BioCAN
Biodiversity Programme for the Amazon Region of the Andean Community

Summary of Results
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BioCAN Biodiversity Programme for the Amazon Region of the Andean Community – Summary of Results

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This report was prepared based on the documents written by the team members of the BioCAN Programme and its implementing organisations.

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## 1 Fact Sheet

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<td>Implementer</td>
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<td>National Focal Points</td>
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| Country-level implementing organizations | Non-Governmental Organisations  
                                Research Institutes  
                                Universities  
                                Non-profit community organizations such as associations of municipalities and local indigenous organizations |
| International Technical Assistance | FCG International Ltd  
                                Agricultural Research for Development - CIRAD |
| Project area    | Amazon region of Bolivia, Colombia, Ecuador, and Peru                         |
| Duration        | 06/2010 -12/2013                                                             |
| Programme budget| EUR 6,275,000                                                                |
| Donor           | Ministry for Foreign Affairs of Finland                                        |
| Key words       | Sustainable development  
                                Biodiversity conservation and management  
                                Capacity strengthening |
2 Prologue

The Biodiversity Programme for the Amazon Region of the Andean Community – BioCAN was implemented by civil society organisations in each Member State of the Andean Community; Bolivia, Colombia, Ecuador, and Peru, in close cooperation with their respective Ministries of Environment. The General Secretariat of the Andean Community was responsible for the overall coordination at the regional level.

This report highlights the main results of BioCAN from the regional point of view without entering into details about individual projects. However, it would have not been possible to obtain these achievements without the dedication and collaboration of the implementing organisations that carried out BioCAN activities in the field. These entities have built up their knowledge on Amazonian environmental management during years, sometimes decades, of practical experience in close contact with local populations and the public sector.

A detailed list of the projects and the implementing organisations can be found in the end of the document.

**Picture 1: Interpretation of the Colombian Amazonia by María Parra, winner of the drawing contest for schools.**
3 Background

The Biodiversity Programme for the Amazon Region of the Andean Community – BioCAN is a development cooperation programme between the Ministry for Foreign Affairs of Finland and the General Secretariat of the Andean Community.

BioCAN is a continuation of several decades of support that Finland has provided to a number of scientific environmental research projects in Peruvian Amazonia. Later on, the assistance took the form of institutional cooperation, including the emblematic BIODAMAZ project (1999-2007), which had as an objective the improvement of local livelihoods through conservation and sustainable use of biodiversity.

The encouraging results of the bilateral cooperation between Peru and Finland were a driving force behind the decision to upscale the action to all four Andean countries.

In parallel, the Andean Community had progressively taken steps towards regional integration in the environmental sector by agreeing upon a Regional Biodiversity Strategy (2002) and an Andean Environmental Agenda (2006-2010)\(^1\).

It was in this context that the General Secretariat of the Andean Community and the Ministry for Foreign Affairs of Finland initiated the process of identification and formulation of the BioCAN Programme, in close cooperation with the Governments of Bolivia, Colombia, Ecuador, and Peru. A wide range of key stakeholders were regularly consulted during the process.

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\(^1\) In 2012, the General Secretariat of the Andean Community launched an updated Andean Environment Agenda for 2012-2016.
Consequently, the preparatory phase of the Programme was launched in December 2007 followed by the actual implementation phase from June 2010 to December 2013.
Approximately a third of the whole Amazonian rainforest is located in the territories of Bolivia, Colombia, Ecuador, and Peru.

Around half of the land area within the Andean Community is Amazonian rainforest.

4 Amazon Region of the Andean Community

Amazonia is often associated with Brazil only; however, approximately a third of the vast rainforest is located within the territories of the Andean Community Member States².

Furthermore, Amazonia represents over half of the land area of Bolivia, Colombia, Ecuador and Peru. This area contains an exceptionally varied and rich mosaic of ecosystems, which is due to the micro-climates that have gradually formed on the eastern slopes of the Andean mountain range.

Picture 2: Outline of Greater Amazonia³

² The percentage varies slightly according to the criteria used to delimit the Amazonian basin. The three main criteria are hydrographic, ecological and political-administrative (UNEP & ACTO, 2009).
³ UNEP & ACTO (2009). The illustration is a composite map of the region that was obtained by superimposing geospatial information based on hydrographic, ecological and political-administrative criteria.
As a consequence, these countries record very large numbers of species of vascular plants, birds, amphibians and vertebrates, and are, therefore, recognized as “mega-diverse” countries.

The Amazon region of the Andean Community is characterized also by its cultural diversity, which consists of Indigenous Peoples from many groups, some of whom still live in voluntary isolation, and other forest-dependent communities. On the other hand, migration towards Amazonian urban centres is growing fast, for example, to the towns of Iquitos in Peru, Leticia in Colombia and Santa Cruz de la Sierra in Bolivia.
Biodiversity in the Amazon region is currently being lost at an alarming rate because of deforestation and environmental contamination. This means that many unique species have become extinct and ecosystems irreversibly damaged, which has a negative impact on the local inhabitants’ well-being and livelihoods. At the same time, the traditional knowledge on biodiversity is also threatened.
Paradoxically, the governments belonging to the Andean Community rarely highlight their Amazonian character. The rainforests are considered instead to be an inexhaustible source of oil and natural gas, in particular, with little potential to contribute to the national economic growth in other sectors.

