuador and had impacts in terms of policies and positioning of Andean forests in the national and local agendas. PROBONA had already participated in generating Ecuador’s national policies on Andean forests, and INEFAN worked with PROBONA in generating a policy for Bosques Protectores (protecting watersheds and producing goods). PROBONA had also produced a systematization of Forestry Laws in Ecuador and generated “Norma para Aprovechamiento Forestal (2005).

ECOBONA, according to its national and regional directors, also generated “Política para Uso de Ecosistemas Altoandinos” (2008), that became a model for Peru and Bolivia. The Mission also learned that people originally involved in PROBONA/ECOBONA participated directly or indirectly in generating the new Constitution of Ecuador in which Andean Forests are included as fragile ecosystems, needing attention.

[6] Phillipe de Rham (2006). Nota de Síntesis de Fin de Fase. PROBONA. Chris van Dam Enero 2009 Sistematización de aprendizajes de los programas PROBONA / ECOBONA y FOSEFOR. Informe de Consultoría

The change of emphasis between FOSEFOR and within PROBONA/ECOBONA towards strengthening policy frameworks is very apparent[7]. PROBONA/FOSEFOR has made and continues making significant efforts to train individuals, strengthen institutions, and generate regulatory frameworks.

Are these efforts impacts or outputs and outcomes? As a cautionary remark it is important to realize that all these efforts in institutional strengthening and all these policies and plans are necessary outputs or outcomes that will not necessarily reflect in better management of natural resources. All too frequently plans and trainings do not reflect in improved biodiversity resource management because of conflicting interests, lack of funding, political considerations, corruption, etc. Moreover, it is not uncommon that projects change the discourse of beneficiaries, especially in front of evaluators or people they think may be linked to follow-up resources. Impacts should be measured directly through appropriate before-after indicators. If institutions have been impacted there should be indicators showing that after the project they do different things or they do the same thing differently, hopefully better. Similarly, if people have been impacted after the project they should be proven to act differently. The Mission's review of the reports and interviews in Quito did not reveal any objectively verifiable changes in the way institutions deliver or individuals behave with respect to biodiversity management.

3.3 Impacts on the Environment

There are several reasons why attempting to measure impacts on the environment and especially biodiversity in these two projects present major challenges.

- Firstly, to measure impacts projects and programmes need baselines and regular monitoring programmes of relevant variables, which these two projects do not have. Impacts on the environment or biodiversity must be measured directly and cannot be assumed from activities related to conservation and sustainable uses. As mentioned, management plans, training, norms, regulatory frameworks, etc., do not necessarily reflect in better environmental or biodiversity management.

- Secondly, measuring changes in biodiversity can be very laborious, requiring the participation of many specialists. The current baseline and monitoring programme of ECOBONA attempts to avoid this problem by using a proxy for biodiversity, namely forest cover. However, forest cover is only a very rough measure of biodiversity. For example, people could have severely depleted forests of medicinal plant species, mammals, birds and many valuable species, without changing forest cover. This is the so-called "empty forest syndrome".

  In addition, measures of only forest cover do not address the crucial issue of forest regeneration. Seedlings of forest species are sensitive to trampling and livestock grazing. Forest cover may not have changed in the period between measurements, but negative impacts on forest regeneration due to overgrazing may be causing damages that would only become apparent in 10 or 20 years. Forest cover alone has strong limitations as an indicator for biological diversity, especially in Andean forests.

- Thirdly, the time span of both of these projects may not be long enough to detect changes in species distribution and abundance. Two to four years is insufficient time to detect changes in species. It may even be too short to find any changes in forest cover. If PROBONA and FOSEFOR with its longer spans had intended to assess such changes, they may have had measurable impacts, provided they had dealt with

[7] Chris van Dam Enero 2009 Sistematización de aprendizajes de los programas PROBONA / ECOBONA y FOSEFOR. Informe de Consultoría

all significant threats and a significant fraction of the threatening human population. Thus, even if measures promoted by the projects were effective, they probably not reflect on biodiversity changes.

- Fourthly, projects address only part of the threats to biodiversity in Andean ecosystems and target only a small fraction of the people that endanger them. As mentioned, main threats to Andean forest ecosystem are land clearing for agriculture and pastures, fires, livestock grazing, and collection of timber and firewood. ECOBONA and especially PROBONA provided a **few pilots** on how to improve agricultural production outside the forests, on how to increase livestock production in stables and other such potentially compensating measures for reduced impacts on forests. The projects did not systematically work with all necessary people to reduce their impact on the forests; they worked with just a few to demonstrate that some activities are feasible.

  In addition, the projects did not have any specific outcomes stopping fires from initiating or dispersing, or the sustainable management of timber operations. Moreover, they did not attempt to simultaneously reduce all threats in the same forest patch. Under these restrictive conditions it would be most unlikely that these projects would be able to show impacts on forest cover. There would be too much "leakage".

- Fifthly, if FOSEFOR was going to have an impact on conservation and sustainable uses, it should have attempted to assess and monitor the stands where the seed-producing trees are and where seeds were planted. Seed production *per se* is not enough to secure conservation and sustainable uses of native species, unless linked to efforts to ensure that forest cover with native species increases, and this was not part of FOSEFOR design.

- Sixthly, a basic tenet of the PROBONA/ECOBONA programme is that forest clearing and uses would decrease as people benefit from alternative livelihoods, the so-called Canje Ecológico. The Mission did not find any evidence of an explicit *quid pro quo,* an explicit commitment of people to change their activities *because* of the assistance they were receiving. It seems that implementers expected people to shift their activities as a spontaneous consequence of the new activities supported by the project and not as part of an explicit agreement. Experiences form other parts of the world[8] show that even with explicit agreements, the Canje Ecológico is frequently broken. It would therefore be surprising if in PROBONA/ECOBONA people would exhibit a spontaneous shift in their forest damaging activities. At any rate, Canje Ecológico should at best be viewed as a hypothesis to be tested in each case, rather than as a logical assumption.

Up to now evidences of PROBONA/ECOBONA impacts are conflicting. Two examples were mentioned as successes of Canje Ecológico, without measurements because according to informants "results are evident": Cerro Azul, and Yungilla. At Cerro Azul people would have stopped making charcoal out of forest resources in exchange for project assistance with activities outside the forest. But for Cerro Azul the Mission heard from another informant that it was a failure because it lost half of its forest during project implementation and project interventions had to be cancelled. For Yungilla no real supporting evidences of success could be mentioned. This is a real case showing that without proper indicators and

[8] See for example: R. Mc Callum and N. Sekhran ç (1996) Lessons learned through ICAD Experimentation in PNG: the Lack Experience. Presentation to the United Nations South Pacific Forestry Program. See also M Wells and K Brandon 1992. People and Parks: Linking protected area management with local communities, WB and WWF

monitoring, impacts become a matter of opinion and it is sometimes difficult to know what happened. In this particular case, there is a question if Cerro Azul and Yungilla should be considered successes or failures, and to what extent.

The Mission also heard claims that PROBONA and others helped reduce forest fires, but there are no statistics of changes in fire frequencies and areas burned. In 2006 at Yacurí about 40.000 ha were declared as a reserve and about 90.000 for multiple uses. The management plan for this site has been prepared but, so far, not implemented. The government of Napo province will eventually manage the area. According to local informants, Yacurí would provide water to two towns and eventually provide opportunities for ecotourism, prevent mining and squatter, and reduce livestock in the forest. How and when these management plans are implemented is critical to protect biodiversity in them. Andean forests are probably decreasing in size and delaying implementation of measures to secure sustainable uses, works against the goals of the CBD.

As we have seen in the relevance section of this Case Study, the two SDC projects in Ecuador support **in principle** the implementation of the CBD and its three equally complementary and important objectives: conservation of biodiversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. In principle because FOSEFOR and PROBONA/ECOBONA in Ecuador had the opportunity to have significant impacts on these three goals but unfortunately have not been able to materialize these impacts or are unable to prove it. In the case of FOSEFOR it had a potential to contribute to the conservation and sustainable uses of forests stands having plus trees with the desirable seeds. But conservation and sustainable uses of these stands did not materialize or cannot be proven?

In the case of PROBONA/ECOBONA the programme had a chance to conserve areas such as Yacurí, but so far management plans have not been implemented and therefore the programme is unable to show conservation impact. The programme also has an opportunity to show it is helping prevent deforestation and sustainable uses of NTFPs, but for reasons explained above, it is very unlikely that it will be able to show it.

Both FOSEFOR and PROBONA/ECOBONA may contribute marginally to the equitable sharing of benefits arising from the uses of biological diversity. In FOSEFOR farmers seem to obtain minimum incomes from selling native seeds, whereas in PROBONA/ECOBONA there are still unknown gains from the uses of NTFPs and ecotourism. Gains from Canje Ecológico are unknown and are not necessarily linked to the uses of native biodiversity. As mentioned, Canje Ecológico includes some native species (such as cocoa), but also exotic species (such as coffee and honey bees). Therefore gains coming from these sources do not necessarily contribute to equitable sharing of benefits emerging from the uses of native biodiversity, which is the CBD goal.

Like the case of forest management and land use plans, norms supported by the projects may or may not be linked to more controlled and hopefully more sustainable use of the forest. In practice this depends on political, financial and social pressures allowing it. It is a very risky to assume that the existence of these instruments will necessarily be reflected in better management.

Honey production using the common bee *Apis mellifera* is generally perceived as an innocuous livelihood helping increasing the incomes of people living in and around the forests. However, this highly efficient bee species is introduced and substitutes the pollination services usually performed by the native bee fauna. The extent to which the native bee fauna is altered by the introduction of the highly efficient colonial *Apis mellifera* should be proven, before claiming that a forest-degrading activity has been replaced or exchanged for the production of honey by a forest-friendly species.

In spite of the two SDC projects not being able to prove significant impacts on conservation, sustainable use of native biodiversity and equitable sharing of benefits arising from its uses, FOSEFOR and PROBONA/ECOBONA will be able to show support to other important CBD criteria, such as capacity building (at the individual, organisations /governments and systemic (laws, national and regional regulations) levels. The projects also support transfer of technologies, education and increasing awareness, all of them important criteria for the implementation of the CBD. Finally, FOSEFOR and PROBONA/ECOBONA are consistent with the CBD goal of having developed country Parties, such as Switzerland; help implement the CBD in developing country Parties, such as Ecuador, by supporting the transfer of technologies and financial resources.

The difficulties of the two SDC interventions showing impacts on biodiversity are also expressed in the problems they would have showing impacts on environmental variables, such as for example, soil fertility, and water quantity and quality. In this context, one of the potentially most important environmental impacts of the PROBONA/ECOBONA project refers to the desire of beneficiaries to maintain their downstream water supply. The Mission heard that people, after being educated by the project, now value Andean Forests as insurance for their water supply and that for this reason they would be willing to protect forests, especially in a scenario of climate change. If this claim proves true, the change in the attitude of people towards forests should be reflected in their future activities and in the value of indicators assessing land use changes.

The two projects could have impacts *vis* a *vis* climate change if ecological niches of species selected were within the expected the new climate conditions in the highlands, but this is unknown. However, by focusing on species that have proven commercial value the projects may be contributing to reduce food security concerns. As an example, the projects stimulated plantations using Tara (*Cesalpinea espinosa*), a dryland species with known and increasing commercial value. In 2007 ECOBONA planted Tara in degraded areas and provided know-how to increase germination rate from 20 to 95%.

In conclusion, SDC programmes were not designed and do not yet have the means to assess biodiversity-related impacts on beneficiaries, institutions, regulatory frameworks or the environment. Furthermore, the assessment of the evaluation team based on documentation review and interviews in Lima is that Programmes in Ecuador have outputs and outcomes, such as changes in regulations, land and forest use plans, trainings, farmers increasing their production outside the forests, but there is no evidence that these outputs and outcomes are linked to actual changes in the people and institutions behavior towards their environments or the biodiversity associated with Andean ecosystems. The Mission heard and read about outputs and anecdotes about presumable changes in all of these entities and those were reported on above, but there at present no are systematic efforts using indicators of change in the systems or attitudes of people towards biodiversity.

Lesson learned: Projects need to be designed with appropriate baselines, indicators and monitoring systems to detect changes in the biophysical environment as well as changes in the behaviour of institutions and people towards biodiversity.

4 Effectiveness

The most important goal of the SDC projects is poverty alleviation in rural areas of the Andes. What has been the role of biodiversity-related activities in the effectiveness of these projects? To the extent that FOSEFOR became restricted to native species, its effectiveness in reducing poverty was probably diminished. If they had focused on fast growing species, known to have higher demand, farmers would probably have received more benefits. From this perspective, restriction to native biodiversity probably hindered the effectiveness of FOSEFOR in the short term. If the reason for FOSEFOR had been uses of native biodiversity, rather than poverty alleviation, the conclusion would have been different.

The latter is the case of PROBONA/ECOBONA, where biodiversity and poverty alleviation are at the centre of the intervention. PROBONA/ECOBONA was born in an alliance between SDC and IUCN (International Union for the Conservation of Nature), both headquartered in Switzerland. The intention was to reduce poverty in and around Andean forests **and** protect these Andean forests by helping with their conservation and sustainable uses. Here effectiveness cannot be considered without biodiversity management. Effectiveness was in fact inextricably linked to the uses and conservation of biodiversity. Efforts in preserving biodiversity have been instrumental in reducing poverty in that particular programme context.

5 Sustainability

Sustainability refers to the permanence of project outcomes and impacts after funding from SDC ends. Project activities are not expected to continue, but the project has hopefully triggered processes that will continue after its financial contribution from SDC ends.

The two projects reviewed differ in their sustainability. Table 4 provides an initial overview of the main sustainability issues in the two initiatives.

Table 4

Project/Sustainability level or issue	**FOSEFOR**	**PROBONA/ECOBONA**
Local level: ecological, financial, social	Sustainability will depend on markets becoming more vigorous. Seeds are produced by people who are mainly farmers. Currently there is little interest in maintaining stands with trees producing quality seeds.	Farmers are using forest resources and increasing production outside the forests using marketable products and financial and social sustainability is likely. Environmental sustainability of some products is assured by international certifications. Overall sustainability of biodiversity components is unclear

Municipal/local government	Some municipalities have nurseries and may eventually promote native seeds	Municipal/local governments strengthened and their budgets increased, perhaps leading to longer term sustainability.
National level	No national programmes promoting forestation using native tree species.	National norms approved may lead to sustainability in the uses of Andean forests.

FOSEFOR was based on the assumption that forest stands of small farmers would be maintained because of the additional income they would gain from selling quality seeds. Critical for the sustainability of FOSEFOR was the vigor of markets for native seeds in Ecuador. From the interviews and project documents, it is apparent that it was the markets that were going to maintain the whole chain of production of quality seeds and their production areas, and farmers would continue protecting stands and trees to continue receiving income from periodical sales. In practice, however, sales and gains coming from quality native seeds proved to be marginal and sporadic. Currently, sources mentioned, planting in Ecuador is infrequently done with native species. A current Páramo programme would be now afforesting with at least 85% exotic species.

Fortunately, interviewees indicated FOSEFOR decided to work with existing centres and these are largely still active. They existed before the project and continue existing now although commercializing mostly fast growing exotic species. Quito municipality has such a seed bank, strengthened by the project and still active. The technology to collect and grow native seeds and seedlings is in their hands and hopefully will be available if demand for native seeds ever rises.

Ecuadorian informants indicated that INEFAN, the Ecuadorian institution triggering the project was absorbed by Ministry for the Environment and this ministry does not have an interest in plantation programmes.

The strategy of PROBONA and especially ECOBONA has been different from the one used by FOSEFOR. The emphasis of the PROBONA/ECOBONA programme is, especially now, on strengthening governments (local, municipal/provincial, national), with the expectation that strengthened institutions will maintain project-type activities. Rather than assuming that after project ends farmers and communities would maintain achievements (sustainable use techniques, management plans, compensations for reducing pressures on forests, etc.) ECOBONA decided to target not only farmers but governments immediately above them. According to ECOBONA managers it is with sustainability in mind that the project initially selected municipalities and local governments that had already expressed an interest in ecosystem management and proceeded to strengthen them. That is, these governments already shared the goals of SDC and therefore there is a higher chance that they would continue with the same goals after SDC funding ends. This approach is a remarkable departure from the FOSEFOR approach in which the project aimed at a so far non-existing demand for seeds.

A positive indication that the SDC decision is working is that the two strengthened local governments (Napo and Loja) have seen their improved capacities reflected in disproportionately higher budgets. Informants mentioned that for NAPO it increased from USD 30,000/year to 235,000K/year, and for Loja from 70,000/year to 600,000/year, plus additional funds they now obtain from international assistance they get from project they

prepare themselves. In addition, the original request of these local governments to be trained in project preparation is also proving successful.

Alternative livelihood activities supported by the project may also seem sustainable as they respond to proven market needs. As mentioned, shade coffee and cocoa, honey, fish, medicinal plants all of them have markets and respond to true markets that need not be established by the project. Reforestation under PROBONA/ECOBONA was done using a known productive species such as Tara, which also has a market (its pods are used to produce tannins). However, in the long term sustainability depends on prices of products and markets and that varies significantly between years. Prospects, however, are promising.

Cocoa and coffee plantations under the project are internationally certified through Rainforest Alliance, BCS-OCA and Bird Friendly. Certification of shade coffee and cocoa do support the ecological sustainability of these ventures. That is, although not all activities supported by the PROBONA/ECOBONA can be assured to be ecologically or biodiversity sustainable, at least some of them are certified by credible seals.

On the other hand, there are issues that suggest not everything is as sustainable as one may want. Issues of land tenure in project areas are of the highest importance, and unfortunately the project cannot help solve land tenure disputes. This is certainly a reason for non-sustainability since it will prevent long-term commitments by farmers.

Another concern is that governments seem not interested in replicating the results of PROBONA/ECOBONA. Governments seem happy with PROBONA/ECOBONA results, but not to the extent of funding their replication. According to Mission informants the national government seems to be just “learning some lessons for the future”.
Another sustainability concern refers to the basic assumption of PROBONA that there would be an exchange of reduced pressure on forests for alternative livelihoods (Canje Ecológico). The project is providing them with alternative livelihoods and hopes they will reduce pressures on forests. But unless there is an explicit and enforceable agreement, as project ends farmers may go back to old practices. It is therefore worrying that communities have not been alerted of the *quid pro quo,* as some of our interviews confirmed, and that there are no formal and institutional agreements securing the maintenance of these Canjes Ecológicos beyond the project.

Finally, regarding the maintenance of forest cover, there are important concerns. The project works with only a small fraction of the people involved in ecosystem degradation and with a fraction of the threats. What will happen with forest cover and biodiversity in the future if nobody continues with the remaining people and threats? Perhaps ECOBONA should, as part of its efforts and criteria for success attract new local and international partners that based on successes demonstrated by the project, want to invest in reaching all threats and a large enough fraction of the population endangering the forests.

In conclusion, in the case of FOSEFOR sustainability is linked to having worked with already established seed centres that still exist, although working mostly with exotic species. A second sustainability feature in FOSEFOR is that there is still insufficient pressure on farmers to convert forests into farmlands, and thus there is at least a probability that the system will be able to eventually respond to an increase in the market demand for native forest seeds. It is not known how long this capacity will continue existing. In PROBONA/ECOBONA there are, on the one hand, indications of sustainability at the farmers, municipal and provincial levels, as well as national levels. On the other, there are also some indications of non-sustainability at the farmers and government levels. It is unknown how these factors will play out in the future and how they will impact the sustainability of these initiatives. It is unclear that forest cover and the use of biodiversity

components will be sustainable because there are no measures of the impacts and changes yet.

Lesson learned: Eventual sustainability of project outcomes is not something that just happens. It has to be incorporated into the design of initiatives. In this context, the ECOBONA strategy to work with already committed institutions and to mainstream its goals into municipal and provincial governments provides reasonable assurances of sustainability. Moreover, building on previous projects may also help increase success. ECOBONA worked with people that had some access to PROBONA results and this may increase the chances of sustainability.

Environmental and biodiversity sustainability has to be demonstrated, it cannot just be assumed. A good monitoring and evaluation plan with good indicators may provide evidences of this type of sustainability.

6 Regional Programmes

Regional programmes, involving two or more countries, usually have some benefits compared to two or more national projects and also have extra costs related to the need to have a structure in charge of the regionality. In the case of FOSEFOR and PROBONA/ECOBONA there were benefits and savings arising from regionality in terms of exchanges of experiences. In FOSEFOR, the Normas de Semillas Forestales, for example, were shared among countries and all ended with such norms. In PROBONA/ECOBONA coordination went further and allowed not only for sharing of documents and experiences but actually the simultaneous coordination for a number of its activities. So, even if the forests themselves were different, the project coordinated and co-funded analogous activities in the three countries at the same time. Among activities coordinated in the three countries are analyses and maps of relevant vegetation, management of the production chains of Tara, and studies to assess the possibilities of payments for environmental services and adaptations to climate change. The project's coordination is also working on a Regional for Andean Ecosystems, based on existing efforts in Bolivia, Ecuador and Peru. Informants to the Missions found that regionality gave national projects a net plus and contributed to the overall success of the initiative.

One of the challenges of regional programmes is that in spite of advantages compensating for costs during project execution, after the donor's moneys dry-up, no party wants to take over the regional aspects of the programme. In the case of ECOBONA there is a good match between its goals and the Agenda Ambiental Andina of the Comunidad Andina de Naciones (CAN) and there is a chance that regionality may be taken over by CAN after ECOBONA funding from SDC ends. The project already signed a memorandum of understanding with the CAN Secretariat for coordination and cooperation between the two entities, although there are some challenges ahead that need to be resolved before CAN would be able to become the regional coordination centre. One of these challenges is that project activities so far exist in a fraction of the CAN countries and would need to be expanded for it to become a CAN initiative. How this expansion would occur and how it would be funded, is still unclear.

7 Recommendations

- *What are the recommendations for increasing positive impacts (strengths) and diminishing negative impacts (weaknesses) on biodiversity in the Andean Region?*

If SDC wants to detect possible impacts on biodiversity of its interventions, it should design them with appropriate baselines, indicators and monitoring systems to detect eventual changes in the behaviour of institutions and people towards biodiversity. The two programmes reviewed in Ecuador do not have the means to assess their impacts on beneficiaries, institutions, regulatory frameworks or the environment. Projects have outputs and outcomes, but there is no evidence that these outputs/outcomes are linked to actual changes in the way people and institutions relate to their environments or the biodiversity associated with Andean ecosystems.

If SDC wants to assess its impacts on biodiversity, it is crucial to assess changes in the attitudes of people and in biodiversity. However, rather than attempting to measure changes in biodiversity *per se*, it is faster and cheaper to measure **changes in threats to biodiversity** rather than biodiversity itself. For example, Andean forests in Ecuador are threatened by land clearing for agriculture and pastures, fires, livestock grazing inside the forests, and collection of timber and firewood. Rather than repeatedly measuring biological diversity of several *taxa* in and around the forest, it may be more convenient to periodically assess number and extent of forest fires, number of cows (or any other livestock) grazing in the forest, number of loads carrying timber out of the forest, etc.

- *What are the recommendations on key factors for implementing successful biodiversity conservation while promoting sustainable development for beneficiaries?*
  Experience indicates that mainstreaming into major development programmes and policies and working with already committed governments is most effective in attempting to simultaneously reach conservation and sustainable development for beneficiaries. Innovative projects in this regard, attempting to increase interest on a subject, (such as FOSEFOR) are more risky.

