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Conservation and sustainable use of biodiversity and natural resources for community well-being

The example of Ecuador's Napo Province

Summary and key figures

During the 2015–2020 period, the Ecuador country Office of the Food and Agriculture Organization of the United Nations (FAO) implemented the “GEF Conservation and Well-being in Napo project”. This initiative was part of an agreement between the provincial government of Napo and Ecuador’s Ministry of Environment, and was funded by the Global Environment Facility (GEF) with contributions from public and private organizations and civil society. Working directly with almost 2 800 families grouped in 16 associations and 25 indigenous and farming communities, the project helped to make environmental conservation into a development opportunity. Thanks to strong inter-institutional cooperation, and in partnership with five municipalities in the province of Napo, excellent results were achieved in terms of conservation, namely: i) the establishment of conservation agreements for 7 369.3 hectares and about 57 000 hectares under plans for co-management;

ii) a 17 percent decrease in the provincial rate of deforestation; and iii) estimated emissions reduction of 3 998 945 Mg CO₂eq and an increase in carbon sequestration of 57 990 Mg CO₂eq. In addition, progress was made in production sustainability: i) 1 370 families incorporated Good Agricultural Practices (GAP) in almost 2 000 hectares of cocoa, naranjilla or lulo (*Solanum quitoense*), and pasture, and were able to add value in these production chains (fine flavour cocoa with organic certification, naranjilla juice, among others); and ii) seven initiatives of sustainable community tourism and bio-enterprises related to five products (guayusa, vanilla, orchids, palm fiber and tikaso) were strengthened, which generated an increase in income of between 25 and 100 percent for producers. This allowed them to cover their production costs, ensuring better profitability indicators in the medium term.

Implementation period:	April 2015 – December 2019, extended to October 2020.
Location:	Ecuador, Napo Province.
No. of direct participants:	2 762 families comprised of 8 323 people.
No. of indirect participants:	104 000 people (population of Napo Province).
Executors:	FAO in coordination with the Napo Provincial Autonomous Decentralized Government (GAD) and the Ministry of the Environment of Ecuador (MAE).
Financing institutions:	Global Environment Facility (GEF) / MAE / Provincial and Cantonal GAD / FAO / German Technical Cooperation Agency (GIZ) / United States Agency for International Development (USAID) / Rainforest Alliance, among others.
Partners:	GIZ / Municipalities of Quijos, El Chaco, Archidona, Tena and Arosemena Tola.
Total investment:	USD 11.1 million
GEF financing:	USD 2.6 million
Additional resources mobilized:	USD 8.5 million
(cash and in-kind, projected)	
Key words:	Conservation, sustainable use, well-being, traditional practices, indigenous peoples.



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Context

Wealth of biological and cultural diversity at risk

The Napo Province, where about 104 000 people live (2010) in an area of 13 300 km², is located in the transition zone between the Eastern Andes and the upper basin of the Amazonian plain of Ecuador, with scenic and biodiversity wealth that is among the highest in the region. To conserve this biodiversity and the ecosystem services generated there, more than 70 percent of the province's territory is protected under different conservation categories (National System of Protected Areas, Protected Forests or State Heritage Forests).

To this biodiversity is added the important cultural diversity of the peoples and ethnic groups settled in this area, such as the Amazon Kichwa, Quijos and Waoranis ethnicities, which live in specific and unique biocultural zones.

Productive activities are concentrated in about 14 percent of the rural territory of the province. These correspond mainly to cash crops such as cocoa, naranjilla, coffee and dairy farming. The traditional production system – the *chakra* – also contains important agro-biodiversity with its products used both for self-consumption and for sale.

Despite its ecosystem and cultural potential, Napo Province is facing a complex problem that puts the state of its natural resources at risk: its deforestation rate is 0.35 percent, and between 40 percent and 60 percent of agricultural areas have degraded soils. In addition, in socioeconomic terms, it has very high levels of poverty (77.1 percent of inhabitants live in poverty and 42.8 percent in extreme poverty). Finally, in the institutional sphere, the weakness or insufficient capacity of public entities, local governments and various civil society organizations to adequately manage natural resources have been widely recognized.

To confront and reverse this situation, during the period 2015–2020 FAO is executing the “GEF Napo Conservation and Well-being project”, an

initiative developed under the coordination of the Provincial Government of Napo, Ecuador's Ministry of the Environment and FAO. It is financed by GEF with the collaboration of the German Technical Cooperation Agency (GIZ), the five municipalities of the province and other public, private and civil society organizations.