**Picture 6: Rainforests are an important source of commodities for urban people. Ferry unloading cargo in a river port in Iquitos, Peru.**

The BioCAN Programme was designed to support the Ministries of Environment of the Andean Community Member States in their efforts to promote alternative uses of natural resources that contribute to the conservation and sustainable use of Amazonian biodiversity as well as poverty reduction.
The Andean Community (CAN) is a regional organisation that promotes economic and social integration of the four South-American countries: Bolivia, Colombia, Ecuador, and Peru.

The organization came into existence with the signing of the Cartagena Agreement in 1969.

Its headquarters, the General Secretariat of the Andean Community, is located in Lima, Peru.

Find out more information about the Andean Community from www.comunidadandina.org
5  BioCAN – an innovative approach

5.1 Beyond protected areas

To respond to the current environmental challenges in the Amazonian region of the Andean Community, BioCAN proposed to adopt an integrated approach to biodiversity conservation. It means that the Programme didn’t target only protected areas, which would be the traditional method of conservation, but also their interstitial lands, which are often rural landscapes that are managed by local people for their livelihoods.

Picture 7: Protected areas are important but alone are not sufficient to protect Amazonian biodiversity. Park guards building an artificial beach next to the guard post for river turtles to hatch in a safe place. Pacaya Samiria National Reserve, Peru.

5.2 Conservation by means of sustainable development

The Programme was built around the idea that in order to conserve biodiversity, local people must be provided with economic incentives to use the tropical forests sustainably, and they must assume strong ownership of the activities, for example
through equitable biotrade. For that reason, during its implementation BioCAN took political-institutional, environmental, economic, and socio-cultural aspects equally into account, applying an approach that is fully in line with the principles of sustainable development.

5.3 Added value through regional integration

Furthermore, BioCAN also formulated regional guidelines on the different aspects of management of biodiversity that can be applied at the level of the four countries. The regional approach provided an added value, since the countries share the same Amazonian biodiversity, as well as similar pressures and threats.

The Programme activities were identified by the Ministries of Environment and agreed upon in the meetings of a Supervisory Board that consisted of representatives of the four countries in addition to the donor organisation. In this manner, BioCAN sought balance between the national priorities and the possibilities that regional cooperation can offer through common agendas, dialogue, and exchange of experiences between the Member States.

Picture 8: Representatives of ministries and civil society organisations gather in a workshop on wildlife management. September 2012 in Lima, Peru.
5.4 Cross-cutting themes and tools guiding the implementation

To ensure better efficiency and sustainability of its interventions, BioCAN systematically mainstreamed the cross-cutting themes of ecosystem approach,
interculturality, capacity strengthening of stakeholders and civil society participation, as well as gender equity, in its activities.

5.4.1 Ecosystems approach – a conceptual umbrella of BioCAN

The ecosystems approach, the conceptual umbrella of BioCAN, is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It allows biodiversity conservation to be addressed in an integrated framework that recognises humans as part of nature⁴.

In BioCAN, the approach was taken into account at several levels starting from the overall Programme design which recognises that environmental degradation in Andean Amazonia has to be tackled together by the concerned countries. At a more local level, the concept was applied, for example, through the formulation of management plans for the collection of non-timber forest products or hunting and integrated land use planning.

Picture 9: Acarahuasu (*Astronotus ocellatus*) fish fingerling, a native species of Amazonia, farmed by families in the rural communities. Wild fish populations are reserved as genetic banks, which provide an incentive to protect their habitats. At the same time, the food security of the families is improved.

(Photo: Centro Lianas)

Picture 10: Farmers tested feeding the fish with local products such as bananas and termites. The fish grew as well as with industrial feed.

(Photo: Centro Lianas)
Picture 11: New families learn fish farming techniques from experienced communities. To support this process, a guidebook that includes photos and illustrations of the whole process was produced in a project supported by BioCAN.

(Guidebook: Antonio Almeida, Centro Lianas)

Picture 12: A zoning process combining traditional knowledge and scientific methods was carried out in a part of the Indigenous Territory of the Achuar People. The purpose is to maintain the communities’ forest-based livelihoods while generating income. Website of the Tiinkias Ecoturism Center, project supported by the BioCAN Fund.

(www.tiinkias.com)
5.4.2 Interculturality

In the context of BioCAN, mainstreaming interculturality in biodiversity conservation and management was understood as (i) taking into account the different needs of distinct socio-cultural groups; (ii) strengthening the use, protection and recovery of traditional knowledge on biodiversity; and (iii) promoting mechanisms for sharing of traditional and scientific knowledge and their integrated application (knowledge dialogue).

Picture 13: Website of the project that aimed to recover and transfer traditional knowledge on medicinal plants to the young generations in Peruvian Amazonia, supported by BioCAN.

(Internet address: www.proyectosaberes.takiwasi.org)

Interculturality in the context of biodiversity conservation was also debated through a regional radio broadcasting project that produced over 9 hours of audio material as a result of a series of regional seminars and workshops. 16 community radios and 10 national or regional-level indigenous organisations benefitted directly from this action, while the programmes were transmitted through radio networks involving dozens of Bolivian, Colombian, Ecuadorian, and Peruvian channels.)
Dialogue between environmental authorities and civil society organisations was at the centre of BioCAN implementation.

5.4.3 Capacity strengthening of stakeholders

A key purpose of BioCAN was to strengthen the capacities of the environmental authorities with the objective to foster good governance in the Andean Community Member States, with regards to their Amazonian regions.

