



## Case study in the Fúquene Lake basin Colombia

Within the project "IMPROVEMENT OF POLICIES SUPPORTING SUSTAINABLE MOUNTAIN DEVELOPMENT", a case study was carried out in the Fúquene Lake basin in Colombia. This study was made in the framework of cooperation and financing for FAO's Project "Sustainable Agriculture and Rural Development in Mountain Regions" (SARD-M), CGIAR's Global Mountain Program (GMP) and the Andean Basins Regional Project.

The Andean Basins Regional Project is a collaboration between CONDESAN, REDCAPA and the German cooperation agency GTZ. The study was carried out with the Fundación para el Desarrollo Sostenible Territorial (Foundation for Territorial Sustainable Development) – FUNDESOT, and the two cooperating agencies were jointly responsible for follow-up and work evaluation.

The purpose of the study was: "To identify and analyze the strengths and weaknesses of the various actors in the policies for use and conservation of renewable natural resources in Andean mountains, particularly water, soil and forests, through a case study in the Fúquene Lake basin, located in the Department of Cundinamarca, Colombia"

The study sought to answer the following questions:

- What are the objectives of national, regional and local agrarian and rural development policies, specifically with respect to the use of natural resources?
- How do policies approach the specifics of mountain issues: fragility, inaccessibility, marginality and diversity?
- What has been the impact of policies on the survival of communities and the environment?
- What elements of these policies have facilitated positive developments and which have hindered development or generated negative impacts?

Secondary information was obtained, among other sources, from publications by the Ministry of Agriculture and Rural Development, the Ministry of the Environment, Corporación Colombia Internacional, CEGA, the Society of Colombian Farmers, the Corporaciones Autónomas Regionales (Autonomous Regional Corporations) and academic entities. The laws most related to rural development and management of renewable natural resources were selected, giving them particular emphasis because of their relevance to mountain issues. Selected laws were analyzed according to their incentives and sanctions (monetary and non-monetary), particularly if they take into account the specifics of mountain issues.

Surveys, expert interviews and workshops were developed taking into account the abovementioned variables and the basic variables of agrarian policy, emphasizing those related to sustainable use of natural resources. Three hundred surveys were carried out among inhabitants of different gender and from various social classes, high, middle and low, in order to be able to measure their applicability. Thirty-six experts interviewed in Lima and Piura helped to clarify the mechanisms involved in developing and enforcing policy measures, the existing problems and the context for regulations to be applied or not.

The survey information was validated and complemented by a discussion workshop, where participatory rural diagnosis tools were used. Results were discussed and complemented by a workshop in Piura with technicians and leaders from the two sub-basins. All of the information gathered was analyzed using descriptive statistics tools and the results were compared to the theoretical framework and the few existing studies.



Some of the results, in terms of the objectives, were:

**What are the objectives of national, regional and local agrarian and rural development policies, specifically with respect to the use of natural resources?**

The administration of President Alvaro Uribe Velez established, as one of its main projects, the development of a prospective planning effort, called “Visión Colombia II Centenario: 2019<sup>1</sup> (Vision Colombia II Centennial: 2019), to serve as a starting point to think about what country all Colombians want to have by the time the country commemorates its second centennial of independent political life, which will take place on August 7, 2019.

The whole vision of the second centennial is built on two basic principles:

1. To consolidate a deeply democratic political model, founded on the principles of freedom, tolerance and fraternity, and
2. To establish a non-excluding socio-economic model, based on equal opportunities and a State that guarantees social equity.

These two principles, in turn, are broken down into four large objectives: 1. An economy that guarantees a higher level of well-being; 2. A more equal and more supportive society, 3. A society of free and responsible citizens; and 4. An efficient State at the service of its citizens.

For agriculture, Vision 2019 states that: “By 2019, Colombian agriculture will have competitively increased its production and its capacity to access international markets, based on a more efficient leveraging of the comparative advantages provided by the tropics and the development of processes that generate added value, mainly, technological innovation. Agriculture will offer better opportunities and an improved standard of living for the rural population and the population of the country.” This vision, which stresses competitiveness, seeks to leverage Colombia’s advantages in terms of availability of natural resources, geographical position and institutional structure to improve the standard of living of the rural population.

As to management of natural resources, Vision 2019 also establishes a vision: “By 2019, Colombia will have reached sustained economic and social development, based on sustainable use of the environment, natural resources, biodiversity and the services these provide, and society will have been incorporated in decisions made with respect to the environment, its costs and its benefits.”