Napo Province Key figures

Socioeconomic

- » Rural population: 56% (2010)
- » Indigenous population: 56.8% (2020, self-identified)
- » Poverty (Unmet Basic Needs-UBN): 77.1%
- » Extreme poverty (UBN): 42.8%
- » Illiteracy rate: 6.3%
- » Rate of women who have suffered violence: 65%

Environmental

- » The rate of deforestation is 2 932 ha per year (99% in agricultural areas)
- » 40% to 60% of agricultural soils are degraded
- » Biodiversity: 6 000 species of vascular plants; 89 species of endemic plants; 82 mammal species; 28 species of bats; 13 species of rodents; 14 species of carnivores; 872 bird species; 180 species of amphibians; and more than 90 species of reptiles

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Challenges

Address the environmental and development objectives simultaneously

The project faced two closely related challenges:

- » In terms of the global environmental dimension, it seeks to promote the conservation and sustainable use of biodiversity, stop and reverse land degradation and deforestation, and improve forest management in the province, through the implementation of participatory environmental governance.
- » In terms of the development dimension, it focuses on increasing and improving the production of goods and services from agriculture, livestock and forestry, incorporating principles of social, economic and environmental sustainability in production systems and value chains, promoting biocommerce and sustainable community tourism as new sources of income.



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Participants

Indigenous organizations and farmers' associations representing more than 8 000 people

- » 25 indigenous communities (mainly of the Kichwa and Kijus ethnic groups) and 16 cooperative initiatives.
- » 2 762 families comprised of 8 323 people:
 - 50.8 percent men, 49.2 percent women.
 - 80 percent indigenous, belonging mainly to the Amazon Kichwa ethnic group and, to a lesser extent, to the Kijus and Kichwa peoples of Oyachachi.



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Description

Coordinate support for environmental protection, economic development and institutional strengthening

The project has been implemented based on seven important cross-cutting approaches: participation, gender, the combination of generations, interculturality, sustainable landscapes, value chains and the institutionalization of actions and methods. On this basis, three focus areas have been developed:

- » **Institutional strengthening and good environmental governance** for the incorporation in territorial planning of strategies for the conservation and sustainable use of renewable natural resources, based on an ecosystem approach.
- » **The development of landscapes and sustainable production**, through the design and promotion of landscapes and agrosilvopastoral production systems that include the sustainable management of water, soil and forests, and that allow the improvement of the living conditions of farming families.
- » **The promotion of bio-enterprises (biocommerce and sustainable community tourism)** as a strategy to improve the livelihoods of local communities, safeguarding biodiversity and the sustainable management of natural resources.

Main support actions

1 Institutional strengthening and good environmental governance

Incorporation of environmental criteria in territorial planning and management at different levels of local government, through:

- » The development of a participatory strategy for the coordination committee of the inter-institutional management of the Sumaco Biosphere Reserve (RBS).
- » The update of the Napo Development and Land-Use Plan (PDyOT) 2019–2023.
- » The drafting of the province's ecological-economic zoning map.
- » The development of the provincial information system for the management and administration of natural resources.
- » Strengthening the abilities and capacities of decision makers, technicians, and community leaders.

Actions aimed at mobilizing additional resources, through:

- » Coordination and support for national incentives, such as the Socio Bosque program, the Productive Transformation Agenda of the Amazon (ATPA) and, particularly, the Napo Provincial Government's Production Directorate.
- » Support for the Fund for Sustainable Development and Water Conservation (FODESNA), which constitutes a financial mechanism to capitalize resources destined for the financing of environmental institutional strengthening projects, conservation and restoration of ecosystem services, and the development of bio-enterprises.

2 Landscape development and sustainable production

Support for sustainable production, through:

- » The incorporation of good practices for cocoa, naranjilla and livestock.
- » The design of development plans for the cocoa and naranjilla value chains.
- » Support for the establishment of conservation agreements with small and medium producers.

Support for the reduction of pressure on the forests of the Sumaco Biosphere Reserve, through the implementation of a Strategy for Sustainable Forest Management (SFM).

3 The promotion of bio-enterprises

Promotion of sustainable community tourism, through the establishment of conservation agreements and good community tourism practices.