However, in this respect, BioCAN not only targeted the authorities but also the wider definition of the environmental sector, including civil society, private actors, as well as citizens.

In terms of civil society participation, BioCAN adopted an approach where the capacity strengthening of the ultimate target group, the environmental authorities, was carried out via civil society interventions. In other words, the main lines of action of the Programme were defined by the Ministries of Environment; however, the implementation was outsourced to civil society organisations specialised in Amazonian environmental management. This system created a win-win situation where the capacity of both parties was strengthened.
and highly fruitful mechanisms of intersectorial and multidisciplinary dialogue and information exchange were created, both at national as well as regional levels.

BioCAN contributed significantly to the strengthening of civil society organisations that are specialised in Amazonian natural resource management allowing them to carry out proactive and structured advocacy

Moreover, as an additional and concrete instrument to promote the proactive capacity of local actors, BioCAN implemented a financial mechanism called the BioCAN Fund, to finance civil society initiatives focused on sustainable use and conservation of biodiversity in the Andean Amazonia.

The BioCAN Fund was successful in strengthening Amazonian indigenous community-based organisations’ initiatives for improving the sustainability of their livelihoods based on natural resources
Picture 15: The Peruvian Amazon Research Institute to carried out a community-based fish fingerling production project on behalf of the Ministry of Environment of Peru. The arapaima fish (*Arapaima gigas*) is the largest freshwater fish on Earth and highly valued in the markets by fish farmers and final consumers.

(Photo: Guarango)

Picture 16: Rainforest communities, in this case the indigenous Shipibo-Conibo people, play a key role in conserving the natural habitats of the arapaima fish, which are important for maintaining the genetic variation of the populations in captive breeding. Extract from the guidebook for the management of arapaima.

(Guidebook: Peruvian Amazon Research institute IIAP)
5.4.4 Gender equity

The role of women in the Amazonian context is highly relevant since they possess ancestral knowledge on the uses of biodiversity, which is in many cases different to men’s understanding of the surrounding environment and its resources.

Therefore, it was important for BioCAN to promote gender equity by creating favourable conditions and equal opportunities for the participation of women, (including indigenous women), in order to improve their economic, social, political and cultural conditions.

Concrete actions included support to women’s productive organisations, recording their traditional knowledge on biodiversity, consultations in bottom-up processes of land use planning, and participation in capacity building processes on access to genetic resources and wildlife management, among others.

Picture 17: Indigenous midwives in a workshop of which aim was to register and recognize their traditional knowledge on the use of medicinal plants during pregnancy and labour

(Photo: Takiwasi)
Picture 18: A book on the indigenous women’s traditional knowledge on the use of medicinal plants was published as a result of the workshops.

**BioCAN results in numbers:**

**Cross-cutting themes and tools**

- Over 5000 local people benefitted directly from the BioCAN Fund, of which 99% are indigenous and 51% are women
- 18 Indigenous Peoples involved directly in the implementation of BioCAN’s activities
- 26 projects implemented by over 30 Bolivian, Colombian, Ecuadorian, and Peruvian civil society organisations contributing directly to the national and regional environmental political agendas
- 16 community radios and 10 indigenous organisations as direct beneficiaries of a radio broadcasting project, that produced over 9 hours of radio debates
6 Main results of BioCAN

6.1 Capacity strengthening on access to genetic resources

By implementing the “Capacity Strengthening Plan on Access to Genetic Resources and the Associated Traditional Knowledge” BioCAN sought to strengthen key actors’ capacities to carry out negotiations on the topic, not only within the Andean Community but also in international arenas.

National competent authorities, academic and indigenous organizations, as well as different governmental agencies, participated in a series of training courses and seminars, and they were provided with up-to-date information packages, such as the Guide to Andean Negotiators on Access to Genetic Resources and Related Topics.

Picture 19: Representatives of indigenous organisations in a regional workshop on access to genetic resources and protection of traditional knowledge from the Indigenous Peoples’ perspective. The event was organised in collaboration with the World Intellectual Property Organisation (WIPO). Lima, Peru, April 2013.

(Photo: Andean Community)
One of the key achievements was the **reactivation of the Andean Committee on Genetic Resources**, which is a high-level political body that reviews common rules and laws regulating access to genetic resources in the Andean Community. This result is especially important given the intense global debates in the context of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity.

**Picture 20: Cover of the publication that compares three key international agreements relating to genetic resources produced by BioCAN**

BioCAN gave special importance to the rights of Indigenous Peoples in the protection of their traditional knowledge on biodiversity.

A significant outcome of the implementation of the Capacity Strengthening Plan was the **formulation of a revised text of the Andean Decision 391 on Access to**
Genetic Resources and Benefit Sharing\textsuperscript{5} that integrates recent key components of the Nagoya Protocol, by the Member States.

"BioCAN taught us a lot about managing regional processes within the Andean Community"

I consider that having been part of BioCAN, the Ministry of Environment and Sustainable Development of Colombia learned very important and interesting lessons on the implementation of regional programmes. Two positive experiences are definitely (1) the work on Andean Decision 391 on Access to Genetic Resources and (2) the efforts to control illegal wildlife trafficking in the Andean countries. Both actions were conducted jointly by the four Member States. We expect them to continue despite the fact that the Andean Integration System is currently going through a process of reengineering. As a general recommendation, I think there are still opportunities to improve coordination mechanisms between actors both at regional and national levels.