It is also critical that if some areas will be conserved, people fully agree with the purpose and means of conservation. This is usually obtained by developing participatory management plans for the areas.

- *What are the recommendations about what makes biodiversity interventions effective, efficient and sustainable?*

Biodiversity is usually targeted by people in many different ways and frequently there are several simultaneous threats to it. If interventions are going to be effective and show changes in biodiversity-related indicators, they must tackle all threats and a significant fraction of the populations affecting it. This can be expensive and time consuming. SDC interventions seem to be long-term, have more modest means and may need a different approach. Perhaps the SDC approach should be to address only selected threats, and use indicators to assess changes in people's attitudes and reduction of at least some of these threats to biodiversity. Effectiveness in this approach may allow SDC to bring other donors, including governments, into working with the remaining threats and population. Regarding sustainability, experience with biodiversity conservation and use projects indicates that having the main concerns of people at the centre of attention is crucial. Therefore, projects should focus on improving of livelihoods and producing participatory management plans responding to expressed needs of key stakeholders.

- *What are the findings and recommendations regarding the beneficiaries and non-beneficiaries at community, policies, institutional, and national level (roles, responsibilities and collaboration)?*

Conservation and sustainable uses of biodiversity requires commitments and it is therefore important that all beneficiaries and institutions know if there is a *quid pro quo* in the assistance they are receiving. If rural development projects have as one of their aim reducing threats to biodiversity and not only reducing poverty, all stakeholders should know and agree with all measures and conditions. Projects are unlikely to be successful if important mechanisms or conditions are kept out of the negotiations with farmers or institutions. In general, all participants should know and fully agree to the whole package, including compensating resources and activities as well as the possible obligations entailed.

- *What are the recommendations to better address regional issues, such as in the Andean what? Through programmes between Peru, Bolivia and Ecuador?*

Regional programmes are usually welcomed by beneficiary countries and communities, but their cost/benefit is not always clear. Regional projects usually allow for exchanges and learning lessons from experiences in each one of the participating countries. The two projects reviewed are an example of those exchanges. Moreover, regional such as ECOBONA can have common approaches and thus allow for "replication" of initiatives in the three countries. Frequently in regional projects there are benefits for all countries and they all applaud the regional initiative. The test, however, that the cost/benefit analysis really favours the regional initiative over separate national ones, is that countries or regional institutions are willing to fund the regional components and not only national ones.

In general, it may be advisable that at the moment of designing regional projects, and at the moment of deciding upon sustainability, potentially interested regional institutions and the various governments are included in the discussions and a joint decision is made regarding how to sustain the regionality components of the project. ECOBONA is currently investigating if the Comunidad Andina de Naciones is interested in continuing with the project and is finding that regional sustainability is posing some non-anticipated challenges, that could perhaps have been minimized, had consultations been done at the moment of project design.

- *What are the recommendations to improve the mainstreaming of biodiversity concerns in SDC portfolio while keeping the poverty alleviation objective well in focus?*

If SDC wants to include potential biodiversity impacts within its poverty-alleviation portfolio, it should include concerns for biodiversity components already in project design. Biodiversity concerns should not be raised after project completion or when projects are ending. Thus, at the design stage, SDC should support identification of threats to biodiversity arising from people's livelihoods, identify the target populations threatening biodiversity components. As part of remedial measures it should help develop biodiversity outcomes in terms of reduced threats and attitude changes. As part of these efforts it should support the development of appropriate monitoring and evaluation systems with indicators that are able to eventually show the desired changes.

- *What are the recommendations to better position and focus the biodiversity convention within SDC's portfolio in general and in Bolivia in particular, while keeping the poverty alleviation objective well in focus?*

The goals of the CBD are conservation, sustainable uses of biodiversity components, and equitable sharing of benefits emerging from uses of genetic resources (now meant to be biodiversity resources). Therefore, rural poverty alleviation projects using (consumptive or non-consumptive uses) components of native biodiversity are good candidates to become contributions to the implementation of the CBD in developing country Parties. SDC may want to examine such projects and decide if they want to include biodiversity contributions to it. Special care should be taken though that biodiversity-promoting activities are not done at the expense of other biodiversity (for example, forest clearing to plant a commercially attractive native species), or even worse, eliminating native biodiversity to introduce high value exotics (for example, forest clearing to plant eucalypts or introduce livestock).

There are other important CBD criteria, such as capacity building (at the individual, organisations /governments and systemic (laws, national and regional regulations) levels, transfer of technologies, education, increasing awareness, and having developed country Parties, such as Switzerland; help implement the CBD in developing country Parties. Once it is decided that a rural development project will have biodiversity components, one or more of these other criteria will become means to achieve sustainable uses of biodiversity.

- *What are the recommendations to improve the link between biodiversity activities/components of the SDC support and the new climate change and food security priorities of SDC? What would be specific and ideal intersections in the portfolio to bring more in focus the climate change (adaptation and mitigation) and food security agendas?*

Fortunately, there is congruence between, on the one hand, protecting biodiversity and thus contributing to the maintenance of species, varieties with-species and ecosystem-types, and, on the other, climate change and food security. A natural insurance against climate changes of unknown magnitudes and signs, as well as against uncertain food availability is protecting existing within-species varieties (for example of potatoes and quinoa), species that may serve as resources in the future and the ecosystems that maintain this diversity. Different species and within-species varieties usually have different tolerances for temperature, humidity, soil conditions, rainfall, etc. and protecting them will increase chances that at least some of them will survive in future conditions. Therefore, if SDC is effective in protecting biodiversity, in other words, supporting its sustainable uses and conservation, it will be simultaneously helping reduce food insecurity and helping adaptation against climate change. In addition SDC may want to specifically address protecting existing varieties of traditional Andean cultivars and native species that Andean people use in their livelihoods.

ANNEXES

Annex 1 Ecuador Mission Plan

Date	Times	Place	Activities
26.01.09	09:00 - 13:00	Intercooperation, Ecobona[9]	**Beginning of Mission.** Workshop with Cosude and Intercooperation. Present: Maria de los Angeles Barrionuevo (Asistente Tecnico Regional y Ecuador de ECOBONA), Patricia Camacho (Delegada para la Region Andina), Juan Carlos Romero (Encargado Ecuador ECOBONA), Galo Medina (Coordinador Regional ECOBONA), Galo Sanchez (SDC Ecuador)
	15:00 - 16:30	Intercooperation	Meeting with Regional Governments of Napo y Loja, Patricio Roa (Jefe Direccion Ambiental Gobierno Provincial Napo) y Osvaldo Campoverde (Gobierno Provincial de Loja)
	17:00 - 18:00	FONAG[10]	Meeting with Pablo Lloret (Secretario Tecnico de FONAG)
27.01.09	08:30 09:15 10:00 - 10:30	Ministerio del Ambiente (MAE)[11]	Meeting with Gustavo Galindo, (Encargado de Politicas y Normas Forestales. Dirección Nacional Forestal del MAE). Meeting with the Climate Change Focal Point , Diego Colina
	11:00 -12:00	CESA[12]	Meeting with Francisco Roman (Director Central Ecuatoriana de Servicios Agricolas, CESA)
	14:00 - 15:30	SAMIRI[13]	Meeting with Alfredo Carrasco (ex-coordinador de FOSEFOR y PROBONA) at SAMIRI
	16:00 - 17:00	USAID[14]	Meeting with Thomas Rhodes, Director Oficina Desarrollo Economico, Crecimiento y Medio Ambiente, USAID Ecuador)
28.01.09	10:00 - 11:00	ECOLEX[15]	Meeting with Manolo Morales (Director Ejecutivo de ECOLEX y Presidente de CEDENMA)
	11:30 12:00	Ecociencia[16]	Meeting with Janette Ulloa (Directora Ejecutiva de Ecociencia)
	14:30: 15:30	GTZ[17]	Meeting with Juan Rodriguez (Asesor de Cadena de Cafe y Responsable del Proyecto Condor de GTZ)

[9] Faustino Sarmiento 3977 y Moncayo, (Por el Centro Comercial Olímpico)
[10] Av. Mariana de Jesús y Carvajal
[11] Av. Amazonas y Eloy Alfaro, Edif. MAG, piso 7
[12] Inglaterra 532 y Vancouver
[13] Inglaterra 1011 y Mariana de Jesús, Edif. Ayala, 4to. piso
[14] Avigiras E12-170 y Eloy Alfaro
[15] Valladolid 720 y Guipúzcoa
[16] Francisco Salazar E14-34 y Coruña
[17] Eloy Alfaro y Amazonas; Edificio MAG, 4to. piso

29.01.09	08:30 - 09:30	CAMAREN[18]	Meeting with Antonio Gaibor (Director de CAMAREN)
	10:00 - 12:00	Corpei[19]	Meeting with Maria Arguello (Programa Biocomercio de Corpei)
	14:30 15:30	SDC	Meeting with Xavier Ixto (Consultor SDC). **End of Mission**

Annex 2

Spanish version of the questionnaire used with governments, SDC, programme Directors and donors. Interviews were roughly 30´each and questions were raised as appropriate and needed. Usually for each interviewed only a small fraction of these questions could be answered.

PARA FUNCIONARIOS DEL GOBIERNO (VARIOS NIVELES), EL PERSONAL DE COSUDE, DIRECTORES DE PROGRAMAS Y OTROS DONANTES

Nombre completo: _____
Organización/ministerio: _____
Cargo: _____
Fecha: _____

	Pertinencia
1	**¿Estaba el programa (proyecto) orientado a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos? ¿Cómo?**
2	**¿Habían expresado los beneficiarios sus deseos de mejorar su situación a través de aumentar su acceso y uso de la flora y fauna nativa? ¿Cómo?**
	¿Se tomó en cuenta el mejoramiento de los beneficios de los usuarios en el diseño del proyecto? ¿Cómo?
	a) ¿En su diseño, ha introducido el programa/proyecto auspiciado por COSUDE **nuevas prácticas y usos que hayan beneficiado a la población local**? **¿Cómo?**
	b) ¿Se tomó en cuenta la **sostenibilidad ecológica** en el diseño del proyecto/programa? **¿Cómo?**
	c) ¿Se ha abordado en estos proyectos (programas) el papel que juegan **hombres y mujeres** y los **impactos diferenciados** en su desarrollo? ¿Cómo?
	c1) ¿Se ha respetado **los valores y cultura** locales en la concepción del Proyecto? ¿Cómo?
3	**¿En el diseño del proyecto (programa), ¿Cómo se consideraron las prioridades nacionales y regionales de biodiversidad (flora y fauna) y los planes oficiales de reducción a la pobreza y/o desarrollo nacional?**
	a) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) lo que se hacía (hace) como parte de iniciativas de los países andinos?
	b) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) los **compromisos suizos con el CBD**?
	c) ¿Cuál fue el nivel de **coherencia entre los objetivos y métodos** de COSUDE y los

[18] Alpallana E6-178 y Wimper, Edif. SPRO, 3er. piso
[19] Av. Eloy Alfaro y Amazonas

	objetivos y enfoques del país? Ejemplo: objetivos del Proyecto de COSUDE vs objetivos del país.
	d) Hubo cambios en las prioridades nacionales y regionales influenciados por el apoyo de COSUDE? ¿Cuáles fueron?
	e) ¿Hubo **cambios en la prioridad dada a la biodiversidad** a nivel nacional o regional debido a proyectos (programas) de COSUDE? ¿Cuáles fueron?
4	**¿Ha habido coherencia entre el diseño del proyecto y los componentes de biodiversidad reconocidamente amenazados en la región (ya sea a nivel de sub-especies o variedades de especies y hábitat en la región)?**
5	**¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados y los objetivos del programa de COSUDE?**
6	**¿Cómo podría ser mejorada la pertinencia de los proyectos COSUDE en biodiversidad para atender al cambio climático (mitigación y adaptación) en las zonas del proyecto?**
7	**¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las crecientes preocupaciones por la seguridad alimentaria?**
	IMPACTOS:
8	**¿Cómo ha logrado el programa (proyecto) mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos?**
	¿Los usan ahora **más que antes**?
	¿Cómo se ha traducido esta mejoría de acceso en la **vida diaria de los beneficiarios**?
9	**¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre las prioridades a nivel nacional y regional?**
10	**¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre políticas al nivel municipal y provincial?**
11	**Impacto de las actividades de biodiversidad de COSUDE sobre:**
	i) **Los modos de vida de las poblaciones rurales**, incluyendo impactos indirectos socio-económicos que siguen al impacto directamente relacionado con la biodiversidad.
	ii) **La gente pobre**, especialmente los que viven en áreas con baja productividad agrícola, que dependen fuerte y directamente de la diversidad genética y de la biodiversidad de ecosistemas para mantener su subsistencia.
	• ¿Qué cambios ha habido en la incidencia de pobreza en las áreas de trabajo de COSUDE? (**Por sexo y grupo étnico** si la información está disponible). ¿Cuál fue el aporte de los proyectos de COSUDE que incluyen biodiversidad a estos cambios (cambios atribuibles a BD?
	• ¿Qué cambios ha habido en los **ingresos de las familias** relacionados con los usos de la flora y fauna nativas?
	• ¿**Para qué usan** las familias estos **nuevos ingresos**?

	• ¿Qué cambios ha habido en las posiciones sociales correlacionadas con cambios en el uso de los recursos biológicos (**por sexo y grupo étnico** si la información está disponible)?
	• ¿Qué cambios ha habido asociados a la **nutrición y salud** de las familias?
	• ¿Qué **otros cambios socio-económicos y políticos**, voluntarios o involuntarios, han sido identificados (**por sexo y grupo étnico** si la información está disponible)?
	• Con respecto a los recursos de flora y fauna, ¿Qué cambios ha habido en su distribución, gestión, acceso o control? (Por sexo y grupo étnico, en lo posible). **Distribución** **Gestión** **Acceso/Control**
12	**¿Cuál ha sido el nivel de acceso y de uso sostenible de recursos naturales por parte de los beneficiarios?**
13	**¿Cuánta participación ha habido en la preparación y gestión de los proyectos COSUDE?**
14	**¿Cómo fueron tomados en cuenta los principales sectores económicos en el área?**
	¿Hay algún impacto sobre la **sostenibilidad ecológica** a causa de cambios en actividades económicas generadas por los programas de COSUDE? ¿Cuál es el impacto?
15	**¿En qué aspectos ha mejorado la capacidad de las instituciones asociadas a proyectos COSUDE?**
16	**¿Cuán eficaces son ahora esas instituciones fortalecidas (empoderadas)?**
17	**¿Ha habido mejora o pérdida de biodiversidad en las áreas del Proyecto? Por ejemplo…**
	a) Cómo consecuencia de los proyectos COSUDE, ¿Qué cambios hay en la **cubierta forestal** de especies nativas en las zonas beneficiadas?
	b) ¿Qué cambios hay en el **número de especies usadas** de manera sostenible?
	c) Como consecuencia de los proyectos COSUDE, ¿Cuáles **cambios** hay en la superficie y el número de **áreas conservadas**?
	d) ¿Qué cambios hay en la presencia o abundancia de **especies nativas** en las áreas beneficiadas?
	e) ¿Qué cambios hay en el número de **variedades de cultivos nativos** conservadas o bajo usos sostenibles que puedan atribuirse a los proyectos COSUDE?
	f) ¿Puede decirse que los proyectos COSUDE han ayudado a **proteger recursos naturales en el largo plazo**? ¿Cómo?
	g) Como consecuencia de los proyectos de COSUDE, ¿qué cambios hay en la **situación legal de tierras** que podrían contribuir a la protección de la flora y fauna nativas?

	h) Como consecuencia de los proyectos de COSUDE, ¿Qué instrumentos **legales y capacidades de fiscalización y sanción** se han establecido para la protección de la flora y fauna nativas?
	i) Cómo consecuencia de los proyectos de COSUDE, ¿Qué capacidad **financiera y compromisos de largo plazo** existen para la protección de la flora y fauna nativas?
18	**¿Hasta qué punto los valores de conservación la conservación y uso sostenible apoyados por el Proyecto son compartidos por los actores al nivel local, regional y nacional?**
	SOSTENIBILIDAD
19	**¿Cuál es la probable sostenibilidad política e institucional de los resultados del Proyecto? ¿Cómo se hubiera podido mejorar?**
	a) Como consecuencia de los proyectos COSUDE, ¿Cómo ha cambiado el nivel de **compromiso político** con la conservación de la BD?
	b) Como consecuencia de los proyectos, ¿Cómo han mejorado los **servicios** proporcionados por las **instituciones fortalecidas**?
	c) ¿Cuál es el nivel de mejoramiento en la **entrega de servicios** como resultado del apoyo de COSUDE?
20	**¿Son socialmente y culturalmente aceptables los resultados? ¿Qué hubiera podido mejorar esa aceptación?**
	a) ¿Cuáles son los **impactos socio/culturales positivos** medidos y cómo se comparan éstos con los **efectos negativos** o involuntarios que pudieran haberse producido?
21	**¿Serán económica y financieramente sostenibles los logros de los proyectos? ¿Cómo? ¿Cómo se podría mejorar la sostenibilidad?**
	a) ¿Se han medido **impactos económicos y financieros positivos** y se los ha contrastado con **impactos negativos** e involuntarios?
	b) ¿Hay **financiamiento y mecanismos referidos a COSUDE comprometidos** para la conservación y usos sostenibles de la BD y para ayudar a modos de vida sostenibles?
	c) ¿Cuál es la **viabilidad financiera y económica** de los modos de vida desarrollados en los proyectos de COSUDE?
22	**¿Cómo serán ecológicamente sostenibles los resultados de los proyectos? ¿Qué hubiera podido mejorar esta sostenibilidad?**
	EFICACIA
23	**¿Qué tan exitosos fueron los programas en lograr sus resultados de uso sostenible de la biodiversidad?**
24	**¿Cómo han contribuido las actividades de BD de los programas/proyectos a lograr la meta de aliviar la pobreza?**
	¿La **influencia** de las componentes de biodiversidad ha sido mayor **en lo político, institucional, socio-económico o ecológico**?

Annex 3

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Evaluators` Final Case Study

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List of Acronyms

ADDIPA	Asociación para el Desarrollo del Distrito de Pacobamba (Apurímac)
ADEFOR	Asociación para la Investigación y el Desarrollo Forestal
ADERS	Asociación para el Desarrollo Sostenible del Peru
AgroRural	Programa de Desarrollo Productivo Agrario Rural.
CAPAC PERU	Cadenas Productivas Agrícolas de Calidad
CBD	Convention on Biological Diversity
CIP	Centro Internacional de la Papa
CONAM	National Environmental Counci
DAC	Development Assistance Committee
DGPA	Dirección General de Promoción Agraria (within the Ministry of Agriculture)
ENF	Peru Forest Strategy
ENDB	Estrategia Nacional de Diversidad Biológica
ENSO	El Niño Southern Oscillation
ECOBONA	Regional Programme for the Management of Andean Forest Ecosystems of Bolivia, Ecuador and Peru.
EU	European Union
FOSEFOR	Fund to support the production of forest seeds
FOVIDA	Fomento de la Vida
ICDP	Integrated Conservation and Development ProjectsINCOPA Proyecto de Innovación Tecnológica y Competitividad de la Papa en Peru
INIA	Insituto Nacional de Innovación Agraria
INRENA	Insituto Nacional de Recursos Naturales
ITTO	International Tropical Timber Organisation
MAA	Mangamanguilla Agrarian Association
masl	metres above sea level
MINAG	Ministerio de Agricultura
MINAM	Ministerio del Ambiente
PCPA	INCOPA's Production Chain Participatory Approach
PRODUCE	Ministerio de la Producción
PRONAMACHS	Programa Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos
SDC	Swiss Agency for Development and Cooperation
SENASA	Servicio Nacional de Seguridad Agraria
SERNANP	Servicio Nacional de Áreas Protegidas
UDEP	Universidad de Piura
NCI	Nature and Culture International

1 Introduction

This case study will discuss three projects/programmes implemented in Peru: FOSEFOR; PROBONA/ECOBONA and INCOPA. Two of them, FOSEFOR and PROBONA/ ECOBONA are regional programmes, also executed in Ecuador and Bolivia. This study will discuss only findings for the three projects/programmes in Peru.

The main purpose of the three projects/programmes is poverty alleviation with a focus on small farmers living in the Peruvian highlands, and not biodiversity conservation and its sustainable uses (please see Picture 6.1, Annex 6). This is markedly so in the case of INCOPA, the purpose of which is to remove market and technological barriers preventing small potato farmers in the highlands of Peru from improving their livelihoods[1,2]. This also holds for FOSEFOR, with the goal of increasing the production of the quality and quantity of seeds of native and exotic tree species through research, production and marketing. FOSEFOR's grander goal was to improve the quality of life of local populations[3]. In ECOBONA the main purpose is also poverty alleviation, but with a larger emphasis on the conservation and sustainable uses of biodiversity components. ECOBONA aims at the social management of Andean forest ecosystems and the improvement of the quality of life of small farmers through the application of instruments for the sustainable management of forests, and institutional strengthening of responsible governments[4]. Although the main purpose of these projects/programmes is not biodiversity management, the Swiss Agency for Development and Cooperation (SDC) is interested in knowing if they nevertheless make a contribution to the goals of the Convention on Biological Diversity (CBD).

1.1 Biodiversity in Peru

In 2007, the Peruvian GDP per capita was in the order of US$ 3,910 and the total GDP amounted to US$ 109.1 billion. Agriculture, one of Peru's most important resource-based activities, accounted for 6.3% of the GDP[5].

Although only two thirds of the country has been sampled, Peru is recognized as one of the twelve megadiverse countries of the world. Peru has a high diversity of species with some 25,000 plant species[6]; 460 mammal species, making it third in the world; over 340 amphibian species (fourth in the world); 1,811 bird species[7] (second in the world to Colombia); 365 reptile species (fifth in the world); and almost 2,000 marine and fresh-water fish species (first in the world) [8]. Peru's species endemism is very high, with at least 6,288 endemic species, 5,528 of which are flora species and 760 are species of fauna[9].

[1] SDC, 2004. Phase II Proposition de crédit Nº 7F-01373.02
[2] SDC 2007. Phase III Proposition de crédit Nº 7F-01373.03
[3] Van Dam, Chris, 2009. Sistematización de aprendizajes de los programas PROBONA/ECOBONA y FOSEFOR. Informe de Consultoría a InterCooperation. Enero 2009
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[6] See Brack Egg, A. (sd). Economía y Conservación de la Diversidad Biológica. Mimeo
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Peru also has rich within-species diversity of over 128 cultivated species and is one of the most ancient sites of crop domestication, over 6,000 years. Peru has the richest endowment of potato species and varieties on the planet. Currently there are nine species of the tuber-producing genus *Solanum* qualifying as "potatoes" and nearly 3000 recognized varieties of potatoes[10],[11] Please see also Picture 6.4 and 6.5, Annex 6.

The following table lists the currently recognized potato species in Peru:

Solanum goniocalyx
Solanum tuberosum Subsp andigena
Subsp tuberosum
Solanum phureja
Solanum x chaucha
Solanum x juzepczukii
Solanum x curtilobum
Solanum x stenotomum
Solanum x ajanhuiri
Solanum hygrothermicum

Potato biodiversity has been generated and maintained in the mountainous areas of the Peruvian Andes largely due to complex patterns of experimentation and exchanges of people since ancestral times. "White potatoes", consumed in the rest of the world are derived from some of these stocks. White potatoes are genetically improved hybrids with known horticulture, high yields and known markets. Native potatoes, with the exception of "Yellow Potato" are little known, do not have markets and their horticulture is limited to traditional practices[12].