Promotion of bio-commerce, through:

- » The strengthening of five products: guayusa, vanilla, orchids, palm fiber and tikaso, all associated with community enterprises.
- » Development of the Chakra Ecological Certification and its application as GIAHS.

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Results

Clear results achieved both in terms of environmental governance and the development objective

Main results

Institutional strengthening and good environmental governance

- » **Improvement of participatory environmental governance, based on the following products:**
 - » Participatory inter-institutional strategy for natural resource management designed and implemented.
 - » Development and Land-Use Plans (PDyOT) with environmental criteria incorporated are implemented in all GADs (provincial, cantonal and parochial).
 - » Drafting of ecological-economic zoning map of the Napo Province.
 - » Information system for planning and managing natural resources generated and administered by MAE and GADPN.
 - » Capacities of actors strengthened in an integrated way, with a focus on the governance of natural resources. Beneficiaries: 165 technicians from the provincial GAD; 25 leaders / decision makers (prefect, mayors and presidents of parish boards); 83 community leaders.
- » **Investments in forest conservation and sustainable production more than doubled:** in the period 2015–2019, a total investment of USD 3.5 million was invested:
 - » Investment in the Socio Bosque Program in Wamani and Akoki: USD 531 600
 - » ATPA investment in Kichwa producer farms: USD 125 600
 - » Productive GAD Incentive (Napo Province GAD): USD 2.8 million
- » **Design and approval of the Provincial Sustainable Development and Water Conservation Fund (FODESNA).** FODESNA constitutes one of the main financial instruments for the sustainability of the processes, experiences and results of the project. Final approval and commissioning are anticipated before October 2020 and it will be a very important achievement of the project.

Landscape development and sustainable production

- » **Improvement of sustainable production, through:**
 - » The application of Good Agricultural Practices (GAP) by 1 370 families on 1 952 ha (1 680 ha of cocoa, 250 ha of silvopastures, 22 ha of naranjillas), mainly by the Kallari, Wiñak and Tsatsayacu organizations.
 - » Obtaining or renewing organic certification for the export of fine flavour cocoa beans to stores in the United States (Whole Foods), Italy (Venchi), Switzerland (Max Felchlin), Canada (Choco Sol), Japan (Nutrition SA) and France (EQUACACAO SAS), and in Ecuador to PAKARI, Ecuatoriana de Chocolates, Salinerito, Cofina and others.
- » **Decreased pressure on forests,** by incorporating 56 833 ha with co-management plans in the protected forests of Cerro Sumaco and Colonzo. This includes 25 communities made up of 4 955 inhabitants with 500 ha of active forest restoration and 2 503 ha of passive restoration.

The promotion of bio-enterprises

» Promotion of community tourism and biocommerce:

- » Management plans and good practice guidelines have been developed, including capacity building, adaptation of infrastructure, obtaining of environmental licenses, the generation of brands and labels, food safety certification, and participation in local, national and regional fairs.
- » These incentives have allowed the establishment of community conservation agreements totalling 7 369.3 ha, involving 750 families working in five tourism enterprises and two co-management plans.
- » Development of five biocommerce products – guayusa, vanilla, orchids, palm fiber and tikaso – achieving:
 - » The development and implementation of management plans for each product.
 - » The production and marketing of guayusa energy drink with three natural flavours.
 - » The production, export and marketing of dry and powdered vanilla.
 - » The sighting of wild orchids and commercialization of patented orchids.
 - » The production and marketing of palm fiber handicrafts.
 - » The production and marketing of tikaso seeds, artisanal cookies and tikaso oil (in development).
 - » The commercialization of products derived from biocommerce in national Napu Marka stores, as well as their export to Canada (ChocoSol), France (Eco Kakao) and Germany (Kallari Future).
- » **Creation of the Chakra Certification.** Based on the approval of the provincial ordinance of the traditional chakra system, all the norms and structure necessary for the establishment of the Participatory Guarantee System (PGS) have been developed for the granting of the Chakra Certification, as well as the approval of the Ministry of Agriculture and Livestock (MAG) of Ecuador for the recognition of the Amazonian Chackra System as a Globally Important Agricultural Heritage System (GIAHS).