Javier Ernesto Camargo Cubillos, Advisor, Office of International Affairs, Ministry of Environment and Sustainable Development, Member of BioCAN Supervisory Board as the representative of Colombia from 2010 to 2011.

\textsuperscript{5} Andean Decisions are laws that become binding for Member States as of the date they are approved by the Andean Council of Foreign Ministers or the Commission of the Andean Community (http://www.comunidadandina.org/ingles/normativa/ande_trie2.htm).
6.2 Capacity strengthening on wildlife management

To address the complex setting of wildlife management in the Andean Community, BioCAN implemented a Capacity Strengthening Plan that helped to increase, in the political agendas of Bolivia, Colombia, Ecuador, and Peru, the importance of good practices of wildlife management and combating illegal trafficking of wild species.
As a result of implementing the Capacity Strengthening Plan, the abilities of national authorities and other stakeholders, particularly specialised civil society organisations, were developed. This outcome was achieved by the organisation of training events (both in-person and online) and joint working sessions among specialists from different disciplines to formulate together a range of technical
manuals and guidelines. These documents covered topics such as the management of certain species of Amazonian wild animals, and finding solutions to conflicts between farming activities and wildlife.

The Ministries took real ownership of the above mentioned technical guidelines by incorporating previously unanticipated follow-up activities in their respective national agendas.

These processes that were facilitated by BioCAN allowed the creation of new mechanisms for collaboration and exchange of information between the participants and institutions that will contribute to tackling illegal cross-border trafficking of wildlife.

As a result of BioCAN, the national authorities of the four countries are better prepared to combat illegal trafficking of Amazonian wildlife, owing to new collaboration networks and wildlife management manuals.

Picture 23: Representative of Rural Police of Colombia intervening on the issue of illegal wildlife trafficking
At the regional level, BioCAN, together with the Member States, formulated an outline of an Andean Decision that proposes concrete commitments to combat illegal wildlife trafficking in the Andean Community.

**BioCAN proposed a new Andean Decision to combat illegal trafficking of wildlife in the region.**

Furthermore, illegal wildlife trafficking was integrated as a part of BioCAN’s awareness campaign called “Our Amazonia: a privilege that we have”. During the campaign, a spot advertisement on trafficking of wild animals directed to the general public was broadcasted in cinemas across the four countries.

**Picture 24: Still image from the spot advertisement on illegal trafficking of wild animals as part of BioCAN’s awareness raising campaign**

Wildlife management is once again a priority for the environmental authorities in the Andean Community.

(Spot: Soluciones Prácticas)
Picture 25: Wild animals are not pets or souvenirs. Awareness raising materials directed for the general public produced in the context of the capacity building activities on wildlife management.
“I want to be free”. Drawing submitted in the poster competition for schools in Bolivia, Colombia, Ecuador, and Peru. The children were requested to present Amazonian animals in their natural habitat.

(Drawing by Jorge Alonso Cárdenas Custodio, Peru)
BioCAN results in numbers:

Capacity Strengthening Plan on Wildlife Management

- The capacity of 270 women and 336 men, identified as key actors in the topic in the 4 countries, strengthened
- 4 regional capacity building workshops organised
- 5 comprehensive guidebooks on the different stages of wildlife confiscation, formulated and validated in 4 national workshops
- 1 online forum comprising of 3 modules organised
- 3 sets of technical guidelines on wildlife management formulated

6.3 Awareness Raising Campaign “Our Amazonia: a privilege that we have”

BioCAN carried out an extensive awareness raising campaign among the general public of the Andean Community. The main slogan of the campaign was “Our Amazonia: a privilege that we have” and it highlighted the importance of the Amazon region of Bolivia, Colombia, Ecuador, and Peru, among the citizens.

The campaign was a true success given that nearly 20 million people were informed through the activities, representing approximately 20% of the total population of the Andean Community.
The activities included audio-visual products, such as a 25 minutes long documentary film on sustainable use of natural resources by local people in Andean Amazonia, a photo bank of hundreds of images and video footage, as well as radio and TV spots. Photography and children’s drawing contests attracted a large number of participants and created active exchanges in the social media. In turn, BioCAN distributed educational and outreach products, such as posters, postcards and notebooks in internal and external events. The more specialised public received detailed information on the implementation of BioCAN’s technical activities via online newsletters.

The Campaign “Our Amazonia: a privilege that we have” reached up to 20 million citizens, which represents nearly 20% of the total population of the Andean Community.
The Ministry reached out to the public with a different face, a kind one

"The campaign ‘Our Amazonia: a privilege that we have’, greatly assisted the Ministry of Environment of Peru to attract attention to the Amazonia both within and outside the institution. We have made contacts with citizens through positive messages, and reached an incredibly wide and large audience, including children and youth. The campaign has enabled us to refresh the image of the Ministry, and most importantly, the general public is now more aware of the importance of the Amazonia to our country” (Álvarez Alonso, 2013).

(Photo: Lilia Campos)

José Álvarez Alonso, Director for Biodiversity of the Ministry of Environment of Peru.

Picture 28: In each of the four countries, a painting of a local artist representing Amazonia was used as the main image in the visibility materials.