In Colombia, there is a broad conceptual framework for agrarian and natural resource policies that constitutes a foundation for implementing such policies and designing short-term instruments. This also demonstrates the interest in discussing the future of this sector and the value given to developing regulations to help in solving existing problems.

**Short-Term Agrarian Policy**

The National 2003-2006 Development Plan, “Towards a Community State” (Law 812 of 2003), provides the framework for the various macro policies and policies applicable to the sector.

The agrarian policy, according to the Ministry of Agriculture and Rural Development, focuses on forging a positive environment for agrarian activities, consistent with the need for competitiveness in both international and domestic markets; on aligning government actions with private initiatives so as to develop innovative management approaches, applying criteria focused on optimizing resources and efforts; and on extending the benefits of development to the whole of rural society.

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<sup>1</sup> DNP. 2005. "Visión Colombia Segundo Centenario: 2019". DNP. Bogotá.



Strictly in connection with the agrarian sector, policy has been designed based on four key areas:

- Investment and Development
- Research and Technological Development
- Distribution
- Rural Development

As an institutional framework to articulate these different areas, production chain consolidation has been promoted. The goal is to focus the actions taken in each of these areas in order to guarantee a greater impact from government investments and the increased efficiency of public and private initiatives.

The following have been implemented as policy instruments:

- Financial instruments: Fondo Agropecuario de Garantías – FAG (Agrarian Loan Security Fund), Incentivo a la Capitalización Rural – ICR (Rural Capitalization Incentive), Crédito Asociativo y Certificado Incentivo Forestal – CIF (Credit for Associations and Forestry Incentive Certificate); Seguro Agrícola (Agricultural Insurance); Titularización de Reposición de Activos de Operaciones – REPO (Securitization of Restored Operational Assets); Programa Nacional de Reactivación Agropecuaria – PRAN (National Agrarian Reactivation Program) and Programa Nacional de Reactivación Cafetera – PRAN Cafetero (National Coffee Industry Reactivation Program).
- Technological improvement instruments: Research agenda; competitiveness and agrarian health improvement agreements; Sistema Nacional de Ciencia y Tecnología Agroindustrial (National Agribusiness Science and Technology System); parafiscal funds; Programa Nacional de Transferencia de Tecnología Agropecuaria (National Agrarian Technology Transfer Program) – PRONATTA; and Instituto Colombiano de Desarrollo Rural (Colombian Institute of Rural Development) – INCODER.
- Some of the most important instruments for improving distribution are: Contract farming in agriculture, a marketing fund, price stabilization funds and a Competitiveness Observatory.
- International trade instruments: International negotiations within: CAN-PACA (Andean Community of Nations-Andean Common Agricultural Policy), WTO, FTAA, bilateral agreements and protection and stabilization measures (customs tariffs, price bands, approvals, safeguards, corrective rights).
- Rural development instruments: Land upgrading; rural housing and agrarian reform; modernization plan for farmer economies; production alliances; comprehensive support to farming producers; Apoyo al Desarrollo de la Microempresa Rural (Support for the Development of Rural Micro Businesses) – PADEMER; and Program for Rural Women.

### ***Short-Term Environmental Policy***

Since 1974, a national environmental policy has been issued in Colombia every four years:

- The environmental policy contained in the 1990-1994 National Development Plan ordered the creation of the Ministry of the Environment and the acquisition of credits with multilateral banks to strengthen environmental management, among other measures.
- The 1994-1998 National Development Plan established the environmental policy called “Towards Sustainable Human Development”. This policy has five basic objectives: promote a new development culture, improve quality of life, promote clean production, develop sustainable environmental management, and guide the population’s behavior.



- The 1998-2002 National Development Plan incorporates “The Collective Environmental Project to Build Peace” and defines that water is a priority and core area of environmental policy. There is continuity with the environmental policy of the previous two periods, as well as consistencies with the national policies of the 70s and 80s, as typified in the case of forests.
- The 2002-2006 Development Plan, “Towards a Community State”, is where the least importance is given to the environment, as was evident from the start when the Ministry of the Environment was merged with the Ministry of Development, whereby environmental management lost the status it had in the National Development Plans.

### **Decentralized Structures**

Another important factor is the existence of Secretarías de Agricultura/de Desarrollo (Agricultural or Development Bureaus) in each department (territorial district). In these entities, composed of small groups of professionals and technicians, plans and programs are developed according to the needs of each region and agreements are made to implement national policies.