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Impact

Less deforestation, more carbon sequestration, higher production and income

These advances in the management of forest landscapes associated with the actions and initiatives of multiple actors, including public policy, national and local programs and projects, and the development of production incentives and economic cycles have facilitated:

- » The reduction of the net deforestation rate in the Napo Province, reaching an average of 2 267 ha/year between 2016 and 2018, down from 2 310 ha/year for the period 2014 to 2016. This means a reduction of 17 percent in relation to the reference level of 2 735 ha/year.
- » The above represents a reduction in greenhouse gas emissions of 817 095 Mg CO₂eq, as well as the emissions avoided by the improvement and maintenance of carbon sequestration, through forest conservation agreements, management of agroforestry and silvopastoral systems, and passive and active forest restoration, totalling approximately 3 998 945 Mg CO₂eq.
- » The strengthening of the different cooperative enterprises helped increase producers' income by between 25 percent and 100 percent in certain cases, thanks to: i) the increase in visitors to tourism enterprises (from less than 200 tourists a year, to over 2 000); and ii) diversification and increased production (from producing only conventional naranjilla to producing 700 boxes of clean naranjilla/year; and from selling 1 500 quintals of organic cocoa per year, to more than 2 000). This has allowed producers to cover their production costs, ensuring better profitability indicators in the medium term.



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Success factors

Good organizations and enterprises

- » **Dialogue between the environment and development.** Long-term solutions have been conceived and implemented that help, simultaneously, to advance in the recovery and conservation of natural resources, and to generate income for the families of the territory. Development and environmental protection go hand-in-hand in a balanced way.
- » **Selection and intensive support for producer organizations.** Producer organizations that have already achieved a certain level of consolidation were selected and given intensive and continuous support.
- » **Good enterprises.** Using a chain approach, interesting enterprises have been identified that show tangible results for improving the income of families and organizations, diversifying products and expanding the partner base.
- » **Real and permanent participation of communities and associations.** The application of the free, prior and informed consent (FPIC) process has allowed the involvement of all participating families in the formulation and monitoring of the project.



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Sustainability

Empowerment of organizations and decentralized governments

The sustainability of the project is ensured by the convergence of: i) the empowerment of associations and communities, resulting from a real process of participation (free, prior and informed consent); and ii) the presence of resources and skills in the territory, thanks to institutional strengthening and resource mobilization.



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Replicability and scalability**Forest and farm facility, climate smart cocoa Program, PROAmazonía and amazon cocoa Consortium**

The experiences gained and the lessons learned in Napo Province project have fuelled the following initiatives:

- » **Forest and farm facility (FFF).** Launched in December 2018, it focuses on supporting Forest and Agricultural Producer Organizations (OPFA), through: i) facilitating the development of more inclusive governance and the formulation of differentiated policies for OPFAs; ii) strengthening bio-enterprises, market access and financing for business development of OPFAs; iii) improving services for mitigation, adaptation and resilience to climate change at the territory level; and iv) providing broader and more equitable access of OPFAs to social and cultural services.
- » **Climate smart cocoa Program.** Launched in September 2019, the program was conceived within the framework of the International Alliance for Climate Smart Agriculture, established between FAO and the Italian Ministry of Environment, Land and Sea (IMELS). Its partners in Ecuador are the MAE, the MAG and the Napo Producer Associations (Wiñak, Kallari and Tsatsayaku). The purpose of this project is to contribute to the strengthening of capacities and the revaluation of the chakra system as a technology of adaptation, resilience and mitigation of climate change, based on the strengthening of the cocoa value chain (certification, market opportunities, genetic improvement and business management, among others).
- » **The Amazon Integral Program for Forest Conservation and Sustainable Production (PROAmazonía),** is an initiative of the MAE, MAG and the United Nations Development Program (UNDP), financed by the Green Climate Fund (GCF) and the GEF. This program, launched in 2017 for a period of six years, is being implemented in six Amazonian provinces, in addition to the southern dry forests (Loja and El Oro). With a focus on



gender and interculturality, PROAmazonía seeks to generate opportunities and promote the full and effective participation of women, youth and indigenous peoples and communities in decision-making processes aimed at sustainability. The experience and good practices of the Napo Province project have been a valuable contribution that PROAmazonía is replicating in other territories.

- » **Amazon cocoa Consortium.** Based on the successful business model developed in the cocoa chain, the main associations of producers of this crop are in the process of achieving legal recognition as a cocoa consortium, an organizational network that will strengthen the positioning of the product in national and international markets, and have a regional (Amazon) representation in the decision-making of cocoa unions at the national level.