Bolivia. Artist: Eloy Añes
Colombia. Artist: Confucio Hernández

Ecuador. Artist: Carlos Monsalve

Peru. Artist: Rember Yahuarcani
Conserving biodiversity through biotrade

One of the strategies of BioCAN to **conserve biodiversity was by its sustainable utilisation and commercialisation**. As a result, BioCAN strengthened 15 value chains emphasising good management practices, fair and equitable distribution of benefits, and technological innovation.

The value chains included wild fruits such as camu camu (*Myrciaria dubia*), products based on palm fruits (*Euterpe oleracea, Oenocarpus bataua, Mauritia flexuosa*), latex from the Sangre de Drago tree (*Croton lecheri*), and the bark of the Ishpink tree (*Ocotea quixos*). These are Amazonian wild species, many of which are used for producing cosmetic products based on natural ingredients.

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**BioCAN results in numbers:**

Awareness raising campaign ‘Our Amazonia: a privilege that we have’

- Over 700,000 airings of the spots on TV and radio channels
- Over 52,000 people were talking about the campaign on Facebook
- Over 35,000 viewings of different videos in YouTube
- Nearly 400 mentions in printed media
- Approximately 9,000 people visited the exhibitions
- Over 34 different items of visual materials produced
- 9 Audio-visual products produced
- A bank of over 800 photos and over 300 video footages created

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6.4 Conserving biodiversity through biotrade

One of the strategies of BioCAN to **conserve biodiversity was by its sustainable utilisation and commercialisation**. As a result, BioCAN strengthened 15 value chains emphasising good management practices, fair and equitable distribution of benefits, and technological innovation.
Some value chains focused on cultivated products such as copoazú (*Theobroma grandiflorum*) and cocoa (*Theobroma cacao*). BioCAN provided support also for controlled commercialisation of caiman (*Caiman yacare*) skins and some Amazonian fish species (mainly *Arapaima gigas* and *Piaractus brachypomus*), ecotourism, and sustainable production of handicrafts made of chambira (*Astrocaruym chambira*) palm fibres.

**BioCAN strengthened 15 value chains of Amazonian natural products**

Picture 29: The Moxo indigenous people hunt caimans (*Caiman yacare*) and sell the skins to earn income. BioCAN supported a project that helped the hunters to agree on better management plans to improve the sustainability of the activity.

(Photo: Natalia Aguilar)
Picture 30: All the hunters have a licence and a specific quota. Thanks to the project, the hunters established a new association, which received capacity building to add more value to the products before selling them to the middlemen.
Picture 31: BioCAN supported community-based production of aguaje (*Mauritia flexuosa*) palm oil in Peruvian Amazonia. The first batch was exported to France to a company that provides high-quality raw materials for the production of natural cosmetics.

(Photo: Latitud Sur)

Picture 32: Young women and men from the beneficiary community were trained to operate the oil production plant, which allows value to be added to the natural resources at the village level while managing the resource sustainably.

(Photo: Latitud Sur)
Picture 33: Guidebook for the sustainable harvesting of ungurahua (*Oenocarpus bataua*) palm fruits in Ecuador produced in a project supported by BioCAN.

(Fundación Chankuap)

Picture 34: The oil extracted from the fruits of the ungurahua palm is used in the production of natural cosmetics that comply with the standards of the FairTrade Organisation.

(Photo: Fundación Chankuap)
Based on the field experiences, BioCAN produced two sets of regional recommendations; one on the fair and equitable distribution of benefits and the other on good management practices of natural resources for commercial purposes. These guidelines were formulated in dialogue with key public, private and civil society stakeholders in the context of a series of regional seminars, after which they were made available to the Member States for their inclusion in the respective national regulations.

Picture 35: Official of the Ministry of Environment of Peru in a meeting regarding the regional guidelines on the fair and equitable distribution of benefits in the Amazonian production chains.

Two sets of regional guidelines on good practices in biotrade with biodiversity-based products were formulated together with key stakeholders

The biotrade initiatives that BioCAN supported progressed in aspects such as more efficient use of raw materials, reducing the pressure on wild populations of
Women’s organisations were a priority in the strengthening of value chains.

the harvested products, generating or increasing added value, support and recognition of the roles of the actors involved (especially women), and strengthening local capacity.

Picture 36: Thanks to the support from BioCAN, the Waorani Women’s Association of Ecuadorian Amazonia managed to complete the process of signing a contract for the supply of organic Fair Trade cocoa.

![Image of the product: WAO Dark Chocolate with Yasuni 70% cocoa beans.]

Picture 37: Learning how to produce organic fertiliser. Waorani women lead the production of cocoa through their formally established association AMWAE.

(Photo: Walker Vizcarra)
BioCAN also supported several other local projects with less emphasis on the part of commercialisation of biodiversity-based products, prioritising rather the improvement of the living conditions of the beneficiary families. These projects included community-based fish farming, systematisation of traditional knowledge on medicinal plants, and legal timber harvesting.

"The most important results of the project include strengthening of our organisation and the organic cocoa value chain, as well as the reduction in hunting and fishing for sale".

The main conclusion of the internal group evaluation of the project supported by BioCAN and implemented by the indigenous organisation Waorani Women’s Association of the Ecuadorian Amazonia (AMWAE).

Manuela Ima, the Director of AMWAE in 2013.

(Photo: Traffic)
Picture 38: Carpenters belonging to the ethnic group of the Shuar processing legally harvested timber in Ecuadorian Amazonia.