These three larger classes of potatoes exhibit altitudinal segregation: Colour potatoes (all native varieties excepting yellow ones) tend to be restricted to the highest altitudinal belts (3500 and more meters above sea level - masl), yellow potatoes are in a lower belt and white potatoes predominate in the lowlands. In practice now, demarcations are not as clear cut because farmers tend to plant small quantities of the more commercial varieties of white and yellow potatoes as high as they can, even at the risk of losing to cold spells the entire white or yellow potato crop. As an example of the bias in the commercialisation of these varieties, in 1998-1999 roughly 1000 tonnes of potatoes reached Lima daily, of which only 20 tonnes were natives, mostly yellow ones[13].

Andean forested ecosystems are extraordinarily varied and complex in terms of their morphology, geology, flora and fauna and their social features (Please see Picture 6.2, and 6.3, Annex 6). They cover 30% of the national territory, hosting some 15,000 plant species out of the approximately 25,000 existing in Peru. The most representative vegetation is found in relict queñual forests, associated to quishuar (*Buddleja incana*), colle (*Buddleja coriacea*), tasta (*Escallonia angustifolia)*, chachacomo (*Escallonia resinosa*), aliso (*Alnus acuminata*), sauco (*Sambucus peruviana*), among others[14].

[10] Brack Egg, Antonio (sd). Economía y Conservación de la Diversidad Biológica. Mimeo
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Of the almost 80 million hectares of forests in Peru, at least one million is reported to be the Andean highlands (above 800 masl, according to PROBONA (Julca 2005[15]) and ECOBONA (ECOBONA Programme staff[16]). This cover of Andean Forests is an underestimate based on *Polylepis* sp, located in the upper highlands of the country. A map of what would be Andean Native Forests (Bosque Montano) in Peru is shown below.

Andean Native Forest Distribution in Peru, a proposal by Julca (2005)

Source: Julca 2005

[15] Julca Ch., Pedro. 2005. Bosques Nativos Andinos en el Perú: Actualización y Análisis Situacional. Documento de Trabajo. Working paper, sponsored by Peru's Consejo Nacional del Ambiente, Intercooperation, PROBONA, COSUDE and Samiri. Lima: December 2005

[16] Personal communication during interviews

1.2 The projects/programmes

The three projects/programmes in Peru provide an interesting mix, with two of the initiatives clearly aiming at using and marketing biodiversity (seeds and potatoes) and the third one attempting to conserve and use native forest biodiversity. This case study should help understand the relative merit of these approaches *vis*-à-*vis* conservation and sustainable uses of components of native biodiversity.

ECOBONA is the concluding phase of a sequence of projects dealing with Andean Forest Ecosystems, all under the name of PROBONA. While PROBONA projects worked with local farmers in and around Andean forests, with the aim of helping them protect the forests and helping them use forests sustainably, the objectives of its terminal ECOBONA phase are the wider forested ecosystems of the high Andes, the institutionalisation of norms and processes in governments at the micro (municipalities, professional associations), meso (provincial governments) and macro (central governments) levels. For PROBONA the emphasis was on field demonstrations of management and eventual compensatory mechanisms to farmers for using forests sustainably, whereas for ECOBONA the goal is the social management of Andean forest ecosystems and the improvement of the quality of life of small farmers. The main focus of ECOBONA is on the meso-level (local governments) and the institutionalisation of practices and policies at the micro (community) level. PROBONA-ECOBONA is a small programme not intending to eliminate all threats to the forested ecosystems but showing how it could be done and setting the institutional foundations for replication by other implementers and donors[17].

FOSEFOR´s goal was to increase the supply of quality seeds of native and exotic tree species through research, production and marketing. It helped strengthen existing seed centres to which FOSEFOR provided technical assistance. As indicated in its Final Report[18], the programme had two phases, with specific objectives in each one of them.

> Phase I Objective (2000-2003):
> To promote common actions among institutions and players taking part in the seed market that foster the use of propagation material of high quality and known origin.
> Phase II Objective (2004-2005):
> To foster common actions aimed at dynamizing the production-commercialisation chains of quality tree seeds in the Andean zones and supporting regulatory framework governing these chains. (Samiri-Pro-Gea, 2006).

INCOPA, the "Competitive Promotion of Peruvian Potato to respond to New Market Opportunities" project, is implemented by the International Potato Centre (CIP). Its purpose is to improve the livelihoods of highland farmers by focusing on native potato species and varieties and taking advantage of new local and international market opportunities.

INCOPA is catalysing the establishment of production chains linking small potato farmers in the high Andes with needs of consumers in urban centres, such as Lima. These production chains have as beneficiaries both the small farmers and urban consumers. Ultimately, small farmers would achieve higher and more predictable incomes and urban consumers would increase their access to native potato biodiversity. Farmers would have access to new technologies and market approaches as well as strengthened capacities.

[17] Van Dam, Chris, 2009. Sistematización de aprendizajes de los programas PROBONA/ECOBONA y FOSEFOR. Informe de Consultoría a InterCooperation. Enero 2009
[18] Samiri-Progea (Coordinación). 2006. Informe Final de la Fase II. FOSEFOR. Quito: Enero 2006

The project has gone through three phases, with specific objectives in each phase.

> Phase I: 2001-2003
> To improve the competitiveness of small-scale potato producers in the Peruvian highlands, taking advantage of potato biodiversity and promoting alliances among different potato chain actors through multi-stakeholder platforms (national and regional)[19].
>
> Phase II: 2004-2007
> To improve the competitiveness of the potato chain, with emphasis on small farmers, taking advantage of new market opportunities and promoting the use of Native Peruvian potatoes[20].
>
> Phase III: 2008-2010
> To promote the competitiveness of the potato chain, with emphasis on small-scale producers, taking advantage of new market opportunities and promoting the use of Peruvian potato, within the framework of a public-private institutionalization that favours the modernization of the sector[21].

ECOBONA is implemented in the forested highlands over 800 masl, including dry and humid forests, mostly on slopes with rainfall ranging between 600 and 2,000 mm/year. The review of the programme literature and the information gathered during the field trips, lead to the conclusion that major threats to native Andean forested ecosystems are land conversion to agriculture and cattle ranching, livestock grazing in the forests, harvesting of timber and fuel wood, hunting, some pollution associated to mining activities, fires (under the belief that it increases rain and soil fertility), all in a context of low awareness of the importance of these forested ecosystems.

The extension of the programme area in Apurimac is 1,659.87 km^2, of which 1,413.97 km^2 belong to four districts of the Abancay Province (Curahuasi, Huanipaca, San Pedro de Cahora and Tamburco), and the remaining 245.9 km^2 are part of the district of Pacobamba, belonging to the Province of Andahuaylas. The size of the Chinchay Forest is about 25 km^2.

In Piura, the extension of the programme area is 5,230.7 km^2 (Ayabaca Province) and the size of the Cuyas Forest is 15 km^2. The total number of potential beneficiaries in Apurimac and Piura is 40,754 and 138,245 people, respectively. This is presented in the following table.

[19] SDC, 2007. Phase III Proposition de crédit Nº 7F-01373.03
[20] SDC, 2004. Phase II Proposition de crédit Nº 7F-01373.02
[21] SDC, 2007. Phase III Proposition de crédit Nº 7F-01373.03

Geographic extension and number of beneficiaries, ECOBONA Programme			
Location	**Total Extension (Km^2)**	**Target Forest Extension (Km^2)**	**Population**
Apurimac:			
Saywite-Choquequirao-Ampay Commonwealth	***1,659.87***		***40,754***
Curahuasi (District)	NA		18,556
Huanipaca (District)	NA		5,257
San Pedro de Cachora (District)	NA		3,763
Tamburco (District)	NA		7,216
Pacobamba (Community)	245.9	25	5,962
Piura:			
Ayabaca (Province)	***5,230.7***	***15***	***138,245***
Total	***6,890.57***	***40***	***178,999***
Source: Roberto Kometter and Rebeca Dumet (ECOBONA Project), personal communication, Feb 10, 2009.			

With the only exception of Piura's coast line, **FOSEFOR** was implemented basically in the upper highlands of Peru, in Piura, Cajamarca and Ancash, where seed trees were identified and seeds gathered. Some policy interventions at the macro level had necessary to take place in Peru's capital city, Lima.

INCOPA interventions have been mainly in the upper highlands of the departments of Huánuco and Puno, where production of native potatoes takes place and Lima, where CIP Headquarters and the final consumers are located.

ECOBONA has been designed with a timeframe between 2006 and 2009. Implementers hope that the programme will be extended through 2011. The budget is US$ 1,000,050, with US$ 300,000 directed to assist the activities in Apurimac and US$ 200,000 for Piura[22]. Prior to ECOBONA, PROBONA had provided support in the order of US$ 30,000 for programme implementation in Peru [23].

FOSEFOR had two phases. The first one was implemented from year 2001 to 2003 and the second phase lasted from year 2004 to 2005. The first Phase had a total budget of US$ 1,189,000, of which US$ 287,500 were allocated to Peru [24]. The figures for the second Phase were US$ 490,000 (total budget) and US$ 87,195 (Peru)[25]. FOSEFOR was managed out of

[22] ECOBONA Project Management

[23] One of the areas currently served y ECOBONA was also covered by PROBONA, the Cuyas Forest in the Cuyas Cuchayo Community, Province of Ayabaca, in the Piura Region. The other area covered by PROBONA is the Huanipaca Forest, also currently being supported by ECOBONA to a lesser degree, since the focus is more on Pacobamba – both Huanipaca and Pacobamba are located in Apurimac. PROBONA information is based on Samiri-Progea (Coordinación). 2006b. Informe Final de la Fase II. FOSEFOR. Quito: Abril de 2006

[24] These figures are highly reliable and based on an evaluation that seems very well laid out: Van Dam, Chris and Adrián Sommer 2003. Programa Andino de Fomento de Semillas Forestales. FOSEFOR. Evaluación del Programa. Quito: February 2003

[25] Phase II figures have been recalculated based on: i) COSUDE and Intercooperation 2003. Programa Andino de Fomento de Semillas Forestales. FOSEFOR. Plan Rector de la Fase II. Quito: September 2003; and ii) Samiri-Progea (Coordinación). 2006. Informe Final de la Fase II. FOSEFOR. Quito: Enero 2006. Annexes A-U. The figures calculated by the Evaluation Team for Phase II should be taken with some caution since they were estimated indirectly in the absence of data

Quito and there was no real programme manager in Peru. One of the informants in Piura, a former programme implementer, indicated that this in part was explained by the fact that the official counterpart (the National Institute of Natural Resources) was not responsive to programme initiatives and this may have led project/programme managers based in Quito to proceed with little or no coordination with its official Peruvian counterpart.

INCOPA has been clearly divided into three phases with highly differentiated foci. During Phase I, covering the period 2001-2003, the methodological approaches and instruments were developed, including the Production Chain Participatory Approach (PCPA). The budget for this phase was CHF 1,000,000 (US$ 741,175). Phase II spanned 2004 through 2007 and focused on the design and implementation of pilot projects, with Tika Papa as the flag ship of them, and the creation of local networks. This phase had a total budget of CHF 1,000,000 (US$ 741,175). Phase III started in 2007 and will last until 2010, with a focus on the consolidation of a competitiveness ethos and the replication of commercial activities with a total budget of CHF 1,450,000 (US$ 1,160,000) [26, 27].

ECOBONA´s official counterpart in the Peruvian Government was initially the National Environmental Council (CONAM), now the Ministry of Environment. At the meso level, the Programme's key partners are the District of Pacobamba and the Province of Andahuaylas, in Apurimac, and the Provincial Municipality of Ayabaca in Cajamarca. It has also worked with the Regional Government of Apurimac, the National Protected Areas Service (SERNANP), Agro Rural (Watershed and Soil Protection Programme) and the newly created Forest and Wildlife General Directorate, previously part of the National Institute of Natural Resources (INRENA).

FOSEFOR´s official counterpart in the Peruvian Government was CONAM. The programme acted mainly through a number of NGO's, such as Asociación para la Investigación y el Desarrollo Forestal (ADEFOR) in Cajamarca, Centro IDEAS in Piura; Universities, specifically Universidad de Piura; and a local private firm by the name of Arborizaciones (Afforestation, Inc.)[28].

INCOPA´s official counterpart in the Peruvian Government is the Ministry of Agriculture's General Directorate of Agrarian Promotion. The other governmental partner is The National Institute of Agrarian Innovation (INIA),. The project has numerous of its activities implemented by local nongovernmental organisations (NGO's), including Asociación para el Desarrollo Sostenible del Peru (ADERS), , especially in Huánuco; and (Cadenas Productivas Agrícolas de Calidad)CAPAC PERU, of national coverage.

Basic information on the three projects/programmes covered by this case study is summarised in Annex 1.

[26] SDC, 2004. Phase II Proposition de crédit Nº 7F-01373.02
[27] SDC 2007. Phase III Proposition de crédit Nº 7F-01373.03
[28] The information on Counterparts was provided by interviewees from the Government of Peru and former implementers in Piura and Lima

The following map shows the project/programme interventions areas superimposed on an ecoregions map of the country:

Ecoregional Map of Peru and Project/Programme Sites

1.3 Methodology

Initial information about the projects/programmes came from the set of documents sent by SDC to Baastel in September 2009 (Annex 2). A review of these documents became the basis for the elaboration of the Inception Report. Upon approval of the Inception Report, the Evaluation Team refined the data collection instruments, basically the semi-structured interviews to be applied in the field for three types of target audience/informants: i) Governmental and donor representatives, including those of the local SDC offices and Project Managers (this is the Macro and Meso level interview form, presented in Annex 3 a);

ii) Local organisations directly working with the beneficiaries and the beneficiaries themselves (Micro level interview forms – one for implementers, one for beneficiaries- both presented in Annex 3b) Please see Pictures 6.6, 6.7, 6.8, 6.11, Annex 6). These instruments needed to be standardised and translated to Spanish before their application in the field.

The Peru field Mission, including Jorge Elgegren and Eduardo Fuentes, began on January 11 and ended on January 25th according to the schedule presented in Annex 4. To complete these site visits, two additional trips by Jorge Elgegren were scheduled during the month of February and early March. A list of people interviewed is shown in Annex 5. Annex 6 shows some pictures of project/programme people and areas.

This review is not a summary of opinions and project/programme documents, but an evaluation based on the review and "triangulation" of information contained in general SDC papers and documents pertaining to the three projects/programmes, on the one hand, and what was collected during the field visits, on the other. The Mission made an effort to be critical in the use of existing information and materials obtained from structured and semi-structured interviews to assess the key questions asked by SDC in its document: "**SDC´s Contributions towards Biodiversity: Impact in the Andean Region"**. In particular, the review emphasised the role of the Swiss cooperation and the three projects/programmes in helping to implement the CBD.

In the remaining sections the evaluation will apply the Development Assistance Committee (DAC) criteria of Relevance, Impacts, Effectiveness and Sustainability to the three projects/programmes, with a special emphasis on the Relevance and Impact criteria. At the end some general recommendations are presented.

2 Relevance

Relevance determines if projects and programmes were in line with the needs of beneficiaries, the existing legal and regulatory frameworks, and the key environmental concerns in the country. In the following sections relevance will be examined for these three dimensions in this same order.

2.1 To Beneficiaries

These projects/programmes were relevant from the perspective of their beneficiaries. FOSEFOR, INCOPA, and PROBONA/ECOBONA are fully consistent with the National Plan to Fight Poverty in one of Peru's poorest regions, the highlands[29]. For both, INCOPA and ECOBONA, the Local Consensus-building Tables to Fight Poverty are key partners[30]. Consistent with SDC's poverty-alleviation focus, these projects/programmes were expected to increase the incomes of highlanders and people in the lowlands would have more access to a diversity of natural resources. Both sectors would gain and thus the projects/programmes would help Peru reach its commitments towards the CBD in terms of equitable sharing of benefits arising from the uses of its native biodiversity. The improvement in the benefits of local beneficiaries was taken into account in the design of FOSEFOR, as a general objective. However, very little was done operationally, mainly in terms of income generation.

[29] Peru's Poverty Map and its supporting/justification documents are available at: http://www.foncodes.gob.pe/mapapobreza/, site visited on February 26, 2009

[30] Numerous such discussion Tables exist in Peru, especially in the areas served by all three projects evaluated

FOSEFOR was complementary to Plan Sierra Verde[31] - a project promoted during the ruling of President Alberto Fujimori to reforest Peru's highlands and widely covered by the media.

All projects were responsive to the aspiration of local governments and local populations to manage biodiversity resources. In the case of ECOBONA, as pointed out by representatives of the Municipality of Pacobamba (in Apurimac), the Municipality became interested and then engaged because they saw that ECOBONA's approach and proposed objective were fully consistent with their own objective to manage local natural resources in a sustainable manner. The Mayor had committed himself to a sustainable use of natural resources during his campaign and received the programme with open arms. Another interesting aspect, highlighted by both the local authorities and the programme implementer, was that both ECOBONA and the Municipality believed in cost-sharing, and that materialised, first in the form of an agreement and then as co-funding during the actual implementation of the programme.

2.2 To Policy Frameworks

The goals of all three projects/programmes are fully consistent with the Agenda Ambiental Andina (2006-2010[32]), with Peruvian priorities and commitments towards the CBD[33], and with the Andean Strategy for the Conservation and Sustainable Uses of Biological Diversity promoted by the Andean Community[34]. In particular, INCOPA is also consistent with the CIP`s purposes and objectives[35], and it is also consistent with the goal of the CBD to support transfer of technologies from developed countries such as Switzerland to developing countries such as Peru.

The initiatives are also within the framework of the national poverty alleviation strategy and other national initiatives supported by sectoral Government agencies, such as the Ministry of Agriculture's General Directorate of Agrarian Promotion (DGPA), and the INIA's policies to help disseminate native cultivars, especially native potatoes. The Biological Diversity National Strategy and Action Plan is an important framework for all three projects/programmes.

In line with its purpose, ECOBONA has identified and supported relevant policy/management processes and worked with them in the context of forest protection. These processes include the support to the Ampay National Sanctuary (the only Protected Area in Peru created to protect the endangered forest species known locally as Intimpa (*Podocarpus glomeratus*), fire management, native forest restoration and reforestation with native species, to cite just a few in Apurimac[36]. In Piura, these processes include the identification and implementation of Municipal and Regional Conservation Areas, as reported by informants during the focus group meeting in Piura (January 23rd, 2009). This is consistent with the programme objective of strengthening institutions at the national and local levels.

FOSEFOR did not have a manager in Peru and, based on the information provided by a number of government officers, members of the donor community and local senior foresters, it seems that FOSEFOR was not tightly linked operationally to national and regional policies and plans and actors. However, from a logical standpoint it was consistent with Peru's Forest

[31] Ministerrio de Agricultura. 2000. Guía técnica del plan sierra verde
[32] Personal communication by he Regional Coordianator of Ecobona
[33] Consejo Nacional del Ambiente. 2001. Perú: Estrategia Nacional sobre Diversidad Biológica
[34] The Strategy is available at http://www.comunidadandina.org/normativa/dec/anexoDEC523.pdf Site visited on February 20, 2009
[35] Personal communication by the Regionbal Coordinator of INCOPA
[36] This information was validated by interviewees during the meeting with meso-level players in Apurimac, held on February 6th, 2009, including representatives of the Apurimac Regional Government, the Ministry of Agriculture and the National Protected Areas Service

Strategy (ENF, by its Spanish acronym) since plantations are at the base of that strategy. Genetic improvement contributes to the ENF. By way of illustration of this contribution, consider the mean annual increase of Eucalyptus without genetic improvement, which is in the order of 7-10 m^3/year. According to one programme implementer (a seasoned forest seed entrepreneur), it could easily double (15-20 m^3/year) with the introduction of quality seeds. Finally, the programme has been coherent with endangered biodiversity components in the region. Native forest species are indeed endangered and are disappearing rapidly. If this habitat becomes extinct, so will the wildlife it hosts.

2.3 To the Environment

All three initiatives are in principle consistent with the three main objectives of the CBD: Conservation, sustainable uses of biodiversity components, and equitable sharing of benefits emerging from uses of genetic resources (now meant to be biodiversity resources). According to programme documents and reviews, FOSEFOR intended to conserve areas with selected seed-producing trees and PROBONA/ECOBONA has the protection of Andean forests as a main target. INCOPA could have helped conserve varieties of native potatoes.

With sustainable uses, linkages are more evident. According to programme documents, all of them use biodiversity components which are meant to be sustainable and provide farmers with permanent resource bases. The initiatives are also consistent with the goal of equitable sharing of benefits by helping farmers reach markets directly, avoiding intermediaries, and helping improve land productivity.

Based on a review of project/programme documents, the three initiatives also support other important CBD criteria, such as capacity building (at the individual, organisations/governments and systemic (laws, national and regional regulations) levels, and support transfer of technologies, education and increasing awareness, all of them important criteria for the implementation of the CBD. Finally, FOSEFOR, INCOPA and PROBONA/ECOBONA are consistent with the CBD goal of developed country Parties, such as Switzerland; helping implement the CBD in developing country Parties, such as Peru, by supporting the transfer of technologies and financial resources.

It was mentioned that project/programmes are in principle relevant to conservation and sustainable uses of biodiversity components. In practice, however, a review of project/programme documents shows that none of these three initiatives has outcomes addressing biodiversity conservation and sustainable uses or even the monitoring of threats to biodiversity. For instance, increasing conservation and sustainable uses of native potato diversity should be at the core of INCOPA; however, there is no evidence in the design that proponents even considered that its activities may impact the deterioration of biodiversity resources. There were no plans to develop a biodiversity baseline and monitoring system to verify that biodiversity is maintained in the targeted areas.

Moreover, the project seems not to have even considered the ecological sustainability of its interventions. For example, there was no plan for baselines and monitoring systems to verify that: i) potato cultivation is not being extended to steeper slopes at the expense of natural vegetation, ii) rotation cycles and soil fertility are maintained and, iii) productivity does not decrease through time. Consequently, current evidence does not allow asserting whether the project will actually be relevant for the conservation and sustainable uses of biodiversity.

FOSEFOR in turn was the first initiative in the Huaraz region to introduce forest seed management (including genetic improvement), as reported by all beneficiaries interviewed by the Evaluation Team and Programme implementers. Also, it was the first time that a private enterprise (Arborizaciones) was involved as an implementer in a natural resource management project. This created some difficulties, including initial lack of trust and

confidence in this firm. However, this approach secured a more direct relationship with the local beneficiaries. A governmental organisation such as PRONAMACHS would not have had the flexibility and rapidness required for timely and effective provision of technical assistance, including training, instruments and equipment.

Ecological sustainability was not directly considered by INCOPA and FOSEFOR as part of their design, but genetic improvement does certainly lead to ecological sustainability to the extent that it is done in natural environmental settings. There is unquestionably an element of ecological sustainability in those projects/programmes. The visibility of that element is clearer in the case of ECOBONA, dealing directly with the protection of Andean forest ecosystems.