At the local level, rural development responsibilities mainly involve providing technical assistance services, planning and implementing land-use plans and coordinating with the Sectoral Planning System of the Ministry of Agriculture. In the planning processes, a major role is played by the Consejos Municipales de Desarrollo Rural (Municipal Rural Development Councils), which are composed of trade organizations and municipal authorities, and whose purpose is to determine the rural development plan for the municipality and participate in the general Development Plan.

Technical assistance is offered through the Unidades Municipales de Asistencia Técnica Agropecuaria (Agrarian Technical Assistance Municipal Units) – UMATAS – and, more recently, through the Centros Provinciales de Gestión Agroempresarial (Provincial Centers for Agribusiness Management). The excessive decentralization has resulted in a loss of a national development perspective, given the lack of effective articulation and orientation mechanisms. By law, municipalities have to develop Land-Use Plans. Most of these are implemented independently of UMATAS and implementation has been limited. Therefore, they have had little impact on a more sustainable use of natural resources.

### **How do policies approach the specifics of mountain issues: fragility, inaccessibility, marginality and diversity?**

Mountain issues do not constitute a specific subject in the national agrarian policy, that is, they are not referred to specifically as mountain policies. However, many of the measures and functions defined in the current institutional framework are related to the general subjects of sustainable use and conservation of natural resources in steep terrain.

However, the subject of mountains does run the risk of been seen more from the biophysical viewpoint (climate changes, soil degradation and water management) than comprehensively. The segmented vision of resource use and the small number of experiences in regional rural development create a situation where, in practice, the subject of “mountains” is still in its beginnings, though it has been valued and recognized for a very long time.

\* In Colombia, there is a broad and decentralized institutional framework in relation to the subject of mountains: the Ministry of Agriculture and Rural Development, the Ministry of the Environment, Housing and Regional Development, the Colombian Institute of Rural Development (INCODER), the Autonomous Regional Corporations, the Colombian Agrarian Institute, the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM), the Alexander von Humboldt Institute, the Agustín Codazzi Geographical Institute, the Departmental Agricultural Bureaus and the Provincial Centers for Agrarian Management. In addition, several universities have research centers supported by COLCIENCIAS and specific programs such as “Steepland Agriculture”, promoted by CIAT, which focus on sustainable use of mountainous regions.



## **What has been the impact of policies on the survival of communities and the environment?**

To answer this question, we analyzed the evolution of poverty and the degradation of natural resources as aggregate indicators of the impact of the policy designed for the rural sector. We understand that aggregation might not be the best choice, but there are major differences between regions, where the coastal plains, the highest Andean areas and the indigenous communities in various parts of the country are the most backward.

### ***Poverty***

According to Fajardo (2004), Colombian rural areas have, throughout the decades, experienced deep inequality in terms of access to land and, with that, the perpetuation of archaic power structures, revenue appropriation and violence, which have limited the development of the economy and political relations. In Colombia, according to World Bank data (2001), poverty continues to be a critical and major regional problem. The poverty rate in rural areas was 80% in 1999, compared to 55% in urban areas. By the end of 2005, the estimate was that rural poverty had declined by 8 points, but continues to be too high<sup>2</sup>.

The persistence of poverty can be taken as an indicator of the little impact that policy implementation and institutions have had on the survival of individuals and communities in rural areas of the country.

\* Indicators would show that, in the aggregate, many difficulties exist. Though aggregation does mask successes in some regions and certain projects, it is consistent with the general perception held by professionals, as seen in the interviews and workshops. The situation of the rural poor has not improved due to the nature of their agricultural activity. Income improvements sometimes occur due to the informal activities unrelated to agriculture, represented by temporary migration or employment in urban tasks.

### ***Food Security***

Colombia faces serious challenges in its pursuit of food security for its population. Though the main indicators do show some progress, 13% of Colombians are still undernourished, 13.5% of children under 5 are chronically malnourished and the death rate due to malnutrition is 5 out of every 100,000 inhabitants.

High public debt (15% of the GNP) contributes to the high poverty rates. In 2005, close to 48% of the general budget of the country was allocated to paying financial debt costs and defense and national security expenses<sup>3</sup>.

The national government has designed several actions to improve food security within the National Development Plan, including strengthening the Colombian Institute of Family Welfare of the Ministry of Social Protection, the National Food and Nutrition Plan, specific programs such as “Familias en acción” (Families in Action), “Protección del adulto mayor” (Senior Citizen Protection), breakfasts for children and others dedicated to improving production performance and food distribution.