(Photo: Petra Mikkolainen)

Picture 39: The carpentry produces furniture from wood that is harvested from the Shuar Indigenous Territory.

(Photo: Petra Mikkolainen)

Picture 40: BioCAN supported a project that tested an integrated approach of registering traditional knowledge on the use of medicinal plants in Peruvian
Amazonia. Copies of all the recordings were returned to the communities. Sitting on the left, Don Edrulfo Tuanama and Doña Flor de María Tuanama, both highly respected traditional healers in San Martín, Peru.

(Photo: Ana María Perez Villareal)

**BioCAN results in numbers:**

**Biotrade and sustainable use of biodiversity**

- 15 value chains strengthened involving approximately 1800 direct beneficiaries at local level
- 15 local management plans formulated
- 9 guidebooks or manuals on sustainable harvesting or processing of raw materials produced and used by the beneficiaries
- 16 items of traditional knowledge on the use of biodiversity-based products (such as medicinal plants and handicrafts) systematised for the use of the beneficiary communities and/or dissemination, including the publication of 2 books and 3 videos
6.5 Integrating biodiversity conservation into territorial planning

In the Andean Community countries, except in Peru, land use planning is not the responsibility of the Ministries of Environment, but it belongs to other entities with which the environmental authorities do not necessarily have a close relationship. Moreover, in Bolivia, Colombia, Ecuador, and Peru, there is considerable diversity among the different countries in terms of methodologies and regulations relating to land use planning. Therefore, BioCAN made a strong effort to support interagency cooperation during the implementation of the activities.

In this situation, **BioCAN focused on improving the compatibility between the environmental and land use planning policies.** Therefore, two groups of activities were prioritised, (i) enhancing the integration of biodiversity conservation into land use planning processes, including strengthening the methodologies of zoning; and (ii) harmonizing the large variety of tools and techniques as well as regulations that are currently being applied to improve land use planning in the four countries.

**BioCAN strengthened the capacities of 89 key government officials of the four countries and from different sectors in integrated and participatory land use planning**
As a result, it has been possible to carry out a land use planning process in four territories covering a total land area of approximately 57,000 km². These pilot projects benefited indirectly more than 270,000 people who live inside of them. They also helped to develop or complement participatory methodologies in zoning and land use planning in the four countries, integrating biodiversity conservation as a cross-cutting objective.

In addition, in Bolivia BioCAN supported an indigenous organisation to implement a project that established a shared management model for a part of a national park overlapping an indigenous territory. Similarly, in an indigenous territory in Ecuadorian Amazonia, a zoning process was carried out combining traditional knowledge and current scientific methods.
Picture 42: Villagers belonging to the ethnic group of Leco de Apolo discussing a shared management model between a national park and their territory

(Photo: Natalia Aguilar)

(Photo: Natalia Aguilar, Soluciones Prácticas)

(Photo: Natalia Aguilar, Soluciones Prácticas)
"Thanks to BioCAN, we progressed in the integration of environmental management with land use planning"

The Guidelines that were formulated in the context of BioCAN for the integration of environmental management and land use planning have raised great expectations at the level of the central government. The national authorities now have the tools to guide the Autonomous Decentralized Governments in the formulation of their local Land Use Plans in a way that environmental considerations are integrated into those Plans. This is a step forward so that the Autonomous Decentralized Governments can apply better practices regarding biodiversity, climate change and environmental quality. It is considered that these achievements have a very encouraging and positive potential, thinking about sustainability in the medium and long term.


BioCAN results in numbers:

Integrating biodiversity conservation to land use planning

- A land use planning process that integrates biodiversity conservation carried out in 4 territories covering approximately 57,000km² and benefitting indirectly more than 270,000 people
- A capacity building plan on integrated land use planning implemented, including 3 online training courses
- A set of regional guidelines on integrated land use planning formulated in a participatory manner as a result of 3 workshops
6.6 Information – the key to decision making

Production of up-to-date quality information on the biodiversity of the Amazonia of Bolivia, Colombia, Ecuador, and Peru represents huge challenges given the fact that the data existing in the four countries is not compatible with each other, neither from the technical nor from the systems point of view.

As a response, BioCAN established a new structure called the Regional Amazonian Environmental Information Platform (PIRAA) that contributes to the decision making of public and private actors involved in the management of biodiversity in the Andean Amazonia. In Ecuador and Bolivia totally new equipment and software were installed, while in Colombia and Peru existing systems were strengthened.

A new information system on Amazonian biodiversity was created with nodes in the four Member States for the use of the decision makers

Picture 43: Portal of the Regional Amazonian Environmental Information Platform PIRAA with links to the national information systems.
The definition of contents and operating rules were developed by a regional technical group, allowing exchange of experiences and knowledge on the subject between the actors who manage information on Amazonian biodiversity in the four countries. In addition, the future users, mainly government officials were trained in the various aspects of information management, such as the most important international standards.

**Capacity strengthening activities allowed the creation of a network of managers of information in the four Member States**

“*We assumed leadership through information management*”

Thanks to BioCAN, the Plurinational Information System on the Biodiversity of Bolivian Amazonia was created. It is a very concrete and extremely important step forward since it has allowed the Ministry of Environment and Water to assume the leadership of environmental information management in Bolivia. Furthermore, now we can coordinate with other information systems at the national level as well as with the Regional Amazonian Environmental Information Platform covering the four countries of the Andean Community. It is a great tool with many benefits for the country and for the sector.