2.4 To emerging SDC priorities

Some of the most relevant consequences of climate change for the highlands of Peru are likely to be an increase in the lower temperatures and an increase in the frequency of spells of high/low temperature extremes. Thus, in the long term, altitudinal distribution belts of native trees and cultivars may shift upwards and some high altitude varieties may not find suitable climates. If this were true, efforts to know more about the conservation and sustainable uses of the extreme high altitude varieties may be of future use to increase food security. Studies on the sustainable uses of tree and potato varieties most adapted to extreme weather conditions would also help improve management of Andean forest ecosystems and food security in a scenario of more frequent weather extremes.

FOSEFOR and ECOBONA partners at the meso level in Piura see adaptation to Climate Change and strengthening capacities as an aspect of the programme. Watershed protection is also considered as one of the important concerns of the programme.

In conclusion, the projects/programmes are relevant to poverty alleviation as a major development goal of Peru. ECOBONA is especially consistent with its most significant policies at the municipal/provincial level governments. The projects/programmes are innovative and attempt to bring to the main focus of attention linkages between poverty alleviation and sustainable natural resource uses. The projects/programmes are also potentially relevant to the CBD objectives of conservation and sustainable uses of components of biodiversity, but as will be seen, they lack the instruments to prove their actual impacts in that respect, and therefore their actual relevance on-the-ground on those issues.

3 Impacts

Impacts refer to overall, longer term effects of these programmes on beneficiaries, policies and institutions at the local, municipal/regional governments, and national government levels. In the cases under review, possible impacts on the environment/ biodiversity are also of high significance.

Impacts can be positive and negative and can be desired or unexpected. In general, impacts refer to changes when before and after project/programme situations are compared. These changes go beyond mere project/programme outputs or outcomes, such as having meetings and reaching agreements, publishing and officially approving documents, or preparing teaching manuals, and taking courses and trainings. Impacts rather refer to the more permanent behavioural changes that may occur in people, institutions, or biophysical changes in the environment as a consequence of the implementation of usually several outputs and outcomes.

For instance, increasing conservation and sustainable uses of native potato diversity should be at the core of INCOPA; however, there is no evidence in the design that proponents considered that its activities may change potato biodiversity. Moreover, there were no plans to develop biodiversity baselines and monitoring systems to verify that biodiversity is maintained in the targeted areas.

3.1 Impacts on local beneficiaries or the local area

For the most part, there are no systematic surveys of livelihoods improvements of beneficiaries. For instance, during the Mission´s field visit, the first interviews to produce baseline data of socio-economic nature were being processed by ECOBONA. In most cases, these improvements are mere perceptions and may differ among interviewees. The only exception to this rule is INCOPA's Impact Assessment Study[37] . As an example of possible differences in perceptions, according to some informants, one project implementer and one Ministry of Agriculture representative, income levels would have increased on average by around 15% as a result of INCOPA interventions, but INCOPA's Impact Assessment states that the value of sales has tripled in the area served by ADERS (Huánuco), from US$ 721 to US$ 2,058 per producer, in the period 2002 - 2007[38]. Regrettably, production costs have not been estimated; hence, the net income change remains unknown.

There are some additional perceptions of improvements in the livelihoods of some of the potential beneficiaries, at least for the two initiatives implemented and managed from Peru (INCOPA and ECOBONA). Collecting analogous data for FOSEFOR has not been possible because the programme had no implementing organisation or agency located in the country.

During the interview with CAPAC- Peru it was mentioned that since the beginning of the project (2001) profits from white potato production have decreased relative to profits from native potatoes. How these profits have been used and distributed is unknown. The main drivers behind INCOPA-related income improvements have been better access to markets and the provision of technical assistance and training with cultivation techniques, such as plant-to-plant distances and integrated pest management. Reportedly, productivity in the areas served by ADERS increased from 6 tonnes/ha to 12 tonnes/ha, and in Cayna (Huánuco) productivity has reached almost 15-18 tonnes/ha.
The other beneficiaries, people in Lima and other urban centres, seem to have also benefitted. At the beginning of the project people knew only about 4 to 5 varieties of native potatoes. Thanks to the project interventions in marketing and awareness about native potatoes, markets carry now 30 varieties with the potential of expanding to 57[39].

Secondary data used by a Ministry of Agriculture informant suggest that a potato-based diet may improve nutrition. CIP and Universidad del Centro (in Huancayo) are conducting studies to produce more conclusive data. There are some joint efforts currently between the Ministry of Agriculture and the Ministry of Health to implement a communication campaign to raise awareness of the nutritional value of potato-base diet in the context of addressing chronic malnutrition in Lima.

Focus group results indicate some INCOPA-related improvements in the quality of life of farmers, in the form of dietary changes, more livestock (see Picture 6.10, Annex 6), better housing, more investments in the more profitable Tumbay (yellow) potato, and in being able

[37] Proyecto INCOPA. 2008. Evaluación de Impacto de la intervención INCOPA/ADERS en Huánuco (2002 – 2007)
[38] Proyecto INCOPA. 2008. Evaluación de Impacto de la intervención INCOPA/ADERS en Huánuco (2002 – 2007), p. 42
[39] This information was provided by several interviewees from the Government of Peru and Project implementers. During the INCOPA field visits in Huanuco, Pasco and Puno, the Evaluation Team was able to see at least a dozen different varieties

to send their children to school (Picture 6.1, Annex 6). The Mission was informed that eight years ago poor peasants of the upper highlands by Cayna (Huánuco) were not able to send all their kids to school and this situation would have changed because of INCOPA. This information was corroborated by a project implementer, ADERS.

Another important benefit coming out of INCOPA has been the provision of technical assistance in planting (integrated pest management techniques, optimal plant-to-plant distances) and marketing (see picture 6.9, Annex 6), as well as some equipment to local peasants. This equipment includes: potato frying units, potato flour processing units, GPS units, photograph cameras, etc., in such areas as Huánuco and Pasco (reported by government officers and project implementers in those areas). According to a representative of a governmental partner institution, INCOPA has also supported farmers through the alliance formed with CIP and INIA in helping farmers recover after severe weather events. The alliance provides farmers with enough seeds for them to have substantial harvests after the first year. In the future, this may become a more permanent mechanism to assist small farmers.

Concomitant with an increased supply related to INCOPA, potato per capita consumption in Lima has increased from 55-60 Kg/year to 85-90 Kg/year in the last few years, as reported by representatives from implementing and partner organisations. This is reflected by the fact that 1,800 tonnes of potato are sold in Lima every day. With the supply increasing, the price has not plunged, which means that the demand is also increasing steadily. There is no information available to assess the share of this increase attributable to the project.

As for livelihood improvement linked to ECOBONA's interventions, in Apurimac fifty out of one thousand target households (5%) now have more efficient wood-burning stoves. According to a programme participant the main impact of this change is the reduction of fuel wood consumption per household, from around 5 Kg/family/day down to around 2 Kg. In turn, this lower fuel consumption would manifest as decreased pressures on the forests from benefitted families. The programme, however, has not attempted to measure these presumed reductions.
Support provided by the programme to the efficient stoves initiative has been partial and beneficiaries paid part of the costs. Programme staff indicated that about fifty replications have taken place so far in Apurimac, most of them funded by local people. ECOBONA introduced the know-how from Cusco by bringing an expert (Camayoq, in Quechua) who showed their value to local residents in Ccerabamba (Apurimac). This support was demanded by the Mesa Regional de Concertación para la Lucha contra la Pobreza. The programme is considering the replication of this experience in Piura.

Field visits and interviews with PROBONA-ECOBONA staff allowed the Evaluation Team to learn more about some instances of Canje Ecológico, a mechanism by which the programme supplies alternative livelihoods outside the forest to favour less use or more sustainable uses of forest resources. An example of these alternative activities reported by programme staff and implementers in Piura has been the planting of fallow areas with Achira. Achira tubers are used to make flour and bread and are promoted in an attempt to increase the income of the local population in exchange for less forest-degrading activities. Also in Piura, the programme supported another Canje Ecológico option: improved sugarcane yields and its transformation into brown sugar. Yields are increased through the use of organic fertilizers, improved plant varieties and management. Sugar cane yields would have increased by about 100% in Piura thanks to the introduction of these improved technologies, according to the programme staff. The Focus Group in Pacobamba and Ccerabamba (Apurimac) confirmed information earlier provided by programme staff that apiculture is being promoted as an alternative of Canje Ecológico in Apurímac. As a result, honey production in Apurimac has increased about 5-10 times thanks to the programme intervention, focused on a slight technological modification, namely, the use of more appropriate colony boxes. Pacobamba

community representatives indicated that women are progressively more interested in this business, which they can run without leaving their houses.

Other Canje Ecológico supported by the programme is the ecotourism project in Pacobamba, to be developed at the request of the local dwellers. In Pacobamba, ECOBONA also supports the planting of fruit trees. Although the Evaluation Team could not visit the Chinchay forest (out of Ccerabamba), it was possible to visit that community and gather information directly from the beneficiaries about the ecotourism and planting of fruit trees activities. In Piura the Evaluation Team was informed by programme staff, local partners, beneficiaries and implementers[40] that Tara (*Caesalpinia spinosa*) plantations are being promoted, as well as the use of Achira flour to prepare bread. In the Cuyas Cuchayo community, visited by the Evaluation Team, nurseries are one of the most important perceived contributions of the project because communities feel these nurseries will produce seedlings of economically important plants.

According to the Focus Group held with community members on February 6th, since 2007 the Ccerabamba community[41] participates, in protection activities near the Chinchay Forests. They are engaged in training on the causes and consequences of forest fires, benefits of conserving forest cover, and reforestation.

In addition to helping with Canje Ecológico initiatives outside the forest, ECOBONA is also assisting the local communities in collecting medicinal plants from the forests and helping them manage and sell them. The real sustainability of these practices and the net benefits to farmers are also unknown. Sustainability was claimed by local interviewees, but no real proof could be provided.

One of FOSEFOR's impacts on livelihood is related to the promotion of Tara (*Caesalpinia spinosa*), used in the tanning industry. One of the programme implementers, the owner of a firm associated with the programme informed the Mission that seed demand was mostly for Tara (60%) and Aliso (*Alnus glutinosa* - 20%). The total area of land planted with Tara by this firm during the period 2003-2005 was 2,500 ha, of which about 1,000 ha would be the result of FOSEFOR support. In this case, about 85 farmer families benefited from FOSEFOR interventions, basically in the form of seed collection techniques and management. Since the programme was not demand-driven it did not consider the production chain. Consequently, benefits to local people were sporadic and marginal.

Some commercial success was reached thanks to FOSEFOR in the case of Eucalyptus and Tara (*Cesalpinia spinosa*); and a little bit with Capulí (*Prunos serotina*), although these "achievements" took place well after the end of the programme. In the case of Tara, Pampas Grande (in Ancash) beneficiaries have focused their efforts on that species since their traditional crops were not feasible due to the lack of rain in 2008. Coincidentally, Tara price rocketed to S/. 3.00/kg in that year (as the report is being drafted, early March 2009, the price is down to S/. 2.00/Kg). Some families have produced and sold as much as 30 tonnes. The minimum production has been half a tonne for the year. With the exception of Tara in Pampas Grande, none of the other native tree species has reported significant impacts on the way of life of local rural populations. According to a former local programme implementer, the increased income from selling tara seeds has been used to buy foodstuff and clothes, and for education purposes. One beneficiary of Pampas Grande who had produced 30 tonnes, has invested S/. 5,000 in a property in Huaraz, and S/. 3,000 in agriculture equipment, as reported by a former programme implementer in Huaraz.

[40] Focus Group held on January 22nd, 2009 at Universidad de Piura
[41] Its actual political status is Centro Poblado Menor (Minor Population Centre)

3.2 Equity and gender issues

Equity issues were incorporated from their inception to both INCOPA and ECOBONA, whereas in the case of FOSEFOR this was not an issue, as pointed out by one former programme implementer in Huaraz. In ECOBONA, according to programme management, gender is only now being introduced in a progressive manner, while attempting to respect local traditions. From speaking to various stakeholders in ECOBONA and INCOPA, reviewers received the impression that the emphasis on gender has been largely because of SDC, and that implementers are very cautious in avoiding the potentially negative reactions coming out of trespassing local traditions.

For these types of reasons, INCOPA also paid limited attention to gender issues and it is only during the design of Phase III (2007) that gender issues were more rigorously addressed at the request of SDC. Phase Document III has incorporated gender issues in its logical framework, but it is too early to say anything about potential impacts.

In talking to farmers and implementers of all three projects/programmes, reviewers received the impression that gender roles in the agricultural practices of the target areas are very entrenched in local culture, and that changing them would be a major enterprise and not merely a side issue in a poverty alleviation project. For example, the Mission could see that women's role is in potato selection and seed conservation/storing, while men take the lead in harvest and commercialisation (see Picture 6.12, Annex 6). Changing these patterns would be major effort that would have to involve early education and social roles in their societies, well beyond what a small project like INCOPA could do.

In the case of FOSEFOR programme implementers were reminded on a permanent basis by FOSEFOR Management in Quito (Alfredo Carrasco and Lenin Prado) to promote equitable participation of men and women.

In addition, all three projects/programmes target only small fractions of the populations in these areas and it would be extremely difficult for these targeted populations to show any cultural changes when the majority of the populations still keep their traditions. For all these reasons, reviewers do not see that these projects/programmes are likely to have any impacts in the roles of genders in agricultural practices in the project/programmes areas.

3.3 Impacts on Institutions, Policies and Political Frameworks

The three projects/programmes evaluated seem to have had effects in terms of promoting regulations, participation and institutional strengthening. How these mechanisms and outputs reflect on behavioural changes is not always clear in the absence of adequate monitoring data.

Institutional improvements driven by INCOPA are based on the PCPA. INCOPA produced guidelines and manuals for PCPA, such as the user's guide and the trainer's guide[42]. An indication of the PCPA success is that it has been replicated and adapted by other organisations. One of them, according to INCOPA staff, is a well-respected NGO by the name of Soluciones Prácticas (ITDG). Another INCOPA trigger of institutional improvements, according to Regional INCOPA management, is the so-called Horizontal Assessment, a tool allowing sharing of knowledge and experiences among similar entities. A user's guide is already published with the trainer's guide still in progress.

[42] Proyecto INCOPA, 2008. Proyecto Incopa: Generando Innovaciones para el Desarrollo Competitivo de la Papa en el Perú. Synthesis document for the Creatividad Empresarial Competition, 2008

All key partners in the INCOPA project acknowledged during the interviews that they had benefited from project interventions. These partners include the Ministry of Agriculture (MINAG), ADERS, CAPAC-PERU, and Tunta Producers Association. INIA is both a strategic and an operational partner. MINAG representatives told the Evaluation Team that they were able to meet their goals and targets under the National Potato Strategy thanks to the support of INCOPA. Actually, it was at the request of MINAG that CIP broadened its focus and its area of intervention to cover 9 out of the 11 regions prioritised by the Ministry of Agriculture in its National Potato Strategy, as reported by a source from within the Ministry interviewed by the Evaluation Team.

A direct result of INCOPA's intervention was the creation of CAPAC-PERU. CAPAC is a platform for the main actors engaged in native potato production and commercialisation[43]. ADERS and CAPAC-PERU are now stronger institutionally than they were 5-6 years ago, when the project started. ADERS initially covered Huánuco only, but now they have potato projects in Cajamarca, Huancavelica, Pasco, Ica and Ancash, and have managed to leverage funds from other sources, including the donor community (e.g., the EU), the Peruvian Government (FondoEmpleo), and private firms with Corporate Social Responsibility (such as Millpo Mining Company)[44]. CAPAC-PERU, in turn, has leveraged resources from the US Government (PL-480), from Swiss Contact and has presented a number of initiatives, where they are the main actor and CIP is a sub-grantee. Finally, according to farmers and local authorities, the project promoted the Tunta and Chuño Committee in Puno, an entity including INIA, the Ministry of Production (PRODUCE), INRENA, NGO's and the Producers Committee. (Interviewed in Puno on January 19, 2009).

INCOPA prioritised its policy interventions at the national level. INCOPA fostered the approval of Law 29088[45] to improve competitiveness in the potato sector, introducing changes in the packaging, with sacks now limited to only 50 Kg rather than 120Kg, as used to be the accepted practice. This change has some major competitiveness-related implications, including reduced loss of the product during transportation, easier selection and classification, fewer injuries to porters, etc. This law has to be regulated before it becomes effective. Complementarily, another Law (25047) has been approved addressing social benefits and the livelihood of land porters and manual transport workers, working in the potato sector[46].

INCOPA helped create the Peruvian Native Potato National Registry on July 3, 2008, by the Ministry of Agriculture. Its purpose is researching genetic, morphologic, and anatomic indicators of the potatoes. This regulation will allow the commercialisation not only of potatoes but also their "seeds", with likely significant economic impacts on the national snacks industry. This Registry will be managed by INIA. According to regional project management, 61 varieties (grouped in 8 species) have been registered so far.

A number of activities, decisions and in-depth analysis reports or documents have been promoted or sponsored by INCOPA. According to a Ministry of Agriculture Officer, for example, the project assisted with the preparation of potato consumer´s profile and the Potato Sectoral Strategic Vision, governing actions geared towards the promotion and sound management of the resource. It also helped the creation of the National Potato Day (starting May 30, 2005), as an effort to enhance general public awareness about the biodiversity,

[43] Gonzales-Zúñiga, Alberto. 2003. Evaluación Externa del Proyecto: Promoción de la producción competitiva de la papa peruana para responder a nuevas oportunidades del Mercado, INCOPA, financiado por COSUDE. Informe de Consultoría. Lima, July 21, 2003

[44] Information provided by Project staff during a visit to its office in Pasco, January 17, 2009

[45] An annotated summary of the Law (in Spanish) passed on September is available at: http://redepapa.org/2009/09/06/hello-world/.Site visited on March 3, 2009

[46] The Regulation of this is Law must be produced. A Commission was created in June 2008 for that purpose. See: http://www.ila.org.pe/publicaciones/docs/rm_183_2008_pcm.pdf. Site visited on March 3, 2009

gastronomic and economic importance of Peruvian potato. A related effort, reported by project staff, is the Declaration of year 2008 as the International Potato Year in order to increase global awareness.

As pointed out by several interviewees, including some government officers, INCOPA's political incidence is recent. It is only through the success of the INCOPA's Production Chain approach that the Project starts having a political incidence, at the end of Phase II. Although INIA has been a close partner to INCOPA, it has been the DGPA that played the stronger and more active role as a partner. The institution most strengthened by INCOPA has been DGPA in terms of the potato production chains. INCOPA has facilitated the attainment of DGPA's intended results and targets in the framework of the Potato Strategic Plan. There seems to be still some room for strengthening INCOPA's political incidence, especially in terms of public awareness about the significance of potato.

INCOPA also collaborated with some municipalities, such as the Municipality of Tayacaja (Huancavelica), in disseminating INCOPA initiatives and experiences.

According to interviewees from the Government and the programme implementer, ECOBONA worked with small farmers to empower them to negotiate in the Local Consensus-building Table to Fight Poverty and supported capacity building of local leaders and strengthened organisations, provided technology, and helped develop a vision for native Andean forests in Peru.

As a result of the mutual interest of a number of communities and ECOBONA, the Saywite-Choquequirao-Ampay Commonwealth was formed. It was initially composed of three districts: Curahuasi, Cachora, and Huanipaca. Tamburco and Pacobamba joined later[47]. The Commonwealth's purpose is to align efforts for larger projects or initiatives, in this case the promotion of ecotourism. According to government officials, there are other common interests, such as integrated management of hydrological resources.

ECOBONA´s end beneficiaries (local communities) demanded help from municipalities for afforestation, planting fruit trees and Andean cultivars, both in Piura and Apurimac. In an effort to help them, the programme supported the preparation of a policy incidence plan and supported the creation and equipment of a land use planning office in the Ayabaca Municipality (Piura) and an Environmental Committee for the region. The programme has also deployed efforts to improve technology in the planting of native and exotic species and in their marketing[48].

In Apurimac, the bulk of the ECOBONA activities have been focused on the work with local authorities. The programme sponsored the participation of the Pacobamba Mayor in two internships. In 2007, the Mayor participated in an Intercooperation workshop on Local Development held in Honduras, and in 2008 he was selected for an annual planning workshop that took place in Quito[49]. ECOBONA is thus helping the Mayor comply with his commitments as a candidate regarding the conservation and sustainable use of forest resources.

[47] These communities/districts have a total of 40,754 inhabitants. Source of information: Project M&E team
[48] Source of information: Project M&E team
[49] Source of information: Project staff

The main indication of ECOBONA's political incidence in Pacobamba is given by the passing/approval of a number of regulations in the form of by-laws to protect sources of water, native forests and wildlife, and to sanction violators[50]. According to staff ECOBONA is now recognised as one of the technical backstops of the Municipality.
The Andahuaylas[51] Municipal Environmental Commission has replicated the idea set forth by ECOBONA regarding the protection of native forests. This shows that the political influence of the programme has exceeded its initial area of influence. The initiative also assists the Regional Government of Apurimac in the implementation of the Regional Forest Fire Management System. This type of assistance is in the form of joint organisation of presentations, training sessions, talks, meeting and other activities aimed at raising awareness about the problem. The Ecological-Economic Zoning of Apurimac is also being supported by ECOBONA[52].

With the assistance and support from ECOBONA, the Municipality of Pacobamba has been the first to take actions to protect local forests, including the Chinchay Forest (of some 1,000 ha), introducing by-laws, fines and sanctions in an effort to enforce forest/natural resources protection regulations. This sensitisation, as reported during the meso level Focus Group with the Municipality of Pacobamba, has been replicated at the local level in several communities.

Before 2007 there was frequent poaching in the local forests, especially in the Chinchay Forest. Poachers used to hunt deer, puma, masked bear, Andean fox, etc. With the help of ECOBONA there is now a communal regulation in Ccerabamba sanctioning forest poachers. The programme helped communal authorities prepare themselves to enforce the law by forming and equipping members of the Communal Citizen Security Corps, now playing an important role in reducing poaching[53].

As part of FOSEFOR interventions, Universidad de Piura (a local private University) was strengthened in terms of research lines and technical capacities. The University worked as an associate to Centro IDEAS (a local NGO) and made agreements with municipalities to implement the programme. The University basically provided training in seed management to local promoters and technicians. Four years after programme completion, communities reportedly still maintain seed producing areas[54].

ECOBONA and its predecessors FOSEFOR and PROBONA have increased the interest in Andean forests compared with Amazonian forests. ECOBONA catalysed the participatory preparation of the "National Strategy for Andean Ecosystems" still to be approved by the

[50] The Evaluation Team did not have access to these by-laws; however, the following were specifically mentioned by informants from the Municipality of Pacobamba during the Focus Group held on February 6, 2009: i) Headwater Protection By-law; ii) Native Forest Fires Management Bylaw; iii) Wildlife poaching By-law; iv) Municipal Resolution declaring the Environment a Local Priority. Municipal Resolutions are not enforceable as are by-laws

[51] Andahuaylas is the second city (and province) in political and economic importance in Apurimac

[52] All the information in this paragraph was gathered during the meso-level Focus Group held on February 6, 2009, in Abancay, Apurimac's Capital City

[53] All the information in this paragraph was gathered during the micro-level Focus Group held on February 6, 2009, in the Community of Ccerabamba

[54] All the information in this paragraph was gathered during the meso-level Focus Group held on January 22, 2009, at Universidad de Piura with current partners/implementers of ECOBONA and former partners/ implementers of PROBONA and FOSEFOR

Ministry of Environment[55]. The Strategy´s goal is to recover and optimise the productive capacity of Andean ecosystems, with the following specific objectives:

- To conserve and use soils in a sustainable manner according to their natural productive capacity,
- To increase citizen awareness about fragile mountainous ecosystems and the need to adapt to climate change,
- To reform public administration for an efficient and competitive social management of Andean ecosystems and their natural resources.