Four main ideas

- » **Take a permanent participatory approach.** The right to free, prior and informed consent (FPIC) is guaranteed through the application of a process based, with some adaptations, on the methods proposed by Ecuador's Ministry of Environment and FAO. This process, in which women played a fundamental role, was structured in three steps: i) contributions of the communities in the design of the project; ii) community selection, acceptance and commitment to the project; and iii) participation of the communities in the execution of the project.
- » **Provide intensive and relevant support.** The continuous and intensive support provided by technical teams that remain in the communities generates bonds of trust that facilitate adaptation and adoption of management practices. When the technicians are from the area, sharing the culture and language of the participants, this gives even more local credibility to the recommendations made.
- » **Strengthen local organizations.** The empowerment of civil society contributes to ensuring the continuity of processes and actions beyond the changes of governments. Thus, the producer organizations firmly defended the ongoing process, making the new authorities assume the commitments made by the previous ones.
- » **Collaboration with local universities.** This constitutes an important added value, as it gives a professional dimension to the certification of training and studies on forest management and biocommerce. As this is an area of mutual strategic interest, the partnerships were developed without additional costs for the parties, thereby helping to optimize the use of resources.

The free, prior and informed consent (FPIC) process in Napo Province

The FPIC process for the approval of the GEF-Napo project was based on 41 meetings, involving more than 8 800 people:

» Kichwa Ancestral Oyacachi people, 704 people:	5 meetings
» Kichwa Santa Rita community, 801 people:	4 meetings
» Kichwa Runashito community, 250 people:	3 meetings
» Kichwa Pacto Sumaco community, 300 people:	4 meetings
» Kichwa Yanayaku community, 280 people:	4 meetings
» Kichwa de Rukullakta people, 6 350 people:	21 meetings

FPIC is a specific right of indigenous peoples recognized in the United Nations Declaration on the Rights of Indigenous Peoples. It allows them to grant or deny consent to a project that may affect them or their territories. Once consent has been given, they can withdraw it at any time. It also allows them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated (FAO, 2016. Free, prior and informed consent: A right of Indigenous Peoples and a good practice for local communities. Guidelines for professionals in the field).



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Highlights

When environmental conservation constitutes an opportunity for development

- » **The strengthening of processes resulting from two focus areas:** intensive support to strengthen organizations and the promotion of enterprises from a value chain perspective.
- » **The achievement of an inter-institutional work culture,** where all the actors participate and contribute in their respective areas.
- » **The strengthening of a local policy** that manages to bring together the different entities and communities of the territory in a common strategy to promote community well-being.

An inter-institutional work culture: Project partners and allies

1	GEF	Resource partner
2	FAO	Participation in decision making - Executor
3	GAD Provincial Napo	Participation in decision making
4	MAE	Participation in decision making
5	GIZ	Participation in decision making
6	GAD Tena	Partner – promotion of good practices
7	GAD Quijos	Partner – promotion of good practices
8	GAD Archidona	Partner – promotion of good practices
9	GAD Arosemena	Partner – promotion of good practices
10	GAD El Chaco	Partner – promotion of good practices
11	GAD Cuyuja	Partner – promotion of good practices
12	GAD Cosanga	Partner – promotion of good practices
13	GAD Hatun Sumaco	Partner – promotion of good practices
14	USAID	Partner – promotion of good practices
15	Rainforest Alliance	Partner – promotion of good practices
16	Universidad Estatal Amazónica (UEA)	Training – research
17	Military Geographic Institute (IGM)	Information
18	Ecuadorian Space Institute (IEE)	Information
19	Consortium of Provincial Autonomous Governments of Ecuador (CONGOPE)	Information – planning
20	Association of Municipalities of Ecuador	Information – training
21	Maquita Cuchunchi	Information – training
22	Universidad Regional IKIAM	Training – research
23	Ecuadorian Development Cooperation Fund (FECD)	Information – training
24	PROFAFOR	Constitution of FODESNA
25	National Financial Corporation (CFN)	Constitution and management of FODESNA



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Gender

- 40 percent of the participants are women
- Value chain analysis with a gender perspective (for example, the ability of women to pollinate the vanilla flower)
- Systematization of experiences to share in gender learning in the project

Social inclusion

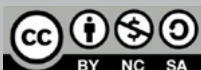
- Intercultural focus
- Ethnic focus
- Inter-generational focus
- Trust building

Social participation

- FPIC Process
- Participation in management plans
- Participation in business models

More information:

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