In this area, once again, the regulatory framework and strategic plans are better than their implementation and the concrete effects obtained. The country progresses, but the problems of food security in certain regions still persist.

In the case study area, food security is not a problem, since it has good production levels and good infrastructure, allowing the population to be well-connected to the national economy and, above all, to Bogotá, the largest market in Colombia.

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<sup>2</sup> Ministry of Agriculture and Rural Development 2005. Op. cit.

<sup>3</sup> Salcedo B. S. (Editor) 2005. Políticas de seguridad alimentaria en los países de la Comunidad Andina. FAO. Santiago de Chile. p. 61.





\* As to the policy on natural resources, whose use is linked to actions carried out in the country's mountains and valleys, its effects are seen in the loss in soil, water, forest and biodiversity. According to the UNDP, 17% of the Colombian territory shows signs of desertification, while another 15 percent is vulnerable to desertification in the near future. According to the report, Colombia shows soil degradation processes, including erosion, compacting, nutrient leaching, contamination, salinization and sodification. This soil degradation is caused by activities such as deforestation, mining, intensive and extensive livestock farming, non-sustainable agricultural systems, inappropriate use of water sources, indiscriminate burning and illegal crops.

### **Water Losses**

Until 1990, Colombia had the fourth largest volume of water per surface unit in the world, after the Soviet Union, Canada and Brazil. Seven years later, things had changed completely, according to the last study by the National Planning Department, carried out in 1996, which indicates that Colombia has dropped to the 17<sup>th</sup> place in water volume per surface unit.

In Colombia, one river disappears every six months due to indiscriminate felling of forests. This directly impacts water and soil ecosystems, on which life on earth almost totally depends. The institutional and administrative system, that is, water governance, also plays an important role in the problems faced. Catchment and distribution systems have many design and maintenance defects, leading to high losses and putting at risk the supply for the population during drought years, not because of a natural lack of water, but because of deficiencies in the aqueducts<sup>4</sup>.

### **Loss of Forests and Biodiversity**

The various entities and researchers do not agree on the degree of forest and biodiversity losses. An estimated 300,000 hectares of forest are lost annually due to the expansion of the agricultural border and colonization (73.3%), lumber production (11.7%), wood used for burning (11.0%), forest fires (2%), and illegal crops (2%).

The degradation of biological infrastructure currently experienced in the mountains and plains of the country as a result of accelerated deforestation, desertification and destruction of ecosystems that are essential for biological balance has brought about both legal and regulatory responses, such as the establishment of national parks, family planning, and suitable ecosystem and species management, which have favored the conservation of natural resources.

Based on the aggregate impacts, the existing designed and implemented policies and institutions have brought about some progress, but there are still serious problems in terms of advancing towards a sustainable development. The possibilities for improvement are vast, both at the structure level and the process level.

### **What elements of these policies have facilitated positive developments and which have hindered development or generated negative impacts?**

#### **Positive:**

- The great interest by the central government, trade organizations and academics in generating studies on agrarian issues, forestry and management of non-renewable natural resources; developing participatory visions; and maintaining a continuous dialogue between the various sectors.

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<sup>4</sup> Guhl N. Ernesto. 2005. Peligros y soluciones a la escasez y contaminación creciente del agua. Taken from the Internet.



- The design and reform of public institutions and organizations, especially at a national level, to respond to the demands by trade associations and organized groups and to update actions according to the changes in the development paradigm occurring in the country.
- The “competitiveness agreements” reached and the consolidation of agrarian production and food chains. Joint actions have shown significant progress and have contributed to improved penetration of the country in the global market.
- The promotion of “production alliance” projects between producers, distributors and government agencies, especially the departmental Agriculture Bureaus.
- Decentralization processes have created a major forum for discussions on adapting the necessary measures to each region and have begun to create a significant movement in favor of regional rural development and the role of local and regional governments in rural development.
- Various public and private institutions have developed countless methods for working with small producers and indigenous communities.
- Maintenance of the Autonomous Regional Corporations as entities entrusted with implementing environmental and renewable natural resource policies.
- The studies carried out to design the plans show the existing potential of land suitable for cultivation, agrarian production and reforestation, the availability of labor, proximity to large markets, availability of technology and species and the incentive framework that has been created.
- The importance that the 1991 Constitution gives to citizen participation and decentralization processes.
- Community participation in management of rural ecosystems, protected areas and ethnic community territories is a constitutional principle, also developed in the legal regulations and master documents for the country’s economic, social and environmental development.
- The agrarian production and agribusiness sectors and urban areas have begun to recognize their dependence on appropriate environmental management of ecosystems that produce environmental services, especially water.
- Existence of legal regulations establishing that municipalities have the obligation to establish reserve areas at the headwaters of their water sources.