3.4 Impacts on the Environment

The three projects/programmes in Peru strengthened individual and government capacities for environmental and biodiversity management and helped produce policies, regulations, and management plans. But do they have an impact on biodiversity?

INCOPA´s purpose is to promote the use of native potatoes rather than to promote germplasm conservation. The Mission found contradictory opinions regarding trends in native potato diversity. Some people claim that due to changes in consumption habits in the highlands, it is decreasing; others claim it is not changing. So far, there are no systematic surveys showing changes one way or the other. CIP's Genetic Management Department will eventually evaluate whether there has been any impact in terms of cultivated species. During the interviews, it was mentioned that a Dutch doctoral student working in one of the project sites seems to have validated the findings by renowned Professor Carlos Ochoa's, from the National Agrarian University, La Molina (UNALM, by its Spanish acronym), that potato is not affected by significant genetic erosion. But until a systematic survey is taken, it will not be known for sure whether there is a "background" decrease or maintenance of potato diversity.

Independently of this background trend, from the review of the documentation and the interviews conducted, it is not possible to confirm with certainty any attribution to INCOPA, of positive or negative impacts on the distribution and abundance of potatoes. By changing the proportion in which varieties are planted, farmers may be changing potato diversity. Originally, in a near subsistence economy each variety was planted according to family needs. With the introduction of markets, proportions changed and now respond to consumers needs. Now, a typical composition of the potato production is 70% for self-consumption and 30% for the market. One of the beneficiaries of the INCOPA project, as reported by one source from a Governmental agency, produced 5% for self-consumption and 95% for the market. This changed composition may become a threat in terms of neglect of less marketable potato varieties. Additionally, the Mission heard from government sources that the fallow cycle may be altered in order to respond to increased market demand. These findings may suggest potato diversity may be decreasingbut the project is not evaluating this hypothesis. Nevertheless, as a mechanism to counterbalance this eventual pressure, INCOPA is looking at how to increase the value of non-commercial varieties.

In talking to farmers, the Mission discovered opinions on both sides. Some people claimed that potato diversity may be maintained by the project, while others claim it may be decreasing. At any rate, this did not sound as being a very relevant issue to them.

Project management in Lima mentioned that INCOPA has also promoted Integrated Pest Management rather than the use of chemical pesticides, although so far this value has not been internalised on a 100% basis by beneficiaries. The environmental significance of this practice has not been evaluated and will not be evaluated by the project.

[55] A síntesis of this Strategy, led by ECOBONA, was made available to the Evaluation Team by Project Management

FOSEFOR was the first instance of production of native seeds and seedlings in the native mountainous forests of Piura. According to a participating entity, the species included:

- Algarrobo (*Prosopis palida*), known in English as carob, which was used for wood and as the source of pods, of high nutritional values,
- Zapote (*Capparis scabrida*), used basically for wood,
- Huataco (*Loxopterygium Huasango*), used for wood, and highly valued for flooring,
- Palo Santo, (*Bursera graveolens*) used for wood and its resin, and highly valued for flooring,
- Almendro (*Geoffreya striata*), used for wood,
- Pasayo (*Eriotheca ruizii*), used for wood.

FOSEFOR did improve access of beneficiaries to flora by increasing the supply of quality seeds. FOSEFOR supported commercial plantations for commercial purposes as well as for protection. An example of the latter is Quishuar (*Buddleja incana*) and Queñua (*Polylepis spp*), excellent for hill protection. This type of work was done in such areas as Pampas Grande, specifically in the area called Curiash (1,800 – 2,200 masl), as reported by one former project implementer in Ancash. However, FOSEFOR did not attempt to measure its impacts on these species and the Mission found that Focus Group participants were not able provide clear evidence of such impacts.

No change in forest cover has taken place as a result of FOSEFOR mainly because its focus was not on forest cover but on the production of quality seeds. There has been an increase in the number of native tree species thanks to project interventions. All beneficiaries interviewed indicated that FOSEFOR's greatest achievement was the increased awareness about the value of native tree species. There has been an effort to increase the knowledge about the use of tree species but not necessarily the number of species or its abundance (in terms of forest cover of biomass volume, which were not even monitored by the programme as it did not have any objective or result related to those indicators).

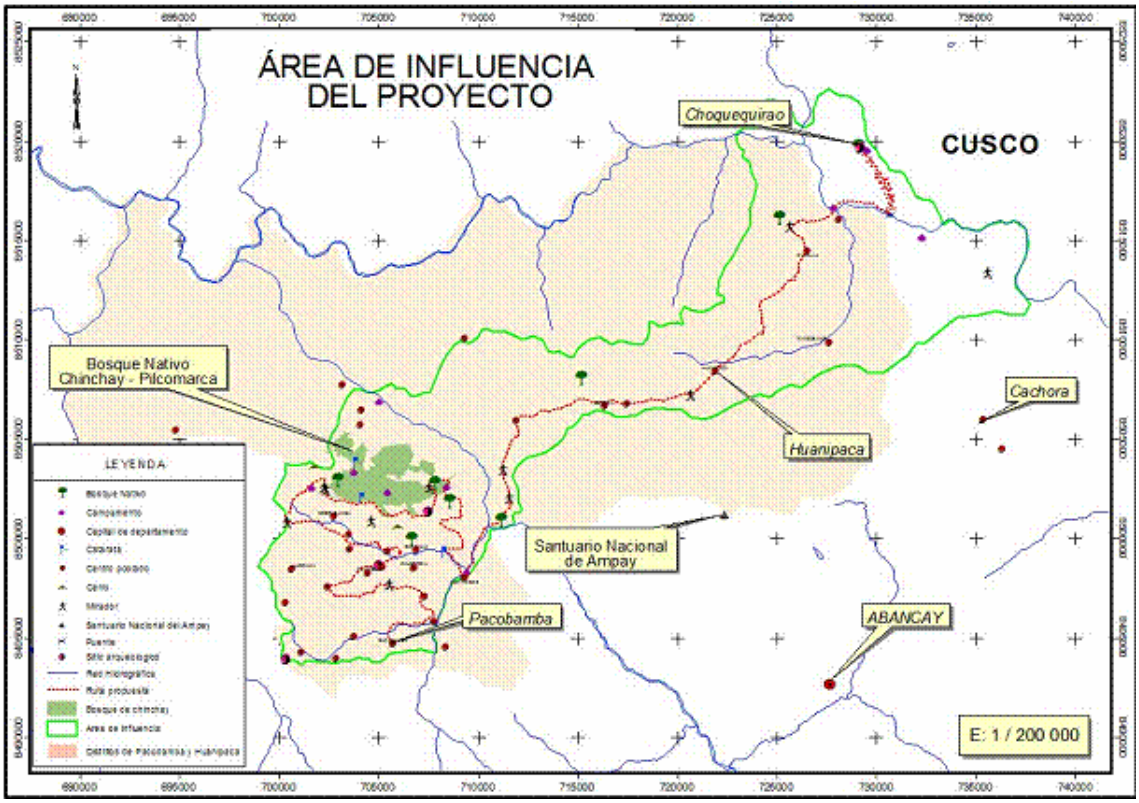
ECOBONA is supporting some conservation initiatives. For example, it supports the management of Intimpa (*Podocarpus glomeratus*) forests in the Ampay National Sanctuary (Apurimac). ECOBONA identified and supported relevant policy/management processes in the context of forest protection, such as the prevention of fires, native forest restoration and reforestation with native species. The newly created SERNANP has been brought on board in view of its role as the Administrator of the Ampay National Sanctuary[56]. In Piura, these processes include the identification of Municipal and Regional Conservation Areas[57].

According to programme management, ECOBONA is also supporting the creation of a private conservation area in Apurimac composed of the Chinchay and Pilcomarca Forests (some 2,500 ha) and a buffer zone of approximately 8,000 ha managed by small farmers and private land owners. The proposal will be discussed and presented to the Local Consensus-building Table to Fight Poverty and the owners of the area where the forest is located (Pacobamba). It is likely that this area will become part of Conservation International´s Vilcabamba-Amboro Biological Corridor. The programme is preparing a tourist guide and sensitised the Municipality of Ayabaca, in Piura, about the importance of forest conservation.

[56] Reported during the meso-level Focus Group held on February 6, 2009, in Abancay, Apurimac's Capital City

[57] Information provided by Project staff and cross-checked during the the meso-level Focus Group held on January 22, 2009, at Universidad de Piura with current partners/implementers of ECOBONA and former partners/implementers of PROBONA and FOSEFOR

Map of the Proposed Area of Ecotourism Activities in Apurimac, ECOBONA



The conservation value of these Yungas is very high as demonstrated by the level of importance given to it by large international NGO's operating in the country such as The World Wildlife Fund[58], and Conservation International[59].

ECOBONA is helping local governments with their environmental obligations. During the Focus Group with the Cuyas Cuchayo Community (Ayabaca), community members informed that they plants fruit trees, and some native, including Aliso, and carry out agroforestry in the periphery of the forests. They expressed interest in capacity building for more economic/productive projects, soil conservation (and thus conserve the forests), irrigation, and other economic alternatives that would not force them to cut firewood to sell in Ayabaca. According to local community members, the pressure on local forest for firewood comes from urban demand, not from self consumption. Lack of land tenure clarity is a major perceived problem for conservation and they expressed their need for help.

Programme staff informed the Mission that ECOBONA carried out a rapid assessment of flora and fauna in the Chinchay Forest, Apurimac, which is scheduled to be available during 2010. This effort will be a valuable tool to monitor the integrity of biodiversity in the area and suggest protection and conservation measures.

Likewise, the programme has supported the preparation of Forest Management Plans in Pacobamba, at a general level, and one specific plan for the Chinchay Forest[60]. These plans may help secure a formal authorisation for some type of economic use of the forest, either for

[58] Teddy Peñaherrera, WWF/Peru's Conservation Director, personal communication, January 15, 2009
[59] Yungas is listed as Tropical Andes under CI's Hotspots. Site visted on February 20, 2009, see: http://www.biodiversityhotspots.org/xp/Hotspots/hotspots_by_region/Pages/default.aspx
[60] Participatory Forest Management Plans (FMP's) have been undertaken in Apurimac with ECOBONA support in the following areas: FMP for the Saywite - Choquequirao – Ampay Commonwealth, FMP of Huanipaca Native Forest, FMP of Pacobamba, FMP of Chinchay Native Forest

timber or non-consumptive uses as authorised by Peru's Forest Authority (Ministry of Agriculture's Forestry and Wildlife General Directorate – DGFF).

The Focus Group with the Ccerabamba Community (held on February 6th, 2009) confirmed that ECOBONA also provided technical assistance and resources for reforestation with Tara and the construction of communal nurseries to produce native and fruit trees, the latter being of high appreciation because of their potential economic benefits. Some of the fruit trees grown in the Apurimac nurseries include apple, plum and peach. Training activities have also covered the protection of water sources in that region, which has become a severe concern due to its scarcity, compared to 20-30 years ago. Local people, according to the Focus Group, believe that water resource scarcity is due to deforestation, which is caused basically by the increased demand of growing population lacking any awareness about the importance of forest cover.

ECOBONA also catalysed the creation of municipal nurseries with native (20-30%) and introduced (70-80%) tree species in coalition with AgroRural (Peru's National Watershed and Soil Protection Programme) and local municipalities. It has also contributed to strengthening Tara (*Caesalpinia spinosa*) harvest and post harvest capacities, as reported by programme staff.

FOSEFOR`s objective was the identification of seed-producing areas, varying between 3 and 5 ha each, although some go as high as 2,000 ha. The latter is the case of the Mangamanguilla Agrarian Association (MAA), visited on January 24th, 2009, which was granted an extension of 2,061 ha for the conservation of the seed trees. During the Focus Group with MAA members, they informed that some 5,000 ha remain to be formally granted to the association for the same purpose, but land tenure and organisational issues need to be solved first. Four hectares out of the 2,061 granted to the community do host the seed trees of Palo Santo (*Bursera graveolens*) and Huataco (*Loxopterygium Huasango*) species. In these four hectares there are 263 huataco individuals and some 80 Palo Santo individuals, according to local MAA members. Before the project the site was subject to intensive extraction of wood species, especially for flooring. Even when the project had already started, the population felt the need to harvest some carob trees for fuel wood to fund their agricultural activities in the buffer zone of the "protected" forest, as highlighted during the Focus Group.

One important unintended contribution of the programme, identified during the Focus Group with MAA, is that former local implementers, in coalition with local authorities, are now trying to establish conservation areas on some of the programme sites to be used in ecotourism.

The list of measures with potential impacts on biodiversity is significant. However, projects/programmes are not measuring biodiversity or changes of threats to it. Consequently, the projects/programmes will not be able to assess their impacts on biodiversity conservation or sustainable uses in a systematic fashion. As part of its monitoring programme ECOBONA measured in 2007 and will measure forest cover again in 2009. But forest cover is not the same as forest biodiversity. Forest cover may remain the same, but many valuable species, believed to be under sustainable uses may have disappeared.

In talking to local people and local governments, the Mission found there is little interest in biodiversity. People repeatedly expressed that the importance of maintaining forests was in their role in conserving their water resources, and they seem to be uninterested in how much biological diversity remains. Moreover, they were vague when asked about maintaining forest species or the significance of potato diversity. Although from the introductory statements, they knew about the interest of the Mission in biodiversity, they asked for more income-generating activities rather than measures about biodiversity management. It seems that if

SDC projects/programmes will eventually target biodiversity resources, more awareness activities about the significance of biodiversity would be needed and later the implications of this training measured.

In conclusion, the projects/programmes produced many activities and outputs, none of which guarantees that biodiversity or the environment will be better managed. They may help, but without additional actions, it is doubtful they will contribute to conservation and sustainable uses of biodiversity. Management plans, trainings, declarations, etc. are all outputs, but not measures of impacts on biodiversity management. There are many examples in the biodiversity literature showing how building capacities is not enough. There are many barriers between these capacities and actual protection, such as political conflicts and "lack of political will", lack of funds, and in some cases even corruption. Therefore, the outputs and outcomes produced by the three projects/programmes are at most stepping stones towards biodiversity management. The projects/programmes do not have biodiversity baselines, indicators and monitoring systems that will allow the detection of changes in biodiversity or threats to it. Moreover, the projects/programmes did not effectively raise biodiversity issues with farmers. They do not know about its significance and trends. Their interest is rather in food security and income-generating activities.

Lesson learned: Projects and programmes need to be designed with appropriate baselines, indicators and monitoring systems to detect biophysical changes and changes in the behaviour of institutions and people towards biodiversity.

4 Effectiveness

The most important goal of SDC projects/programmes is poverty alleviation in rural areas of the Andes. What has been the role of biodiversity -related activities in the effectiveness of these projects/programmes? The contribution of biodiversity activities to the effectiveness of the projects/programmes tends to be marginal. This should not be surprising since all three projects/programmes were designed with a poverty-alleviation objective in mind.

To the extent that FOSEFOR became restricted to native species, its effectiveness in reducing poverty was probably diminished. If they had focused on fast growing species, known to have higher demand, farmers would probably have received more benefits. From this perspective, restriction to native biodiversity probably hindered the effectiveness of FOSEFOR. If the reason for FOSEFOR had been uses of native biodiversity, rather than poverty alleviation the conclusion would have been different. INCOPA may have been similar. If it had worked only with white and yellow potatoes, as was the intention at the beginning, its success in alleviating poverty may have been more significant. Working with coloured potatoes may have reduced its poverty-alleviation effect.

The case of PROBONA/ECOBONA is different. Here, both biodiversity and poverty alleviation are at the centre of attention. PROBONA/ECOBONA was born in an alliance between SDC and the International Union for the Conservation of Nature (IUCN), both headquartered in Switzerland. The intention was to reduce poverty in and around Andean forests **and** protect these Andean forests by helping with their conservation and sustainable uses. Here effectiveness cannot be considered without biodiversity management. Effectiveness is in fact inextricably linked to the uses and conservation of biodiversity. Paradoxically, ECOBONA's monitoring and evaluation system does not have adequate biophysical indicators/targets to measure biodiversity impacts.

5 Sustainability

Sustainability refers to the permanence of project/programme outcomes and impacts after funding from SDC ends. Project/programme activities are not expected to continue, but the project/programme has hopefully triggered processes that will continue after its financial contribution from SDC ends.

From a political, economic and social perspective INCOPA and PROBONA/ECOBONA show some sustainability features. From an ecological/environmental perspective sustainability is not being tested.

FOSEFOR was based on the assumption that forest stands of small farmers would be maintained because of the additional income they would gain from selling quality seeds. Critical for the sustainability of FOSEFOR was the vigour of markets for native seeds. It was the markets that were going to maintain the whole chain of production of quality seeds and their production areas. In principle, farmers would continue protecting stands and trees to continue receiving income from periodical sales. In practice, however, according to locals, sales and gains coming from quality native seeds proved to be marginal and sporadic.

The idea of quality seed is born in the minds of key forest players in the FOSEFOR regions visited (Piura and Ancash) but there are no financial resources to promote and implement it more aggressively. Forest seed tenders by the Government (principal buyer of forest seeds) do mention the need for the seed supply to demonstrate its origin and quality, as called for the Forest Seed Law and Regulation. However, the law is never enforced and the origin and quality are never checked.

Fortunately, FOSEFOR decided to work with existing centres and these are largely active. They existed before the programme and continue existing now although commercialising mostly fast growing exotic species. The technology to collect and grow native seeds and seedlings is in their hands and hopefully will be available if demand for native seeds ever rises.

Conservation and sustainable use of resources are values shared by local, regional and national players, but more efforts are needed in the dissemination/communication of benefits of native tree species. Seventy members of Forest Seed Collection Units in Ancash (that eventually reduced to one-to-three per community, making a total of 15 to 20 all in all) are too few to make an impact. Likewise, the passing of the Forest Seed Law and Regulation has been a sign of good will but with limited or no political commitment at all. As pointed out above, this law is not even complied with (let alone enforced) by the Government itself (the principal forest seed buyer).

INCOPA seems especially attractive from a sustainability perspective. Interviews and focus groups point out that that highland farmers and consumers in Lima enjoy improved livelihoods due to the success of the production chains. Farmers and retailers of the native varieties are testing new approaches and verifying their financial viability. INCOPA goals are consistent with current and most probably with future policies at national, provincial and local levels. The intermediate associates and local communities are strengthened and are also very likely to continue in what seems to be a win-win arrangement. Significantly, as pointed out by project Management, for every dollar brought in by SDC, INCOPA has leveraged three and they are still on the search for additional funding. Presently, New Zealand has interest in supporting a follow up phase of the project.

Project management informed the Mission that local institutional partners participating in INCOPA have been strengthened as have local NGO's, including ADERS and Fomento de la

Vida (FOVIDA). The latter have increased their capacity significantly for project formulation and management.

A measure of potential sustainability is funding raised by the project. The more funding leveraged and the more project ideas are replicated, the more likely the effort will be sustainable. The following table illustrates the leverage of funds by one of INCOPA's partners, ADERS. The table shows how the project is being replicated, funded by donors of varied nature, from mining companies with Corporate Social Responsibility, to international donors and even the Peruvian Government.

Funds leveraged by ADERS, INCOPA partner		
Region	**Funding source/year**	**Amount of funding (USD)**
Cajamarca	Minera Yanacocha/2004	80,000
	Minera Yanacocha/2006	70,000
Cajamarca	European Union	133,333
Huancavelica	FondoEmpleo – three years	233,333
Pasco	Minera Millpo – three years (semilleros de papa)	154,664
Pasco	Minera Millpo – three years (producción de papa)	200,000
Pasco	Minera Millpo and Yanacancha Munivipality – ProCUY (Guinea pig) – replicate the idea of production chains	214,308
Ica	FondoEmpleo	623,333
Ica	Minera Millpo (Potato & Tara – irrigation modules)	166,667
Huaraz	Fondo Minero Antamina (potato)	220,333
Source: ADERS, Project staff		

However, there are some concerns regarding the sustainability of INCOPA. There is still a gap in terms of leadership if the project were to end tomorrow. In part this is so because whereas Bolivia and Ecuador have government institutions dealing with potatoes, Peru does not. In Peru it is CIP that plays that role, but CIP is an international centre, not an institution of the Peruvian Government. At least a couple of interviewees, one from a Governmental agency, the other a former Government officer, shared the opinion that this raises an issue of institutional sustainability of the project in Peru. Actually, according to a source that asked to remain anonymous, INCOPA as a project keeps a low profile and it is CIP that plays the lead role in meetings. INIA would have to be the natural follow up leader, but for the moment it is not in a position to play that role.

INCOPA´s design did not consider the problem of farmers passing from a subsistence economy to a market economy, and this may have severe impacts if the project were to be replicated at a massive scale in the upper Peruvian highlands not only in ecological terms, but also form a socio-economic point of view. These potential impacts need to be controlled and monitored if the project is to scale up. Moreover, as the income of farmers increases, it may well be that their ambitions also increase and some of the traditional conservation-oriented practices are lost which could lead to genetic erosion rendering the effort no longer ecologically sustainable. In this case the social and financial sustainability of the production chains would be in jeopardy.

The Focus Groups conducted at the meso level and the intensive exchange with Project staff, allows the Evaluation Team to assert that in the case of ECOBONA, the programme's political incidence seems to have been effective at least in Pacobamba in gaining support

and environmental citizenry to stop and, eventually revert, the high rate of degradation of the local forests. The most important factor explaining this success may have been the adequate selection of partners. By targeting the highest level of authority in the sensitisation activities in Pacobamba, the project managed to bring in the Mayor as a committed partner. The effectiveness of this strategy has been certainly facilitated by the fact that the Mayor was seriously interested in the sound management of the environment and natural resources.

In an effort to increase sustainability in Apurimac, ECOBONA has supported environmental education and awareness activities with school students. These activities were customised to respond to the local needs and reality, and dealt with apiculture, forest fires, environmental protection (e.g., headwaters protection), and even the Grand Marathon, covering a wide section of the Inca Trail, highly publicised and also attended in its first edition (the second edition is scheduled for September 2009)[61].

There is also evidence of lack of awareness or understanding about environmental matters on the part of beneficiaries, as detected during the Focus Group with Cuyas Cuchayo in Ayabaca (Piura). That community was initially not interested in the project and they became interested only when they were informed about linkages between forest cover and water supply, which seems to be a typical driver for local population engagement in all sites visited, not only related to ECOBONA, but to the FOSEFOR and INCOPA, too. In spite of it, local communities, at least in Ayabaca, prefer capacity building for production projects rather than forest conservation projects. They expressed during the Focus Group their intention to use the forest and keep it for cattle ranching and wood, as needed.