Dedy Gonzales Herrera, Former Director General of Biodiversity and Protected Areas of the Ministry of Environment and Water of Bolivia
“Thanks to BioCAN, we significantly improved the coordination between different databases on biodiversity”

The process of establishing the Platform on the Peruvian Amazonia catalyzed a process of dialogue between the Ministry of Environment and the scientific and research institutions that manage environmental information in Peru. The practical contribution is that, on the one hand, the institutions now interact with each other and, on the other, some of the databases that they manage are now interconnected. In addition, the Platform coordinates with information systems covering not only the Peruvian Amazonia (SIAMAZONIA and PromAmazonia) but also with the Regional Amazonian Environmental Information Platform, covering Bolivia, Colombia, Ecuador and Peru. The Ministry of the Environment of Peru is highly motivated to not only maintain but also to expand the system in the future.

José Álvarez Alonso, Director for Biodiversity of the Ministry of Environment of Peru.

Picture 44: Launching event of the Peruvian Amazon Information Platform in the Ministry of Environment of Peru.

(Photo: MINAM)
BioCAN results in numbers:

Information system on Amazonian biodiversity

- Creation of a regional information system with one central and four national nodes
- The following data inserted in the information system:
  - 625 metadata on biodiversity
  - 1027 species records following international standards
  - 315 descriptions of experiences relating to integrated land use planning
  - 81 descriptions of experiences and 94 organisations relating to biotrade and sustainable use of biodiversity
  - 122 descriptions of biodiversity-based products
- 100 units of geographical information shared between the Member States
7 Reflections for the Future

BioCAN, along with other projects and programmes, has contributed to the conservation of biological and cultural diversity of the Amazonia. Based on the experiences and lessons learned, it can be concluded that:

- Regional integration in the environmental sector is worth investing in;
- Institutional strengthening of decentralised governments brings encouraging results;
- Concrete mechanisms that create dialogue between the public sector and civil society create win-win situations and contribute to building democracy and good governance.

![Radio forum between environmental authorities, indigenous organisations and local Amazonian radio channels](Photo: ALER)

For the future, BioCAN recommends continuing to invest in the following processes:

- Foster biotrade as a viable strategy of improving the livelihoods of Amazonian local communities;
• Strengthen wildlife management with a regional approach and preferably through transboundary actions;
• Continue to promote the documents and publications that BioCAN produced regarding access to genetic resources and associated traditional knowledge;
• Encourage government decentralisation and promote stakeholder dialogue in the field of land use planning;
• Continue to support the information exchange networks created by BioCAN.

Picture 46: Selling wild birds in a market in Pucallpa, Peruvian Amazonia.

(Photo: P. Mendoza, WCS)

Picture 47: Schoolgirls belonging to the Amazonian tribe Machiguenga.

(Photo: Enzo Amado Blancas)
8 BioCAN Implementing Organisations

8.1 Regional projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Implementing organisations</th>
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<tr>
<td>Capacity Strengthening Plan for Amazonian Wildlife Management in the Andean Community</td>
<td>Wildlife Conservation Society (WCS)</td>
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<tr>
<td>Capacity Strengthening Plan on Access to Genetic Resources and the Associated Traditional Knowledge</td>
<td>Sociedad Peruana de Derecho Ambiental (SPDA)</td>
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</tbody>
</table>
| Implementation of the Communication and Visibility Plan of BioCAN Programme. | Soluciones Prácticas
|                                                                        | Soluciones Prácticas of Peru and Bolivia                        |
|                                                                        | Fundación Natura                                                  |
|                                                                        | Asociación Latinoamericana de Educación Radiofónica (ALER)       |
|                                                                        | GUARANGO Cine y Video                                             |
| Communication for the Promotion and Integration of the Andean Amazonia regarding Biodiversity and Interculturality in Bolivia, Colombia, Ecuador and Peru. | Asociación Latinoamericana de Educación Radiofónica (ALER)
|                                                                        | Comunicadora Nacional de Radio de Perú (CNR)                     |

8.2 Bolivia

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<tr>
<td>Plan for the Establishment of the Biodiversity Information System of Bolivian Amazonia</td>
<td>Instituto de Desarrollo Regional (IDR) of the Universidad Mayor de San Andrés (UMSA)</td>
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<tr>
<td>Strengthening integrated municipal planning by incorporating components of biodiversity conservation in the process of formulating the Municipal Development Plan, the pilot municipality of Apolo in the Department of La Paz, Bolivia.</td>
<td>Mancomunidad de Municipios del Norte Paceño Tropical</td>
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<tr>
<td>Generating New Business Partnerships and Strategies for the Integrated and Sustainable Management of Wild Caimans (<em>Caiman yacare</em>),</td>
<td>Instituto de Desarrollo Regional (IDR) of the Universidad Mayor de San Andrés (UMSA)</td>
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</table>
with the Indigenous Organisations that Implement the Strategy for the Reorientation of the National Programme for the Conservation and Sustainable Use of Caimans.