### **Negative**

- The concepts generated for institutional reform and modernization of the sector have focused actions on agricultural and livestock farming, without a comprehensive vision of rural issues.
- There is a breach between the political language and the theoretical framework serving as the basis for the reform design and its implementation and follow-up. The lack of financial resources to fulfill functions such as promotion (creation of incentives to change the behavior of the parties involved), enforcement (compliance with sanctions and preventive monitoring), and follow-up and evaluation (possibilities of making adjustments and adaptations), the politicization of the institutions and the lack of coordination between institutions, all generate low performance in public institutions and low impact in terms of the expected changes.
- Though there has been progress in the decentralization of some policies and functions, the articulation between national, departmental and municipal levels is still weak. The national and generic approach still prevails over regional and local needs.
- Landholding in the country is still characterized by a high concentration of property.



- Unemployment is particularly high in Colombia.
- Participatory processes take place based on incomplete, insufficient or incomprehensible information, leading to “a dialogue of the deaf” between the government, the production and infrastructure sector, and the communities.
- The positions of the government with respect to the environment and environmental management are not consistent. There is no single set of criteria applied by government institutions –not even within the Ministry of the Environment itself–, preventing consistent environmental management and making dialogue with the communities difficult (who, generally, also do not have unified positions).
- The continuation of the armed conflict and drug trafficking create instability and insecurity in rural areas. This creates uncertainty and deters investment and, more seriously, undermines the general confidence of the country.
- Growth in rural areas fluctuates due to the high variations in international prices for tradable products and the fast increase in production costs.
- The existing gap between regions with respect to growth and market presence.
- Economic instruments –taxes, contributions, funding, fiscal incentives– are often inapplicable since property rights on resources and environmental services are inexistent or undefined.
- Macroeconomic policy conditions for agricultural and livestock production, particularly interest and exchange rates, and, as a whole, the government’s overprotection of the financial sector, have converged with the concentration of land ownership and the ensuing monopoly over land revenues, to create a non-competitive agriculture, with limitations in its use of efficient agribusiness processing and distribution.
- The water and forest law is divorced from its enforcement and from the users, mainly those in the upper region of the basin. In the upper region, farmers are more isolated, to the point that they have no knowledge of the laws nor do they have any confidence in their enforcement.
- Granting rights on water use without considering changes in water supply due to climate changes and variations in water balances, generates widespread conflicts both locally and regionally.
- Meager resources allocated to public administration to fulfill its promotion and monitoring functions.
- Weak organizations, especially those representing small producers and peasant and native communities, prevent them from participating in policy decisions and, if they do, they have little negotiation power.
- The low profitability of the rural sector is one of the negative aspects affecting its growth and development. The actual price index of the sector shows a highly fluctuating trend, which generates uncertainty.

### **Recommendations**

Based on the objectives for sustainable development of rural areas, the FODA analysis carried out and the statements of survey respondents and interviewees, the recommendations for improving the design, implementation and monitoring of policies that take the poor into account, especially those who live in the high basin regions, can be summarized as follows:

1. The gap between theory and practice, that is, between the laws and strategies designed and their implementation, must be solved. This involves raising the awareness and knowledge of producer organizations in the basins about existing rights and obligations and about the legal incentives





and penalties affecting rural populations. Creating ways to promote and support improvements in the organization and negotiation power of rural farmers and their levels of information about citizen rights, existing regulations and domestic and foreign market opportunities is also absolutely necessary. This can be accomplished through training and monitoring, while respecting traditional organizational forms.