There are also incipient efforts in place in Pacobamba to link a divinity by the name of Rumi Cruz, a Quechua-Spanish word meaning Stone Cross, with the local forests. As stated by the project manager, the idea is to promote Rumi Cruz as the God protector of the Chinchay Forest in an effort to vest the forest with a sacred aura to increase the sense of respect and esteem for it. This is an example of religious syncrestism between the pre-Hispanic and the Spanish cultures. To a Western observer, this would be puzzling or very hard to understand; however, this symbolism is typical of the ancestral Andean tradition, where high mountains are regarded as Gods. Actually, the Quechua name for the highest mountains in the Andes is Apu (divinity). If all these efforts will eventually contribute to project sustainability, remains unknown.

One important lesson learned from ECOBONA in terms of sustainability is that it may be increased by working with communities and municipalities in a collaborative fashion, as demonstrated by the close collaboration with the Municipality of Pacobamba and the community members in Pacobamba town and its neighbour Ccerabamba. They reported that ECOBONA staff with the assistance of local consultants is preparing follow up proposals and looking for funding sources (e.gITTO Italian-Peruvian Debt Swap Fund).

There are some concerns over FOSEFOR´s sustainability. In addition to the small and sporadic demand for native seeds, the sites themselves may be threatened. In Piura, as reported during the interviews and Focus Groups in the field, only four hectares of the Cuyas forest are fenced to protect it from cattle ranching. The rest is used by livestock at least part of the year. Interviews suggest that Piura partners seem to share the idea that the project will not halt forest shrinkage. They are now exploring the implementation of a Payment for Environmental Services scheme.

[61] Information in this paragraph comes from the three Focus Groups in Apurimac and the interaction with Project staff

On the other hand, the Mangamanguilla Agrarian Association´s commitment to protecting the seed trees site (in an area of 2,061 ha) has been tested a couple of times, as stated during the Focus Group with that community, held on January 24th, 2009. On one occasion, a passion fruit firm approached the community with an offer to purchase the forest to turn it to agricultural crops. An assembly was called , to discuss the offer and the agreement was reached that it would not be sold because they wanted to keep the site for the provision of water, wildlife and the opportunity to eventually harvest some valuable species in a sustainable fashion, once the trees reach commercial size. This decision seems to have been a good one in view of the intensive visits the site has received in the last few months because people from outside of the community are willing to go and see the forest. Visitor's books have recorded some 120 visitors in the last 12 months. The community is aware that the value of their land is increasing and that they may profit from selling the wood or even the whole plot in the future. They also perceive that the political interest in their land is increasing as is the demand for educational purpose (internships, high school visits). Eco-tourism seems to also have potential in the area, as shown by the relatively high number of visitors the area has received lately. The Mangamanguilla community increasingly perceives tourism as a source of income. Community members and local project implementer indicated that GTZ has produced a check list of flora and fauna that may help increase visitors. In addition to wildlife, archaeological sites are reported within the boundaries of the community (Vicus culture). The fate of these FOSEFOR sites is still to be seen, but it is certainly more linked to endeavours that go beyond protecting trees producing quality seeds.

In FOSEFOR, four years after programme completion, linkages between seed producers, seed centres are maintained, as reported by one former programme implementer, running a firm specialising in afforestation and reforestation. Seed centres also provide technical assistance to seed buyers. One important feature of the project in terms of sustainability was that reportedly seed quality was enhanced and has been maintained after the project, despite the low demand for seeds.

Had all three projects/programmes been designed with proper genetic and ecological baselines, associated with good monitoring systems, it would be possible to detect sources of unsustainability, eventually leading to corrective management decisions. The alarm systems and social arrangements capable of correcting deviations from sustainability should have been established at the design phase, but that has not been the case.

In conclusion, in the case of FOSEFOR having worked with already established seed centres, and the still insufficient pressure on farmers to convert forests into farmlands, increase the likelihood of being able to respond to an eventual increase in the demand for native forest seeds. It is not known how long this capacity will continue existing. INCOPA shows interesting sustainability features and a large replication potential. There is a problem with the institution that would eventually take over after the project ends.

In PROBONA/ECOBONA there are, on the one hand, indications of sustainability at the farmers, municipal and provincial levels, as well as national levels. On the other, there are also some indications of unsustainability at the farmers and government levels. It is unknown how these factors will play out in the future and how they will impact the sustainability of these initiatives. It is unclear that forest cover and the use of biodiversity components will be proven sustainable because there are no measures of it.

Lesson learned: Eventual sustainability of project/programme outcomes is not something that just happens. It has to be incorporated into the design of initiatives. In this context, the ECOBONA strategy to work with already committed institutions and to mainstream its goals into municipal and provincial governments provides reasonable assurances of sustainability. Environmental and biodiversity sustainability has to be demonstrated, it cannot just be

assumed. A good monitoring and evaluation plan with good indicators may provide evidences of this type of sustainability.

6 Recommendations

- *What are the recommendations for increasing positive impacts (strengths) and diminishing negative impacts (weaknesses) on biodiversity in the Andean Region?*

The application of demand-driven principle in project/programme design is fundamental so as to secure the forging of alliances with local populations to protect biodiversity and use natural resources sustainably. This way, local dwellers will see tangible benefits if projects/programmes are designed to respond to local needs while addressing biodiversity issues at the same time.

Sharing of knowledge as wide as possible, even on a trans-boundary basis, is strongly recommended to increase impacts of SDC funded projects in the region. The best example of this principle is INCOPA's PCPA, which after application and validation at the pilot level in Peru was "exported" to Bolivia.

INCOPA's technical assistance regarding business capacities needs to be strengthened *vis-à-vis* the pace of such buyers as GLORIA (producer of native potatoes chips) so that local producers learn how to negotiate better prices and conditions with those large buyers.

- *What are the recommendations on key factors for implementing successful biodiversity conservation while promoting sustainable development for beneficiaries?*

Projects/programmes should invite more local leaders to participate more actively and become partners of it. This holds for all projects reviewed in Peru. Although the target beneficiaries of the project are not grass-roots organisations, efforts ought to be conducted to have them participate in a more active and cost-effective manner. That was a request frequently repeated during the interviews with local populations. This principle should be born in mind even if the focus of the project/programme is at the meso level (local authorities). In a way, this has been done by the projects/programmes. For instance, ECOBONA has had the local population of Ccerabamba participate in an effort to gather biota data and pictures of the Chinchay Forest, which gave origin to a widely acclaimed and visited photographic exhibition. However, they complained that while the exhibition has toured around a number of cities of the country it has not been presented in Ccerabamba, where they want it to stay on a permanent basis to serve as the initial motivational step prior to visiting the Chinchay forest itself.

The geographic focus of each project/programme should be dimensioned bearing in mind the limited resources available and the increasing demand for support whenever the project/programme or its implementers/partners show up. For instance, some ECOBONA interviewees mentioned that the programme focus on pilot interventions looked more like a "sampling focus" because of their dimension. This is so because the programme interventions are, by definition, at the pilot level and that should remain as a key strategic intervention. Since it is unlikely that funding is increased, the projects should pay special attention to planning ahead so that interventions keep as geographically narrowed as possible. In the case of ECOBONA this would mean concentrating on Apurimac rather than expanding its area of influence to other departments (Piura), or conversely, focusing in Piura only.

- *What are the recommendations about what* makes *biodiversity interventions effective, efficient and sustainable?*

In the case of the projects/programmes currently implemented or to be implemented in Peru in the future, more coordination is needed with new Ministry of the Environment and the Forestry Authority, the latter now under the Ministry of Agriculture. The level of coordination with the previous forest authority, INRENA, was not sufficient. The new authority will have to be informed on a more permanent basis about the activity and progress of the project. In the specific case of FOSEFOR, biodiversity relevance could have been improved by increasing technical assistance not only in seed management but also in preparing seed orchards and lineage tests.

- *What are the findings and recommendations regarding the beneficiaries and non-beneficiaries at community, policies, institutional, and national level (roles, responsibilities and collaboration)?*

Careful selection of key partners is recommended for an improved impact of SDC funded projects/programmes. INCOPA's official counterpart, Ministry of Agriculture's DGPA, showed a high level of commitment due to the fact that its leadership noticed that INCOPA was consistent with and responsive to its priorities both at the geographic and thematic level. ECOBONA's synergistic relationship with the Pacobamba Municipality is also exemplary of good selection of collaborators and close partnership. FOSEFOR's case illustrates that lacking an official partner or not cultivating sound partnership with local players may lead to losing leverage at the policy and beneficiaries level. It was clear after the long series of interviews and the documentation review that FOSEFOR had very little influence and presence in most important forest/natural resources players in the country. Very few people of the ones interviewed during the Mission had ever heard about FOSEFOR, and the list of interviewees included numerous senior local forest experts.

- *What are the recommendations to better address regional issues, such as in the Andean through programmes between Peru, Bolivia and Ecuador?*

- *What are the recommendations to improve the mainstreaming of biodiversity concerns in SDC portfolio while keeping the poverty alleviation objective well in focus?*

In principle, the SDC portfolio can remain with a focus on poverty alleviation although there has been controversy in the last few years regarding the gains of Integrated Conservation and Development Projects (ICDP's)[62]. That said, if SDC continues to support mainstreaming biodiversity concerns into its poverty alleviation-oriented portfolio, implementers should be prompted to include solid indicators and targets to measure project/programme impacts from a biodiversity perspective. This translates into defining indicators and targets for conservation or knowledge of native colour potatoes diversity (e.g. germplasm) in the case of INCOPA and not limiting only to volume produced or sold in domestic markets. In the case of ECOBONA, it will imply identifying indicators and targets to tell the story not only about how big is the area of forest protected, but also about the level of threats or protection. For instance, legal status of the forest (unclear property rights is a driver for squattering) and it might well be a dimension to be gauged by the programme monitoring and evaluation system. Another

[62] ICP's are defined as those projects simultaneously aiming at development and conservation goals. See, for instance, Robertson, Nina and Sven Wunder 2005. Fresh Tracks in the Forest. Assessing Incipient Payments for Environmental Services Initiatives in Bolivia. Bogor: Centre for International Forestry Research (CIFOR) http://www.cifor.cgiar.org/publications/pdf_files/Books/BRobertson0501.pdf. Site visited on August 13, 2007

example for the ECOBONA programme would be the monitoring of illegal logging, in terms of volume illegally harvested; or some specific features of the forest plot which is protected, such as patch size, shape, connectivity, slope vulnerability, etc.

- *What are the recommendations to better position and focus the biodiversity convention within SDC's portfolio in general and in Bolivia in particular (GUP), while keeping the poverty alleviation objective well in focus.*

- *What are the recommendations to improve the link between biodiversity activities/components of the SDC support and the new climate change and food security priorities of SDC? What would be specific and ideal intersections in the portfolio to bring more in focus the climate change (adaptation and mitigation) and food security agendas?*

Food security could be improved if more effort were devoted to such native tree species as Nogal (*Junglans neotropica*), Pajuro (*Eritrina edulis*), Capulí (*Prunus serotina*), which are of direct use for food purposes. This is especially relevant for PROBONA/ECOBONA and FOSEFOR, which have a strong focus on native tree species.

ANNEXES

Annex 1

Summary Description of Case Study Projects

Project Basic Information	Project/programme Name		
	INCOPA	**ECOBONA**	**FOSEFOR**
Objective	Phase I: 2001-2003 To improve the competitiveness of small-scale potato producers in the Peruvian highlands, taking advantage of potato biodiversity and promoting alliances among different potato chain actors through multi-stakeholder platforms (national and regional) (SDC, 2007. Phase III Proposition de crédit Nº 7F-01373.03)	Phase 2006-2009: Local, national and regional players implement regulations, policies and instruments for the sustainable social management of Andean Forest Ecosystems. (Van Dam, Chris, 2009. Sistematización de aprendizajes de los programas PROBONA / ECOBONA y FOSEFOR. Informe de Consultoría a InterCooperation. Enero 2009)	Phase I (2000-2003): To promote common actions among institutions and players taking part in the tree seed market in target countries that foster the use of propagation material of high quality and known origin. (Samiri-Progea (Coordinación). 2006. Informe Final de la Fase II. FOSEFOR. Quito: Enero 2006)
	Phase II: 2004-2007 To improve the competitiveness of the potato chain, with emphasis on small farmers, taking advantage of new market opportunities and promoting the use of Native Peruvian potatoes (SDC, 2004. Phase II Proposition de crédit Nº 7F-01373.02)		Phase II (2004-2005): To foster common actions aimed at dynamising the production-commercialisation chains of quality tree seeds in the Andean zones of Bolivia, Ecuador and Peru and supporting regulatory framework governing these chains. (Samiri-Pro-Gea, 2006)
	Phase III: 2008-2010 To promote the competitiveness of the potato chain, with emphasis on small-scale producers, taking advantage of new market opportunities and promoting the use of Peruvian potato, within the framework of a public-private institutionalisation that favours the modernisation of the sector. (SDC, 2007. Phase III Proposition de crédit Nº 7F-01373.03)		

Project Basic Information	Project/programme Name		
	INCOPA	**ECOBONA**	**FOSEFOR**
Geographic and ecosystemic coverage	Upper highlands of the Departments of Ancash, Ayacucho, Apurímac, Huancavelica, Ica, Huánuco, Junín, Pasco and Cajamarca, where production of native potatoes take place (beyond 3,500 masl) and Lima, where CIP Headquarters and the final consumers are located.	Target forests are above 1,000 masl in, including dry and humid forests, with rainfall ranging between 600 and 2,000 mm/year, mostly on slopes. The project does not have any intervention in Amazon lowland forests	Target
Duration	Phase I: 2001-2003 Phase II: 2004-2007 Phase III: 2008-2010	2006-2009	Phase I (2000-2003) Phase II (2004-2005)
Total Budget for Peru (in US$)	Phase I: 741,175 Phase II: 741,175 Phase III: 1,160,000	1,000,050	
Partners	Implementer: CIP Government: Ministry of Agriculture's General Directorate of Agrarian Promotion INIA, The National Institute of Agrarian Innovation NGO's: ADERS, Asociación para el Desarrollo Sostenible del Perú CAPAC PERU (Cadenas Productivas Agrícolas de Calidad)	Implementer: Intercooperation Government: Ministry of Environment District Municipality of Pacobamba, Province of Andahuaylas, Apurimac Provincial Municipality of Ayabaca, Cajamarca Regional Government of Apurimac National Protected Areas Service AgroRural (Apurimac) National Institute of Natural Resources (INRENA)	Government: National Environmental Council (CONAM) National Institute of Natural Resources (INRENA) NGO's: ADEFOR (Cajamarca) Centro IDEAS (Piura branch) Universities: Universidad de Piura Private Firms: Arborizaciones

Annex 2 Documents Reviewed

Section Ressources Naturelles Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
PROBONA (ECOBONA) 7F-02164 01.01.1992 A 31.12.2011	Programme Regional pour la Gestion Sociale des Forets andines ECOBONA. 7F-02164.06. Phase 6 (1.04.2006 – 31.12.2009) Proposition de Credit. Conservation des forets naturelles andines (PROBONA). 7f-02164.05 Phase 5 Proposition de Credit (11/2001 – 10/2005) Programme regional de Conservation des forêts naturelles andines (PROBONA) t.300.33 (201) phase no.3., juillet 1997 à décembre 1997, Demande de credit avec texte)		Programa para La Gestion Social de Ecosistemas Forestales Andinos. ECOBANA Rapport, Premier Semestre du 2007, juillet 2007	Bosque nativo en el mundo campesino andino por PROBONA junio, 2005 (impact assessment but also has a chapter with some baseline info) PROBONA. Finalizacion de Fase y del Programa. Nota de Sintesis de Fin de Fase. IC. Por Phillipe de Rham. 31 julio 2006 Programa Regional de Bosques Nativos y Agroecosistemas Andinos. Fase V. PROBONA(rapport?) février, 2003 PROBONA Programa Regional de Bosques Nativos Andinos en Bolivia y Ecuador. Evaluacion Externa 1996. Évaluation externe 31 octobre 1996, préparée par une équipe évaluatrice qui a visité la Bolivie et l'Équateur du 2 au 28 septembre 1996 Lorenzo Zanetti & Modesto Galvez Rios	No.1 Los Caminos de la madera. Estudios. Par Sven Wunder , Quito, 1996. PROBONA, L'Indexe seulement Consultoria de Apoyo a la Estrategia Nacional de Desarrollo Sostenible. Informe Final. Mayo 1999. Rapport Final, par Dr. Xavier Izko –PROBONA, & Ing. MSc Luis Mejia-Consultor

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
Forstliches Vermehrungsgut **FOSEFOR (Programa Andino de Fomento de Semillas.** Antes: RASEFOR 1995-1999) 7F-02148 01.08.1994 A 31.12.2006 Regional (Peru, Ecuador, Bolivia)	Proposition de Credit. Phase 5. Propositon de Credit. No. 7F-00221.02 Phase 2. 01.07.02 – 30.6.06 *Demande de Crédit. No, 7F-02148.04. Phase 4.RASEFOR Avec Texte, Direction du Développement et de la Coopération DDC. 2000* *Demande de crédit. Programme régional : Banques andines de graines forestières. Phase II Demande de crédit, Avec texte 1998* *Red Andina de Semillas Forestales (RASEFOR). Banco de Semillas Forestales UMSS-Intercooperation-COSUDE. PLAN OPERATIVO ANNUAL 1997. Bolivia, 1997*	Plan Rector de la Fase II Periodo 2004-2005 FOSEFOR, Quito 2003 (baseline aussi?)	*Red Andina de Semillas Forestales (RASEFOR). Banco de Semillas Forestales UMSS-Intercooperation-COSUDE. Informe Annual -1996-. Bolivia, 1996*	Evaluacion del Programa. Programa Andino de Fomento de Semillas Forestales. Par Chris Van Dam, Adrian Sommer, Quito, febrero 2003 Plan Rector de la Fase II Periodo 2004-2005 FOSEFOR, Quito 2003 (baseline aussi?) Informe Final de la Fase II. Fosefor. Coordinacion Samiri-ProGea, Quito Enero 2006 Evaluacoin Externa. Institucion: Fundacion Agrecol-Andes. COSUDE-Bolivia-Solicitud Credito: 7F-00221.01 por Jorge Noriega, Jose Lorini, Cochabamba dic. 2001 *Red Andina de Semillas Forestales (RASEFOR). Informe de la primera fase. Julio 1995 a Junio de 1998. Quito 1998*	Scan de la Propositon de Credit. No. 7F-00221.02 Phase 2. 01.07.02 – 30.6.06 Document d'approbation de la demande de credit pour la Phase II. Comite des Opération. Proces Verbal, Berne 27 sept 2002 Scan de Cambio de la duracion de un credito (Prolongacion de fase) No. 7F-00221.02 Berna, 21.06.2006 *Documentos conceptuales. Segunda fase. Julio 1998 a diciembre 1999. PROPUESTA, basicamente como funciona RASEFOR? par Red Andina de SEmillas Forestales RASEFOR (Financé par : Intercooperation et COSUDE-Agencia suiza para el desarrollo y la cooperacion) Quito juillet 1998*

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
	Plataforma de Planificacion del Proyecto Andino de Fomento de Semillas Forestales, PROASEF. Fase III (01-2000 A 12-2003). (Version Revisada), Quito 2000 (FOSEFOR? Has some info about Fase 1)			*Red Andina de Semillas Forestales (RASEFOR). Colombia, Ecuador, Peru, Bolivia, y Chile. Memoria II Directorio Extraordinario. 15-16 de Marzo de 1999. Quito, 1999*	
Promocion Educ. Ecologica-Forestal 7F-02581 01.011988 a 31.05.1999 proyecto				Ministerio de Educacion. Evaluacion del Proyecto Educacion Ecologica en Formacion Magisterial (PEEFORM) Évaluation. Juin 1997.	
Prod. Competitiva de papa peruana 7F-01373 01.03.2001 a 31.10.2010 Peru, project	Demande de Credit. Fase III. Proposition de crédit no. 7F-01373.03, 01.04.07 – 31.05.10 (with text) Documento de Fase. Promocion de la produccion competiti-ve de la papa peruana para responder a nuevas oportunidades de Mercado-Proyecto INCOPA. Tercera Fase. 2007-2010 dic. 2006 (might have some baseline info)			Informe de la Evaluacion del Proyecto INCOPA Periodo 2004-2006. por Jenny Menacho et al. Oct 2006 Evaluacion externa del Proyecto. Promocion de la Produccion Competiti-va de la Papa Peruana para Responder a Nuevas Oportunidades del Mercado, INCOPA, Financiado por COSUDE. Por Alberto Gonzales Zuniga. 21 julio 2003	Proposition de crédit. No. 7F-01373.01. Phase 1 (one page, form) Scan de Proposition de crédit no. 7F-01373.02

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
	Promotion d'une production competitive de la pomme de terre peruvienne en reponse aux nouvelles opportunites de marche Proposition de credit (1.1.2001 – 31.12.2003) Phase 1 Resume de la proposition. Proposition de Credit pour la Phase 2 Proposition de crédit No. 7F-01373.02 (avec texte, en allemand et espagnol) Documento de Fase. Promocion de la produccion competiti-ve de la pap peruana para responder a nuevas oportunidades de Mercado-Proyecto INCOPA.(Segunda Fase) (also has some results from Fase 1, could be like an evaluation) 2003 Anexos al Documento de Fase (2da fase)			Resumen Ejecutivo. Informe de fin de Fase 1. (date?)	