Implementation of the Shared Management Model Built between the Central Indígena del Pueblo Leco de Apolo and the Madidi National Park and its Integrated Management Natural Area

Central Indígena del Pueblo Leco de Apolo (CIPLA)
Wildlife Conservation Society (WCS)

### 8.3 Colombia

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<td>Definition and Structuring of the Regional Amazonian Environmental Information Platform (PIRAA) by Strengthening the Sub-national Node of Colombia: Territorial Environmental Information System of Colombian Amazon (SIATAC)</td>
<td>Instituto Amazónico de Investigaciones Científicas SINCHI</td>
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<tr>
<td>Proposal for the Zoning and Environmental Land Use Planning of the Amazon Forest Reserve (2nd Act of 1959) in the Sector of Trapecio Sur (between Amazon River and Pureté River) in the Department of Amazonas.</td>
<td>Instituto Amazónico de Investigaciones Científicas SINCHI</td>
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<tr>
<td>Policy Formulation for the Management of Biodiversity in the Colombian Amazon</td>
<td>Instituto Amazónico de Investigaciones Científicas SINCHI</td>
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<tr>
<td>Strengthening the Value Chain of Amazonian Fruits through Sustainable Management and Use of Three Promising Species by Local Communities in the South of the Trapecio Amazónico.</td>
<td>Instituto Amazónico de Investigaciones Científicas SINCHI</td>
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### 8.4 Ecuador

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<tr>
<td>Capacity Strengthening Plan of the Sub-national Node of the Regional Amazonian Environmental Information Platform (PIRAA) in Ecuador</td>
<td>Consorcio para el Desarrollo Sostenible de la Ecorregión Andina CONDESAN Escuela de Ciencias Biológicas, Pontificia Universidad Católica del</td>
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<tr>
<td>Project</td>
<td>Implementing organisations</td>
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<tr>
<td>Definition of Environmental Guidelines for their Incorporation into Development and Land Use Plans (PDOT) at the Level of Provincial, Municipal and Parochial Autonomous Decentralised Governments (GAD).</td>
<td>Ecuador (ECB-PUCE)</td>
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<tr>
<td>Strengthening of Environmental Governance in the Territorial Planning of Napo</td>
<td>Conservación Internacional (CI)</td>
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<tr>
<td>Strengthening of the Value Chains of Cosmetics and Other Products Derived from Biodiversity in the Province of Morona Santiago</td>
<td>Consorcio para el Desarrollo Sostenible de la Ecorregión Andina CONDESAN Escuela de Ciencias Biológicas, Pontificia Universidad Católica del Ecuador (ECB-PUCE)</td>
</tr>
<tr>
<td>Fish Farming with Native Species in Indigenous Communities in the Ecuadorian Amazon</td>
<td>Corporación de Promoción de Exportaciones del Ecuador (CORPEI) Fundación Chankuap</td>
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<td>Conserving the Natural and Cultural diversity in the Achuar Territory for the Development of Ecotourism</td>
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<tr>
<td>Strengthening Sustainable Management of Forest of the Cordillera Condor in the foothills of the Rio Santiago through the Asociación Artesanal Agroforestal KANUS (ASOKANUS)</td>
<td>Fundación Pachamama</td>
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<tr>
<td>Generating Alternatives for the Sustainable Use of Biodiversity and Sustainable Management of Wildlife in the Waorani Ethnic Territory.</td>
<td>Asociación Artesanal Agroforestal Kanus ASOKANUS</td>
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<tr>
<td></td>
<td>Unión Internacional para la Conservación de la Naturaleza (UICN) The Wildlife Trade Monitoring Network TRAFFIC Asociación de Mujeres Waorani de la Amazonía Ecuatoriana (AMWAE),</td>
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<tr>
<td>Topic</td>
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<tr>
<td>Strengthening of Territorial Planning in Peruvian Amazonia</td>
<td>Instituto de Investigaciones de la Amazonía Peruana (IIAP)</td>
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<td>Competitiveness and benefit sharing in the value chain of camu camu</td>
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<td>(Myrciaria dubia HBK Mc Vaugh) in Loreto, Peru.</td>
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<tr>
<td>Sustainable management of paiche fingerlings (Arapaima gigas)</td>
<td>Instituto de Investigaciones de la Amazonía Peruana (IIAP)</td>
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<td>in lentic environments with the participation of</td>
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<td>indigenous communities in the regions of Ucayali and</td>
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<td>Loreto, Peruvian Amazonia.</td>
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<td>Recovery of Traditional Knowledge on Medicinal Plants, Systematization</td>
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<tr>
<td>resource conservation and income generation for the</td>
<td>ProNaturaleza</td>
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<tr>
<td>people involved.</td>
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The Western part of Amazonia that is located mainly in the territories of Bolivia, Colombia, Ecuador, and Peru is characterised by its extraordinary biological diversity. In addition, the environmental services that the vast area provides, especially as a catchment area of the Amazon River, have enormous importance to millions of people living downstream.

However, the habitats are currently being lost at an alarming rate because of deforestation and environmental contamination. Many unique species have already become extinct and ecosystems irreversibly damaged, which has a negative impact on the local inhabitants’ well-being and livelihoods. At the same time, the traditional knowledge on biodiversity is also threatened.

The Biodiversity Programme for the Amazon Region of the Andean Community – BioCAN was a joint initiative of the Andean Community General Secretariat and the Ministry for Foreign Affairs of Finland that aimed at responding to the current environmental challenges in the region. Its objective was to promote sustainable development in the Amazon of Bolivia, Colombia, Ecuador, and Peru through strengthening the environmental authorities’ and civil society actors’ capacity in biodiversity conservation and management.

This report is a summary of the main results obtained by the BioCAN Programme between June 2010 and December 2013.