2. Support political dialogue and civic education in communities to improve the participation of producers in policy-making. Teachers must be involved and must play an important role in civic education. Mayors and Agricultural Bureau Directors must ensure that the communities know and use the participatory mechanisms that have been created.
3. Improve the public administration's management by training professionals and experts on the standards and strategies that the Ministries of Agriculture and Rural Development and of the Environment, the Agricultural Bureaus and local organizations have created to improve performance, both technically and in the social and political spheres. Another area for improvement is the articulation and coordination between national, departmental and local actions. At present, national-level and sector-level approaches prevail. The distribution of powers and authorities must be improved under the principle of subsidiarity, while trying to find ways to promote sustainable development at a regional level. In this area, it is also important to seek consistency and simplification of regulations so that they can be more transparent and easier to understand and apply.
4. Design mechanisms to promote a balance between "top to bottom" and "bottom to top" measures. This work must involve politicians, officials and communities in order to motivate people and organizations to take advantage of existing participatory spaces. This recommendation requires the government to support the modernization of public and trade organizations in order to improve their performance in terms of the services they render and their negotiating power. Organizations are the foundation of social capital and they can perform a series of functions to strengthen institutional and rural development. That is why government should provide them with incentives, particularly those with the potential to assume promotional and leadership roles in institutional development.
5. Broaden discussions between actors in order to be able to synthesize existing visions into a more comprehensive concept, within a new institutional framework based, above all, on regional development. Building a new institutional framework goes beyond the focus prevailing until now. The process must be secured by incorporating aspects beyond those related exclusively to agrarian and rural issues, such as citizen participation in decision-making, the effectiveness of the government, legal security, access to land, and appropriate management of natural resources, as well as the environment and providing the necessary support services (such as financing and rural investment). Institutions must work in concert for them to be useful and to allow solutions to local needs to be built within a framework of general development. A comprehensive, orchestrated vision will help to find synergies and links between various areas and broaden the opportunities of each actor to participate in its own transformation.
6. Set in motion mechanisms that will strengthen the actions of local governments in the sustainable management of natural resources and implement rural development policies in their regions. This requires more incentives for investing in the local rural area and more empowerment to the local government to exercise authority and promote development. In Colombia, public rural policy has great operational voids at regional levels, as is evident in how polarized and dissimilar the two levels are. At one end, at the central level, macroeconomic variables are handled and great decisions are determined and made, while at the other end, at the local level, small atomized projects are carried out, without any impact or result. Quite the contrary, they are projects lacking any economic and social sustainability with a very short life-cycle horizon. But the worst part is that they do not respond to any planning criteria or regional agreement, since they are part of departmental or municipal development plans. Therefore, an organizational adjustment is

necessary, which involves strengthening institutions at a regional level to give regional entities both responsibilities and executing and control capabilities. For this, the mechanisms to be used must ensure the consensus and participation of beneficiary communities in order to legitimize the public policies to be developed and the management carried out by all levels of government.

7. Take advantage of the meetings for dialogue and consensus (mesas de concertación) and participatory budgets to provide public resources and obtain alliances with the private sector in order to improve agricultural innovation processes, training, information, technical assistance and distribution. Positive efforts made with agrarian food chains, competitiveness agreements and production alliances must continue and multiply, because they are a very important foundation for improving productivity and achieving better penetration of domestic and foreign markets. These mechanisms must be used, so that, based on those experiences, the issues of renewable natural resource management and equity can be incorporated more clearly.
8. The efforts to improve competitiveness must be deepened, but not only based on instruments for improving processes and capacities, but facing structural problems. This will require actions and incentives that promote access to assets, improve business capacity and provide more information to make long-term decisions.
9. Processes that promote and support peace efforts are essential to improve the performance and sustainability of the rural sector and regional development. Therefore, all efforts to solve the conflict and find ways for all actors to coexist nationwide must be supported. Actions must range from the structural and emergency reforms necessary in the most affected regions, to awareness-raising measures to create a culture of peace.
10. The free-trade agreement with the United States and other announced agreements translate into opportunities for some actors and into threats for others. Achieving positive effects will involve detailed monitoring and timely determination of compensatory measures and actions supporting conversion of any actors affected by the process in the short term.
11. Natural resource conservation efforts must be linked as best as possible with productivity improvement processes. Efforts and experiences in biocommerce, green markets, ecotourism and generation of ecosystem services must be better leveraged, supported and communicated to improve financing for conservation and provide new opportunities to the poor in the Andean region.
12. Regional integration processes and international negotiations must continue to be supported. Likewise, the instruments for small producers to participate in international markets must be expanded.
13. In all of the studies, the revaluation of the peso appears as one of biggest barriers to achieve competitiveness in the rural sector. This macro policy factor must be discussed further to find a solution, because it is unreasonable for businessmen's efforts to be frustrated due to this factor. Trade organizations, politicians and monetary policy makers must be called to establish a broader dialogue in order to find a solution, not only to meet the need for stability, but also the need for competitiveness.