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
Programa Andino de Papa 7F-02126 01.06.1998 a 31.05.2010 **PAPA ANDINA** Regional component *project*, Bolivia & Ecuador, **Peru**	Memoradum of Agreement between The Government of Switzerland and the International Potato Research Centre (CIP) for 01.06.2002 – 31.05.2006 June 1, 2002 Promocion de la produccion competitive de la papa peruana para responder a nuevas oportunidades del Mercado. (ano?, por?) Proyecto Peru. Plan de la fase 2 del proyecto Papa Andina (2002-2006) (por?, ano?) Plan de Evaluacion de Papa Andina: Fase 2. Version del 21 de abril de 2005 (por?) TORs. De Consultoria para realizar la evaluacion externa de la fase 2 de Papa Andina. (junio a sept 2005)		Informe de avance del Proyecto Papa Andina 1999-2000 (by papa andina?) Informe Anual 2002-2003. Papa Andina en un Contexto Dinamico. Avances Importantes. (papa Andina, 2004) Informe Annual Papa Andina 2004-2005. Borrador final para revision y comentarios Indice. Proyecto Papa Andina Seguimiento de actividades. 01 oct 02 a 31 mars 03 (excel spreadsheet, on 3 'productos')	Executive Summary. End of Phase Project Evaluation.Fase 1 1998-2002. by Urs Scheidegger, Jorge Salinas Informe de la Evaluacion Externa de la fase 1 (1998-2002). Borrador Final para el debriefing con COSUDE en Berna, el jueves 11 de octubre de 2001. por Urs Scheidegger y Jorge Salinas, set. 2001 Anexo 4: Informe sobre Papa Andina en Bolivia. Aporte del Proyecto Papa Andina a PROINPA por Jorge Salinas, COSUDE, Lima, August 31, 2001 Papa Andina-Fase 2. Resultados de un Proceso de Reflexion y Evaluacion. Papa Andina, Por Douglas Horton y Marisela Benavides (no date?) Anexos evaluacion. 21 sept.	Completed, signed scan of Memoradum of Agreement between The Government of Switzerland and the International Potato Research Centre (CIP) for 01.06.2002 – 31.05.2006 June 1, 2002 Comentarios Giancarlo al articulo sobre Papa Andina (ano?) Powerpoint presentation about Papa Andina, by Andre Devaux, general (year?) (baseline info?) Taller Regional de Planification organizado por Papa Andina 22 y 23 enero 2002. (obj), Quito, Ecuador Evaluacion Papa Andina. (powerpoint)Final de la Fase 1, 2001. Urs Scheidegger (Fortipapa), Jorge Salinas (PROINPA)

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
	Presupuesto: Papa Andina. Fase 2. Junio 2002 – Mayo 2006 (excel) Papa Andina:regionale Zusammenarbeit im Kartoffelsektor. (demande de credit avec texte). Phase: (2?) (01.06.02 – 31.05.06 Plan annual perative del Proyecto Papa Andina 2002-2003 Responsables: Dr. Andre Devaux et Dr. Graham Thiele (could also be a progress report about certain things of phase 1) Plan Operativo Annual del Proyecto Papa Andina 2003-2004 Coordinacion: Andre Devaux et Graham Thiele (also somewhat of a progress report for 2003) Papa Andina Plata-forma de la fase 3 (01/06/2006 – 31/05/2010) (by?, date?)			Papa Andina, Resultados de un Proceso de Reflexion y Evaluacion. *Final*. Por Douglas Horton y Marisela Benavides, Oct. 2005. Anexos. Nov. 05 Collective Action for Innovation and Small Farmer Market Access: The Papa Andina Experience. (Could be used as an evaluation since it details the status of the programme? Or as a baseline?) *Research Workshop on Collective Action and Market Access for Smallholders.* 2-6 October 2006, Cali, Colombia. By Andre Devaux, Claudio Velasco et al. (about PROINPA and INCOPA) Stimulating pro-poor innovation within market chain of native potatoes. The case of Peru. By Andre Devaux et. Al, (no year, ca. 2006) (also baseline info?)	Synopsis Evalucaiones Proyectos Paperos. (list of people responsable for proinpa, fortipapa, papandina, year?) Coloboracion entre Papa Andina (COSUDE/CIP) y Nuevo Paradigma (COSUDE/ISNAR) (ano?) documento detallando la colaboracion entre Papa Andia, Nuevo Paradigma, PROINPA y FORTIPAPA Programa Taller de Evaluacion Participativa de Papa Andina. Lima del 6 al 8 september de 2005 Evaluacion Horizontal: Metodologia para la Construccion colectiva de conocimiento. Por Graham Thiele y Andre Devaus, 31 agosto 2005, Taller de Evaluacion Participativa de Papa Andina.

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
	Papa Andina: Regional Coordination in the potota sector Facilitating innovation to support small scale farmers in the Andes. Proposition de crédit: No. 7F-02126.03. 3ª Fase. CHF: 3 000 000				Enfoque Participativo de Cadenas Productivas (EPCP) (INCOPA, Peru). Por Miguel Ordinola, Thomas Bernet, Kurt Manrique Cristina Fonseca. Taller de Evaluacion Participativa de Papa Andina. 6-9 sept. 2005 Posicion del Comite Directivo al Informe de Evaluacion de Papa Andina. (carta) nov. 2005 Memoria del Taller Regional de Planificacion de la Segunda Fase de Papa Andina. Quito 22-23, enero 2002 Proposition de Credit No. 7F-.02126.02. (sans texte) Phase 2 Talca Chips. Native Potato Snack. Powerpoint presentation outline importance of 'innovation'. April 4-5, 2006. Andre Devaux, Gordon Prain etc

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
Kartoffelforschung **CIP/IBTA Proinpa** 7F-02472 01.07.1989 a 31.12.2040 Bolivia Project converted to Foundation	TORs. Mision de evaluacion externa "Fundancion Programa de Productos Andinos-PROINPA" Abril 2001. primer borrador Comentarios de la Central al Plan Estrategico 2002-2006 (can't open the Plan), Giancarlo Mision de Orientacion Estrategica para la Fundacion PROINPA. Terminos de Ref. Version 21.01.2005) (evaluation Programa de Innovacion Continua (PIC) En el marco del: Sistema Boliviano de Tecnologia Agropecuaria (sibta) 2005, Cartas a COSUDE para el financiamiento de 2006-2010. (also some results included) Proposition de Credit Pour Phase 5. (avec texte plutot en allemand)		Carta sobre la odríguez actual de PROINPA 2004, con recomendaciones para financimiento. By Edgar Heredia, Antonio Gandarillas	Fundacion PROINPA Promocion e odríguez n de P roductos Andinos. Informe de la Mision de odríguez Estrategico. Por Urs Scheidegger, Luis Ampuero, Enrique Rivas, Junio 2005. Anexos Final. De la MOE. PROINPA, odrígu 21.01.2005 (evaluation?, baseline info?) Ministerio de Asuntos odríguez y Agropecuarios (MACA) Programa de odríguez continua (PIC). (also a history and includes somre results....but it is a proposal for funding) Rapport Final Administratif. No. 7F-02472.04. Fase 4 Mai 2005 (mostly financial) Rapport Final Administratif. No. 7F-02472.04. Fase 5 07.02 – 06.06Janvier 2007 (mostly financial)	Experiencia Boliviana en la odríguez del enfoque participativo de cadenas productos (EPCP). Documento de Trabajo. Por Gaston Lopez, Claudio Velasco, Augusto odrí, Pablo odríg. Taller de Evaluacion Participativa de Papa Andina, Lima 6-9 sept. 2005/ Estudio de Caso: Innova: "Desarrollo de metodos para articular demanda y oferta tecnologica". Por Jeff Bentley, Claudio Velasco, Ruben Botello, Felix odríguez. Documento de Trabajo. 12 agosto de 2005. Cochabamba, Bolivia. Changing paradigms for organizing R & D: agricultural research and the creationg of hte PROINPA Foundation in Bolivia ca. 2002) by Gandarillas, Blajos et al.)how PROINPA was created. Revised Article in Journal, pdf

Section Amerique Latine Programme	**Documents de projets**	**Baselines (Beneficiary Assess-ments/ Plan Rectors)**	**Rapports de progres**	**Evaluations**	**Autres**
	Convenio Interinstitucional entre la Agencia Suiza para el Desarrollo y la Cooperacion – COSUDE- y la Fundacion PROINPA relativo al Apoyo Institucional a la Fundacion PROINPA. Fase II del 01 de julio del 2002 al 30 de junio del 2006 sept, 2002				Distincion que Honra a Bolivia. (text honouring some researchers, 2005) La Prensa. Einstufungsbehelf Standard (in German). 2005 (like form for who will carry out evaluation) PROINPA: Stichworte zur Mision de Orientacion Estrategica (in German, 2005) Debriefing MOE PROINPA, 9.9.2005 Agenda. Y Puntos importantes Comite des operations. Proces-verbal. No. 10/2002 de la reunion du 13 juin 2002 (questions and answers for discussion)

Annex 3 a) Semistructured interviews – Macro and Meso level (Spanish)

(Format was removed during the actual interviews so it looked more like a semi-structured interview than an interview)

Anexo F

PARA FUNCIONARIOS DEL GOBIERNO (VARIOS NIVELES), EL PERSONAL DE COSUDE, DIRECTORES DE PROGRAMAS Y OTROS DONANTES

Nombre completo:_____
Organización/ministerio:_____
Cargo:_____
Fecha:_____

	Pertinencia
1	**¿Estaba el programa (proyecto) orientado a mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos? ¿Cómo?**
2	**¿Habían expresado los beneficiarios sus deseos de mejorar su situación a través de aumentar su acceso y uso de la flora y fauna nativa? ¿Cómo?**
	¿Se tomó en cuenta el mejoramiento de los beneficios de los usuarios en el diseño del proyecto? ¿Cómo?
	a) ¿En su diseño, ha introducido el programa/proyecto auspiciado por COSUDE **nuevas prácticas y usos que hayan beneficiado a la población local**? **¿Cómo?**
	b) ¿Se tomó en cuenta la **sostenibilidad ecológica** en el diseño del proyecto/programa? **¿Cómo?**
	c) ¿Se ha abordado en estos proyectos (programas) el papel que juegan **hombres y mujeres** y los **impactos diferenciados** en su desarrollo? ¿Como?
	c1)¿Se ha respetado **los valores y cultura** locales en la concepción del Proyecto? ¿Cómo?
3	**¿En el diseño del proyecto (programa), ¿Cómo se consideraron las prioridades nacionales y regionales de biodiversidad (flora y fauna) y los planes oficiales de reducción a la pobreza y/o desarrollo nacional?**
	a) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) lo que se hacía (hace) como parte de iniciativas de los países andinos?
	b) ¿Cómo los proyectos (programas) COSUDE complementaron (complementan) los **compromisos suizos con el CBIODIVERSITY**?
	c) ¿Cuál fue el nivel de **coherencia entre los objetivos y métodos** de COSUDE y los objetivos y enfoques del país? Ejemplo: objetivos del Proyecto de COSUDE vs objetivos del país.
	d) ¿Hubo cambios en las prioridades nacionales y regionales influenciados por el apoyo de COSUDE? ¿Cuáles fueron?
	e) ¿Hubo **cambios en la prioridad dada a la biodiversidad** a nivel nacional o regional debido a proyectos (programas) de COSUDE? ¿Cuáles fueron?
4	**¿Ha habido coherencia entre el diseño del proyecto y los componentes de biodiversidad reconocidamente amenazados en la región (ya sea a nivel de sub-especies o variedades de especies y hábitat en la región)?**

5	**¿En el diseño, cuánta coherencia ha habido entre los componentes de biodiversidad reconocidamente amenazados y los objetivos del programa de COSUDE?**
6	**¿Cómo podría ser mejorada la pertinencia de los proyectos COSUDE en biodiversidad para atender al cambio climático (mitigación y adaptación) en las zonas del proyecto?**
7	**¿Cómo podría ser mejorada la pertinencia de las actividades apoyadas por COSUDE en biodiversidad en vista de las crecientes preocupaciones por la seguridad alimentaria?**
	IMPACTOS:
8	**¿Cómo ha logrado el programa (proyecto) mejorar el acceso de los beneficiarios a los recursos de flora y fauna nativos?**
	¿Los usan ahora **más que antes**?
	¿Cómo se ha traducido esta mejoría de acceso en la **vida diaria de los beneficiarios**?
9	**¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre las prioridades a nivel nacional y regional?**
10	**¿Cuál ha sido el impacto de las actividades de biodiversidad de COSUDE sobre políticas al nivel municipal y provincial?**
11	**Impacto de las actividades de biodiversidad de COSUDE sobre:**
	i) **Los modos de vida de las poblaciones rurales**, incluyendo impactos indirectos socio-económicos que siguen al impacto directamente relacionado con la biodiversidad.
	ii) **La gente pobre**, especialmente los que viven en áreas con baja productividad agrícola, que dependen fuerte y directamente de la diversidad genética y de la biodiversidad de ecosistemas para mantener su subsistencia.
	a) ¿Qué cambios ha habido en la incidencia de pobreza en las áreas de trabajo de COSUDE? (**Por sexo y grupo étnico** si la información está disponible). ¿Cuál fue el aporte de los proyectos de COSUDE que incluyen biodiversidad a estos cambios (cambios atribuibles a BIODIVERSITY?
	b) ¿Qué cambios ha habido en los **ingresos de las familias** relacionados con los usos de la flora y fauna nativas?
	c) ¿**Para qué usan** las familias estos **nuevos ingresos**?
	d) ¿Qué cambios ha habido en las posiciones sociales correlacionadas con cambios en el uso de los recursos biológicos (**por sexo y grupo étnico** si la información está disponible)?
	e) ¿Qué cambios ha habido asociados a la **nutrición y salud** de las familias?
	f) ¿Qué **otros cambios socio-económicos y políticos**, voluntarios o involuntarios, han sido identificados (**por sexo y grupo étnico** si la información está disponible)?
	g) Con respecto a los recursos de flora y fauna, ¿Qué cambios ha habido en su distribución, gestión, acceso o control? (Por sexo y grupo étnico, en lo posible). **Distribución** **Gestión** **Acceso/Control**

12	**¿Cuál ha sido el nivel de acceso y de uso sostenible de recursos naturales por parte de los beneficiarios?**
13	**¿Cuánta participación ha habido en la preparación y gestión de los proyectos COSUDE?**
14	**¿Cómo fueron tomados en cuenta los principales sectores económicos en el área?**
	¿Hay algún impacto sobre la **sostenibilidad ecológica** a causa de cambios en actividades económicas generadas por los programas de COSUDE? ¿Cuál es el impacto?
15	**¿En qué aspectos ha mejorado la capacidad de las instituciones asociadas a proyectos COSUDE?**
16	**¿Cuán eficaces son ahora esas instituciones fortalecidas (empoderadas)?**
17	**¿Ha habido mejora o pérdida de biodiversidad en las áreas del Proyecto? Por ejemplo…**
	a) Cómo consecuencia de los proyectos COSUDE, ¿Qué cambios hay en la **cubierta forestal** de especies nativas en las zonas beneficiadas?
	b) ¿Qué cambios hay en el **número de especies usadas** de manera sostenible?
	c) Como consecuencia de los proyectos COSUDE, ¿Cuáles **cambios** hay en la superficie y el número de **áreas conservadas**?
	d) ¿Qué cambios hay en la presencia o abundancia de **especies nativas** en las áreas beneficiadas?
	e) ¿Qué cambios hay en el número de **variedades de cultivos nativos** conservadas o bajo usos sostenibles que puedan atribuirse a los proyectos COSUDE?
	f) ¿Puede decirse que los proyectos COSUDE han ayudado a **proteger recursos naturales en el largo plazo**? ¿Cómo?
	g) Como consecuencia de los proyectos de COSUDE, ¿qué cambios hay en la **situación legal de tierras** que podrían contribuir a la protección de la flora y fauna nativas?
	h) Como consecuencia de los proyectos de COSUDE, ¿Qué instrumentos **legales y capacidades de fiscalización y sanción** se han establecido para la protección de la flora y fauna nativas?
	i) Cómo consecuencia de los proyectos de COSUDE, ¿Qué capacidad **financiera y compromisos de largo plazo** existen para la protección de la flora y fauna nativas?
18	**¿Hasta qué punto los valores de conservación la conservación y uso sostenible apoyados por el Proyecto son compartidos por los actores al nivel local, regional y nacional?**
	SOSTENIBILIDAD
19	**¿Cuál es la probable sostenibilidad política e institucional de los resultados del Proyecto? ¿Cómo se hubiera podido mejorar?**
	a) Como consecuencia de los proyectos COSUDE, ¿Cómo ha cambiado el nivel de **compromiso político** con la conservación de la BIODIVERSITY?
	b) Como consecuencia de los proyectos, ¿Cómo han mejorado los **servicios** proporcionados por las **instituciones fortalecidas**?

	c) ¿Cuál es el nivel de mejoramiento en la **entrega de servicios** como resultado del apoyo de COSUDE?
20	**¿Son socialmente y culturalmente aceptables los resultados? ¿Qué hubiera podido mejorar esa aceptación?**
	a) ¿Cuáles son los **impactos socio/culturales positivos** medidos y cómo se comparan éstos con los **efectos negativos** o involuntarios que pudieran haberse producido?
21	**¿Serán económica y financieramente sostenibles los logros de los proyectos? ¿Cómo? ¿Cómo se podría mejorar la sostenibilidad?**
	a) ¿Se han medido **impactos económicos y financieros positivos** y se los ha contrastado con **impactos negativos** e involuntarios?
	b) ¿Hay **financiamiento y mecanismos referidos a COSUDE comprometidos** para la conservación y usos sostenibles de la BIODIVERSITY y para ayudar a modos de vida sostenibles?
	c) ¿Cuál es la **viabilidad financiera y económica** de los modos de vida desarrollados en los proyectos de COSUDE?
22	**¿Cómo serán ecológicamente sostenibles los resultados de los proyectos? ¿Qué hubiera podido mejorar esta sostenibilidad?**
	EFICACIA
23	**¿Qué tan exitosos fueron los programas en lograr sus resultados de uso sostenible de la biodiversidad?**
24	**¿Cómo han contribuido las actividades de BIODIVERSITY de los programas/proyectos a lograr la meta de aliviar la pobreza?**
	¿La **influencia** de las componentes de biodiversidad ha sido mayor **en lo político, institucional, socio-económico o ecológico**?

Annex 3b.) Semistructured Interview – Micro level

PARA ORGANIZACIONES LOCALES TRABAJANDO DIRECTAMENTE CON LOS BENEFICIARIOS.

1. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?
   1a. (Si sí a 1): ¿Estuvo involucrado (a) personalmente en el proyecto de alguna forma?
   1b. (Si si a 1a): ¿Cómo?
   1c. (Si sí a 1): ¿Cuáles fueron (son) las metas del proyecto?
   1d. (Si sí a 1): ¿Cómo se intentó lograr esas metas?

2. Algunas de sus actividades tenían que ver con la conservación de la biodiversidad, ¿cómo clasificaría el éxito final del proyecto? (altamente satisfactorio AS, satisfactorio S, moderadamente satisfactorio MS, insatisfactorio I)
   2a. ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?

3. ¿En los años transcurridos cómo ha cambiado el estado de la conservación de la flora y fauna en el área? (mejor/igual/peor)
   3a. ¿Por qué lo clasificó así? ¿Qué datos apoyan su afirmación?
   3b. (si 'mejor; o 'peor' a 3): ¿Cuáles son las causas por las que ha mejorado/empeorado la situación?

4. ¿Qué cambios sociales/económicos/políticos han ocurrido durante el proyecto (desde el inicio o desde el final) que hubieran podido afectar la conservación de la biodiversidad?
    - ¿Cree que COSUDE incidió en el alivio de la pobreza en su área de trabajo? (Por sexo y grupo étnico si la información está disponible).
    - ¿Cuáles cambios ha habido de ingresos de las familias relacionado con los usos de la flora y fauna?
    - ¿Qué usos le han dado las familias a esos nuevos ingresos?
    - Con respecto al proyecto auspiciado por COSUDE, ¿los cambios en los modos de vida y en el uso de los recursos (por sexo y grupo étnico si la información está disponible) han cambiado la situación social de las familias?
    - ¿Cuáles cambios han habido en la nutrición y salud atribuibles al proyecto?
    - ¿Se han identificado otros efectos del proyecto auspiciado por COSUDE ya sea socio-económicos o políticos, voluntarios o involuntarios (por sexo y grupo étnico si la información está disponible)?
    - ¿Cuáles cambios produjo el proyecto COSUDE en la distribución, gestión, acceso o control sobre los recursos de flora y fauna (Por sexo y grupo étnico)?

    4a. (Para cada cambio listado): ¿Cómo afectó este cambio la conservación de la flora y fauna?)
    4b. (para cada cambio listado): ¿Fue posible prever este cambio antes de que terminara el proyecto?
    4c. (Para cada cambio listado, y sí en 4b: ¿El proyecto anticipó el cambio y se planificó para ello?
    4d. (Si sí a 4c): ¿Cómo?

5. (Si sí a 1): ¿Cómo sería el estado de la conservación de la biodiversidad hoy día si no hubiera existido el proyecto/programa de COSUDE? (mejor/igual/peor)
    5a. (si 'mejor' o 'peor' a 5): ¿Por qué?
    5b. (si 'mejor' o 'peor' a 5): Después del final del proyecto, sigue siendo válidas estas razones o ha cambiado la situación?
    5c. (Si 'cambiado' a 5b): ¿Cómo?

6. ¿Cuáles eran las amenazas principales a la flora y fauna antes del proyecto/programa de COSUDE? (ejs: caza o destrucción ilegal, uso no sostenible, contaminación, falta de preferencia en un mercado, etc)
    6a. (para cada amenaza listada): ¿Qué tan grande fue el área afectada por esta amenaza? (toda/la mayor parte/algunas partes/un poco)?
    6b. (para cada amenaza listada): ¿Qué tan seria era esta amenaza en términos del impacto sobre la biodiversidad? (alta/mediana/baja)
    6c. (para cada amenaza listada): ¿Se ha reducido esta amenaza al final del proyecto/programa? (En términos de área y de impacto)
    6d. (para cada amenaza listada): ¿Hasta qué punto la reducción de amenazas fue resultado de las actividades del proyecto/programa? (todas/la mayoría/algunas /pocas). ¿Hubo otros proyectos en esa misma área con propósitos similares?
    6e. (para cada amenaza listada): ¿Por qué lo clasificó así? Qué datos apuntan a esa clasificación?
    6f. (para cada amenaza listada): ¿Qué otros cambios han sucedido desde el final del proyecto con respecto a esta amenaza, en términos de área y de impacto? (Ejs., Proyectos nuevos, aumento de la destrucción, cambios de políticas, etc)

7. (Si sí a 1): ¿Qué lecciones aprendieron, tanto positivas como negativas, con el proyecto y que han ayudado a la conservación de la biodiversidad en esta área?
    7a. (Si se lista lecciones en 6): ¿Han sido aplicadas estas lecciones?

7b. (Si se lista lecciones en 6): ¿Dónde han sido aplicadas estas lecciones? ¿Pueden verse?

COMUNIDAD LOCAL

1. ¿Por cuánto tiempo ha vivido en esta área?

2. ¿Está familiarizado(a) con el proyecto/programa de COSUDE?

3. ¿Estuvo Ud. involucrado (a) de alguna manera en el proyecto? ¿Puede haber sido, por ejemplo, a través de colaboración en la preparación del proyecto o su implementación? ¿Percibió Ud algún beneficio del proyecto?

4. ¿En comparación al pasado (muchos años atrás ¿cuántos?), hay más vegetación y animales en el área, o menos?
   4a. En los últimos anos, hubo algunos cambios en el hábitat natural?
   4b. (Si algun cambio listado en 4 o 4ª): ¿Qué causó estos cambios?

5. En comparación con los últimos años (los más recientes ¿cuántos?), ¿ve más o menos animales en el área? ¿Qué especies son más frecuentes ahora que hace unos años? ¿Qué especies son ahora menos frecuentes?
   5a. ¿En los últimos años (los más recientes ¿Cuántos?) hubo algunos cambios en la cantidad de animales? La cantidad de animales silvestres ha aumentado o disminuido en los últimos años?
   5b. (si sí a 5ª): ¿Qué causó estos cambios?
   Nota: fotos de animales y pájaros podrían servir para acumular más información específica.

6. ¿Diez años atrás, qué tipos de actividades estaban destruyendo el bosque, o matando a los animales?
   6a. (Para cada actividad listada): ¿Esto sucedía en una gran área o en un área pequeña? ¿De qué tamaño?
   6b. (para cada actividad listada): ¿Esta actividad causó mucha destrucción al bosque o fauna, o solo un poco?
   6c. (para cada actividad listada): ¿En los 10 últimos años, esta actividad ha disminuido o aumentado, en cuánto? (mucho/poco)
   6d. (Si hay un cambio listado en 7c): ¿Por qué ha disminuido/aumentado?
   6e. (para cada actividad listada): ¿En los últimos 2-3 años, hubo algún cambio en esta actividad? (aumentado/igual/disminuido)
   6f. (si hay un cambio listado en 7e): ¿Por qué ha disminuido/aumentado?
   6g. (para cada actividad listada): ¿Quiénes realizan estas actividades…forasteros o gente de la misma comunidad o comunidades cercanas?

7. ¿Qué sería lo mejor que podría hacer el gobierno ahora para ayudarle a Ud. y a su familia?

8. ¿Cómo se beneficia Ud del uso de la flora y fauna nativa? ¿Le gustaría hacerlo más? ¿Qué se lo impide? ¿Por qué no lo hace?

9. ¿Cuáles son sus actividades principales? (p.ej., trabajo con semillas, trabajo en el bosque, agricultura, silvicultura, agro-silvicultura)?
   9a. (Para cada actividad listada): ¿Cuánto tiempo pasa Ud. o su familia en esta actividad?
   9b. (para cada actividad listada): ¿Vende los productos, o los usa Ud. mismo (auto-consumo)?

9c. (para cada actividad que genera ingresos): ¿Cuánto gana de esta actividad durante el año? ¿Es su ingreso más importante?
9d. Si compara antes y después del proyecto, ha cambiado el tiempo que dedica a sus diferentes actividades? En cuáles pasa más y en cuáles pasa menos tiempo?
9e. ¿Hay actividades que empezó sólo después del comienzo del proyecto/programa? ¿Cuáles?
9f. (Si sí a 4e): ¿Por que empezó estas actividades y quién se las enseñó/mostró/presentó?
9g. ¿Hay algunas actividades que dejó de hacer desde que empezó el proyecto/programa? ¿Cuáles?
9h. (si sí a 4g): ¿Por qué dejó de hacerlas?
9i. ¿Es propietario (a) de algún terreno en esta área?
9j. ¿Impulsó el proyecto algún otro cambio en su vida?
9k. Para los que ganan más a causa de actividades del proyecto, ¿para qué usa este dinero adicional?

Annex 4

Peru Mission Programme

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
Sunday 11, Jan				
AM		Arrival in Lima Dr. Fuentes		
16:00 - 23:00		Arrival in Lima Dr. Fuentes Agenda Update Review of Annex F and Annex H	Eduardo y Coco	NA
Monday 12, Jan				
09:00 - 12:00	INCOPA	Meet with Incopa team	André Devaux, Director INCOPA Miguel Ordinola, CIP	Centro Internacional de la Papa - CIP Av. La Molina 1895, La Molina.
		Coordination of upcoming events: Llamar a Carmen Mover reunión c/WHuamaní de 14:30 a 15:00 Preguntar si ML del Río participa Confirmar hora de cita con ED/VV Llamar a R Kometter - Confirmar agenda ECOBONA Llamar a A Quispe (FOSEFOR)		
12:00 - 13:30	INCOPA	meet with Incopa team	Noemí Zuñiga, National Potato Research Program, In charge of FONTAGRO Project INIA	Instituto Nacional de Investigación Agraria - INIA. Av. La Molina
15:00 - 17:00	PROBONA/ECOBONA	Reunión a nivel Macro	Walter Huamani (Forestry Specialist)/Maria Luisa del Rio (Get het job title)	Sala 1 MINAM

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
17:00 - 18:00	Cambio Climático	Reunión a nivel Macro	Eduardo Durand (Climate Change Adviser, Vice Minsitry of Strategic Development of Natural Resources)	MINAM
Tuesday 13, Jan				
08:00	INCOPA	meet with Incopa team Macro	Miguel Quevedo, Potato Specialist, Agrarian Promotion General Directorate, Ministry of Agriculture	Oficina de la Dirección General de Promoción Agraria Jr. Yauyos, 258, Segundo Piso 3155090, anexo 2277 y cell: 997801624
10:00	INCOPA	meet with Incopa team Meso/Micro	Celfia Obregón, President, Peruvian Association for the Sustainable Development of Peru (ADERS) Hermenegildo Huaquisto, Executive Director, ADERS	ADERS PERU Prolongación Arenales 343, San Isidro
11:30	INCOPA	meet with Incopa team Meso/Micro	Pedro Urday, President, CAPAC-PERU Mario Sevilla, Manager, CAPAC-PERU	Oficinas de CAPAC PERU Javier Prado Oeste 109, Magdalena del Mar 461-6425 y cell de Sr. Sevilla: 990321442
13:45 - 15:45	INCOPA	Working lunch	Celfia Obregón, President, ADERS	
18:00 - 20:00	INCOPA	meet with Incopa team. Macro	Hugo Fano, Member of the Board of INCOPA and Papa Andina, Consultant	Roosevelt Hotel

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
Wednesday 14, Jan	INCOPA/FOSEFOR?			
08:30 - 13:00	TBD	Interview data compilation & analysis		Roosevelt Hotel
16:00 - 17:00	ECOBONA	Meeting with TNC to discuss conservation priorities in Peru & ECOBONA Project	Fernando Ghersi, Humbodlt Program Coordinator	TNC, Av. Casimiro Ulloa 346, Miraflores, Tlf: 444 1166
19:00 - 22:00	ECOBONA	Synthesis of info gathered	EF & CE	
Thursday 15, Jan				
08:15	INCOPA/ECOBONA	Working Breakfast with WWF to discuss conservation priorities in Peru	Teddi Peñaherrera, Conservation Director, WWF/Peru	Hotel Roosevelt
09:30 - 13:45	INCOPA	Travel to Huanuco		
14:00	INCOPA	Hotel check-in		Grand Hotel Huánuco. Tlf: (51-62) 51 2408
14:30 - 16:30	INCOPA	Working lunch with ADERS Team		
17:00 - 20:00	INCOPA	Synthesis of info gathered to date Field trip logistics coordination		Grand Hotel Huánuco. Tlf: (51-62) 51 2409
Friday 16, Jan	INCOPA			
06:00 - 19:30	INCOPA	Visit Cayna Community in Huanuco		
Saturday 17, Jan	INCOPA			
06:00 - 13:00	INCOPA	Visit Community in Pasco		
14:50 - 17:00	INCOPA	Travel back to Lima		
18:00 - 19:00	INCOPA	Logistics arrangements		
Sunday 18, Jan	INCOPA			
10:00 - 15:30	INCOPA	Travel to Puno / Hotel Check-in		Hotel Italia. Tlf: (51-51) 36 7706
16:00 - 18:00	INCOPA	Working lunch with Cristina Fonseca - Discussion of logistics for Monday field trip		
18:00 - 22:00	INCOPA	Notes review and write up		

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
Monday 19, Jan	INCOPA			
08:30 - 10:00	INCOPA	Interview at Ministry of Agriculture/Puno	Eddy Huarachi, Antonio Tejada and Cristina Fonseca	
10:00 - 15:00	INCOPA	Field visit to Consorcio Los Aymaras		
18:00 - 20:30	INCOPA	Data compilation and preliminary analysis	EF & CE	Hotel Italia. Tlf: (51-51) 36 7706
Tuesday 20, Jan	ECOBONA			
07:00 - 11:00	ECOBONA	Fly back to Lima		
14:30 - 15:45	ECOBONA, FOSEFOR & INCOPA	Discussion swith COSUDE representatives of FOSEFOR, ECOBONA and INCOPA.	Jean Christophe Favre, Resident Director a.i., Jocelyn Ostolaza, National Program Officer Cesarina Quintana, National Program Officer; COSUDE/Lima	Av. Salaverry 3242. Tlf: 264 5401
17:00 - 18:45	All projects	Systematize data gathered and plan work for days ahead	CE & EF	Roosevelt Hotel
Wednesday 21, Jan	ECOBONA & FOSEFOR		TBD	
08:30 - 10:00	ECOBONA	Meeting with ECOBONA Team	Roberto Kometter, ECOBONA Project DirectorRebeca Dumet, ECOBONA Technical Assistant	InterCooperation, Av. Ricardo Palma 857, Miraflores. Tlf:

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
10:00 - 11:00	ECOBONA	ECOBONA sustainability	Jorge Malleux, ECOBONA Forestry Consultant Roberto Kometter, ECOBONA Project Director Rebeca Dumet, ECOBONA Technical Assistant	InterCooperation, Av. Ricardo Palma 859, Miraflores. Tlf: XX
11:00 - 12:30	ECOBONA	Meeting with ECOBONA Team (continuation)	Roberto Kometter, ECOBONA Project Director Rebeca Dumet, ECOBONA Technical Assistant	InterCooperation, Av. Ricardo Palma 859, Miraflores. Tlf: XX
12:30 - 13:15	FOSEFOR	Meeting with FOSEFOR partner	Alfredo Quispe, Manager, Arborizaciones, Inc.	Intercooperation
13:45 - 14:45	ECOBONA	Working lunch with ECOBONA Team	Roberto Kometter, ECOBONA Project Director Rebeca Dumet, ECOBONA Technical Assistant	Intercooperation
14:45 - 15:30	ECOBONA	ECOBONA economic & productive components	Victor Gonzalez, ECOBONA Consultant	Intercooperation
15:30 - 16:15	ECOBONA	ECOBONA policiy incidence	Jose Dance, ECOBONA Consultant	Intercooperation
16:15 - 16:35	ECOBONA	Coordination of ECOBONA meetings in Ecuador	Galo Medina, ECOBONA Regional Director	Intercooperation
16:35 - 17: 15	ECOBONA	ECOBONA M&E System	Rebeca Dumet, ECOBONA Technical Assistant	Intercooperation

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
Thursday 22, Jan	ECOBONA			
09:30 - 14:00	ECOBONA	Travel to Piura/Hotel Check-in	Roberto Kometter	Hotel Los Portales
16:00 - 18:30	ECOBONA/FOSEFOR	Meet with meso-level stakeholders (ECOBONA) Meso & Micro	List of participants attached	Universidad de Piura
Friday 23, Jan	ECOBONA			
05:00	ECOBONA	Departure from Piura		
10:00 - 11:00	ECOBONA	Arrival in Ayabaca, meet with local Project staff	Blanca, Angel, Luis, Paul	Ayabaca
11:00 - 13:00	ECOBONA	Meeting with Deputy Mayor and local authority representatives	Mayor; local beneficiaries, focus groups	Ayabaca Municipality
13:00 - 14:00	ECOBONA	Visit to the Cuyas Forest	Local Project staff and Mrs. Sebastiana (community member)	Cuyas Forest
14:30 - 16:00	ECOBONA	Meeting with Community members	List of participants to be provided by RK	ECOBONA local office - Ayabaca
16:15 - 21:15	ECOBONA	Drive back to Piura		
Saturday 24, Jan	FOSEFOR			
07:30 - 09:15	FOSEFOR	Trip to Mangamanguilla	Luis Albán, Zayra Carrillo, Alex XXX (NCI)	
09:30 - 12:00	FOSEFOR	Meeting with beneficiaries of FOSEFOR Micro	Arbel Cruz, Eusebio Becerra, Gerardo Jaramillo, Manuel Cruz (Community members) Luis Albán, Zayra Carrillo, Alex XXX (NCI)	XX's house, Mangamanguilla
12:00 - 14:00	FOSEFOR	Return to Piura		
15:30 - 19:00	FOSEFOR	Data systemataization and Field work wrap up	EF & CE	El Angolo Hotel
22:15 - 23:45	ECOBONA/FOSEFOR	Fly back to Lima		

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
Sunday 25, Jan				
12:50		Dr. Fuentes departure		
Thursday 5, Feb	ECOBONA			
12:00 - 16:00	ECOBONA	Fly to Cusco/car rental		
16:00 - 22:00	ECOBONA	Travel to Abancay city/Hotel check-in	Roberto Kometter	Hotel Saywa
Friday 6, Feb	ECOBONA			
05:00 - 08:30	ECOBONA	Travel to Pacobamba		
09:00 - 11:00	ECOBONA	Meeting with Pacobamba Municipality officers - Meso	Jimmy Amézquita, Administrator; Glicerio Pedraza, Chief, Office of Local Economic Development; Marisol Arredondo, Administrative staffer	Pacobamba Municipality
11:00 - 13:00	ECOBONA	Meeting with Ccerabamba community beneficiaries - Micro	Víctor Quchihua Huarcaya, Javier Huamán Vásquez, Crispín Reinaga Linares, Percy León Valenzuela, Roberto Sánchez Carreón, Vicente Espinoza Vásquez, Juan Pedraza XX (no se entiende segundo apellido), Braulio Pedraza Aguirre, Glicerio Pedraza Mejares	Ccerabamba Municipality
15:00 - 17:00	ECOBONA	Field notes write up		ECOBONA/Apurimac office
17:00 - 18:30	ECOBONA	Meeting with several key players (Meso)	Representatives from Forest Authority, SERNANP, Regional Government, AgroRural	ECOBONA/Apurimac office

Peru Field Visit Programme, Jan 11 - 25, Feb 5 - 7, and Mar 6 – 9, 2009. Dr. Eduardo Fuentes and Coco Elgegren (Updated: March 29, 2009)				
Date/time	**Project/Program**	**Activity**	**Actors**	**Contact Information**
19:00 - 22:30	ECOBONA	Travel back to Cusco/	Hotel Check-in	Hotel Vilandré
Saturday 7, Feb	ECOBONA			
08:00 - 10:00	ECOBONA	Field notes write up		Hotel Vilandré
10:00 - 14:00	ECOBONA	Fly back to Lima		
Friday 6, March	FOSEFOR			
21:00 – 07:30 (next day)	FOSEFOR	Travel to Huaraz city		
Saturday 7, March	FOSEFOR			
07:30 - 08:30	FOSEFOR	Hotel Check-in		Hotel Colomba
08:30 - 10:00	FOSEFOR	Travel to San Nicolás caserío		
10:00 - 12:00	FOSEFOR	Meeting w/ project beneficiaries	Lucio Huanay Luis Garay	
13:00 - 16:00	FOSEFOR	Travel to San Antonio caserío		
16:00 - 17:00	FOSEFOR	Meeting w/ project beneficiaries	Mario Barreto Raymundo Barreto Germán Macedo	
17:30 - 19:00	FOSEFOR	Travel back to Huaraz		
20:00 - 21:00	FOSEFOR	Interview w/Job Gomero (questionnaire)	Job Gomero, former project implementer	Hotel Colomba
Sunday 8, March	FOSEFOR			
07:30 - 10:00	FOSEFOR	Travel to Cascapara district		
10:30 - 12:00	FOSEFOR	Meeting w/project beneficiaries	Jorge Infantes Jara	
12:00 - 14:00	FOSEFOR	Return to Huaraz		
15:00 - 21:00	FOSEFOR	Field notes write up		Hotel Colomba
22:00	FOSEFOR	Travel back to Lima		
Monday 9, March	FOSEFOR			
07:30	FOSEFOR	Arrival in Lima		

Annex 5

List of people and sites visited are grouped in four categories.
People include people from the Government of Peru, SDC and the donor community (including international NGO's), that is called "General"; and three groups divided by Project.

GENERAL
Eduardo Durand, Climate Change General Director, Ministry of Environment
Fernando Ghersi, Humboldt Program Coordinator, The Nature Conservancy
Teddi Peñaherrera, Conservation Director, World Wildlife Fund
Jean Christophe Favre, Resident Director a.i., COSUDE
Jocelyn Ostolaza, National Program Officer, COSUDE
Cesarina Quintana, National Program Officer, COSUDE

ECOBONA
Walter Huamaní, Forestry Specialist, Ministry of the Environment
María Luisa del Río, Biological Diversity General Director, Ministry of the Environment
Roberto Kometter, ECOBONA Project Director
Rebeca Dumet, ECOBONA Technical Assistant
Jorge Malleux, ECOBONA Forestry Consultant
Victor González, ECOBONA Consultant
Jose Dance, ECOBONA Consultant
Galo Medina, ECOBONA Regional Director
ECOBONA/Ayabaca (Piura, NCI) Project Staff:
- Blanca Salazar, NCI field facilitator
- Angel Seminario, NCI field facilitator
- Luis Albán, NCI Executive Director
- Paul Viñas, Responsible for NCI/Ayabaca Office

Ayabaca Province Municipality Mayor and staffers
- Nestor Herrera Rea, President of the Planning and Budget Committee, representing the Mayor
- Miguel Herrera, President of the Environmental Management Committee
- Antonio Garcia, Environmental, Natural Resources and Health Division
- Evaristo Castillo, Social Matters Manager
- Sebastiana Huamán Herrera, Ambasal farmer

Andurco Community (Ayabaca) beneficiaries:
- Esteban Aguilera, owner of the Cuyas Forest
- Ruben Jimenez, Andurco Community Past-President
- Patricio Rivera, Andurco Community forestry promoter
- Ronald Castillo, Andurco Community Secretary General
- Sebastiana Huaman Herrera, Ambasal farmer
- Other partners (gathered for a meeting at Universidad Privada de Piura):
- Nora Grados, Environmental and Integrated Development Projects Unit, Universidad Privada de Piura
- Luis Albán, NCI Executive Director
- Paul Viñas, Responsible for NCI/Ayabaca Office
- Lorenzo Salazar, Environmental Management Deputy Manager, Regional Government of Piura
- Tulio Santoyo, Senior Advisor, Natural Resources Conservation Component, Sustainable Rural Development Program, GTZ
- Octavio Choquehuanca, Sicches District Mayor, President of the Señor Cautivo de Ayabaca Commonwealth
- Ronny Zegarra, Deputy Mayor Montero District
- Carlos Cabrejos, Centro Ideas NGO
- Albino Vicente Saucedo, Santa Maria de Locuto Communal Enterprise General Manager

FOSEFOR

Walter Huamaní, Forestry Specialist, Ministry of the Environment
Alfredo Quispe, Manager, Arborizaciones, Inc.
Job Gomero, Manager El Nogal, Inc., formerly an Arborizaciones employee
Other partners (gathered for a meeting at Universidad Privada de Piura):
- Nora Grados, Environmental and Integrated Development Projects Unit, Universidad Privada de Piura
- Luis Albán, NCI Executive Director
- Paul Viñas, Responsible for NCI/Ayabaca Office
- Lorenzo Salazar, Environmental Management Deputy Manager, Regional Government of Piura
- Tulio Santoyo, Senior Advisor, Natural Resources Conservation Component, Sustainable Rural Development Program, GTZ
- Octavio Choquehuanca, Sicches District Mayor, President of the Señor Cautivo de Ayabaca Commonwealth
- Ronny Zegarra, Deputy Mayor Montero District
- Carlos Cabrejos, Centro Ideas NGO
- Albino Vicente Saucedo, Santa Maria de Locuto Communal Enterprise General Manager

Luis Albán, Zayra Carrillo, (NCI)
Mangamanguilla Community members:
- Arbel Cruz
- Eusebio Becerra
- Gerardo Jaramillo
- Manuel Cruz

San Nicolás Caserío (small town) members:
- Lucio Huanay
- Luis Garay

San Antonio Community members:
- Mario Barreto
- Raymundo Barreto
- Germán Macedo

Cascapara Community members:
- Jorge Infantes Jara

INCOPA

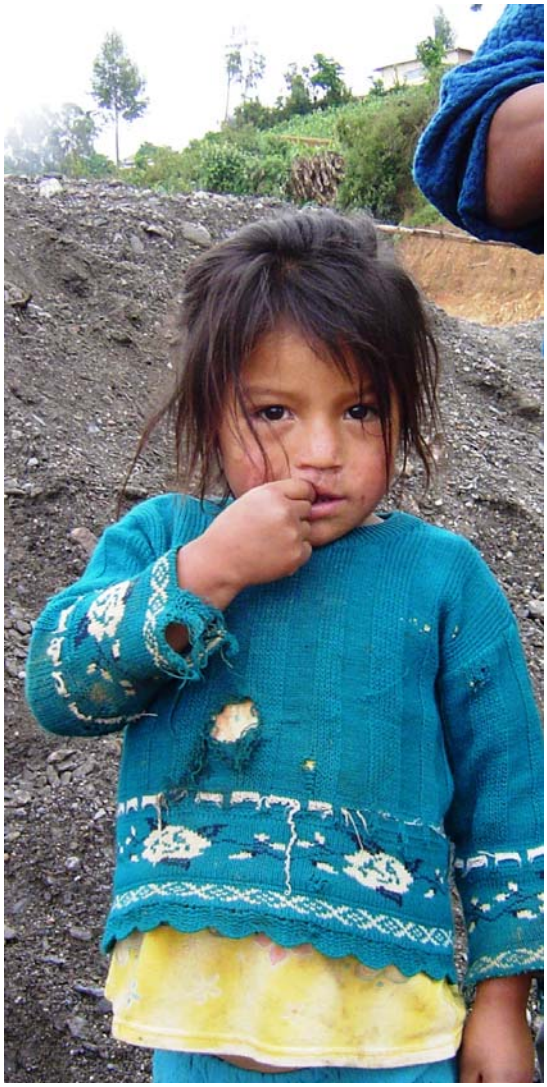
André Devaux, Director INCOPA
Miguel Ordinola, General Coordinator, CIP
Noemí Zúñiga, National Potato Research Program, In charge of FONTAGRO Project, INIA
Miguel Quevedo, Potato Specialist, Agrarian Promotion General Directorate Ministry of Agriculture
Celfia Obregón, President, Peruvian Association for the Sustainable Development of Peru (ADERS)
Hermenegildo Huaquisto, Executive Director, ADERS
Pedro Urday, President, CAPAC-PERU
Mario Sevilla, Manager, CAPAC-PERU
Celfia Obregón, President, ADERS
Hugo Fano, Member of the Board of INCOPA and Papa Andina, Consultant
Cayna Community members
- Pedro Leandro de La Cruz Ramirez
- Guillermo Espinoza Ramirez
- Marcelo Aranda Quispe
- Zacarias Tadeo Ochoa
- Dionicio Falcón Olazo
- Pedro Onofre Contreras
- Rociendo Ochoa Malpartida

Justiniano Lorenso Falcon Venturo
Edwin Berna Huaman
Evaristo Solorzano Rios
Justo Aranda Calero
Sebastian Calero Cisneros
Justina Salcedo Fabian
Lourdes Calero Cisneros
Lourdes Calero Onofre
Alejandrina Ponce Celadita
Benjamina Quispe Contreras
Felipa Ochoa Malpartida
Ereni Quispe Matos
Antonieta Aranda Quispe
Ely Fabián Bocanegra
Marcelina Torres Cruz
Hector Ramirez Venturo
Gloria Garcia Calero
Erescina Casio Venturo
Eddy Huarachi, Antonio Tejada and Cristina Fonseca

Annex 6. Pictures

6.1 Potato stakeholder in the highlands of Peru

It is children like her that will now able to go tho school



6.2 Team at the border of the Andean forest.

This forest is a project target. The Mission could see evidences of wood extraction.

6.3 Andean Mountain forests

A dramatic picture showing the kinds of forests targeted by PROBONA-ECOBONA

6.4 Tunta

INCOPA helped farmers work with Tunta (a variety of dried potato) and process it to increase incomes

6.5 Variety of Andean tubers

This sample, taken form a show-case at CIP in Lima shows a variety of “potatoes”. Only a few of them are recognized by the market as potatoes.

6.6 Interviewing a farmer in the highlands

6.7 Focus Group posing for an after the meeting picture.

6.8 Potatoe stakeholder holding a Yellow Potatoe of high market value-

6.9 A successful INCOPA beneficiary near Puno.

She received technical assiatnce from the project and support in marketing her production.

6.10 Highland farmers also grow livestock

As a form of banking incomes, sometimes livestock is purchased using moneys coming from marketing potatoes.

6.11 Focus Group at work

Although there were both men and women in the room, the latter could not be brought into the discussion. There is a strong division of roles among men and women among high Andes people.

6.12 Harvesting potatoes in the high Andes

Women prepare the food close to the fire while men harvest the potatoes.