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EXECUTIVE SUMMARY

Ex-post Evaluation

PD 54/99 Rev.2 (F)

ALTERNATIVE FINANCING MODEL FOR SUSTAINABLE FOREST MANAGEMENT IN SAN NICOLAS, COLOMBIA

PD 240/03 Rev.1 (F)

ALTERNATIVE FINANCING MODEL FOR SUSTAINABLE FOREST MANAGEMENT IN SAN NICOLAS - SECOND PHASE: NON-KYOTO REHABILITATION AREAS

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1. INTRODUCTION

The ITTO Secretariat engaged consultant Jorge Malleux to carry out an ex-post evaluation of Projects PD 054/99 Rev. 2 (F) "Alternative financing model for sustainable forest management in San Nicolas, Colombia" and PD 240/03 Rev. 1 (F) "Alternative financing model for sustainable forest management in San Nicolas – Second phase: Non-Kyoto rehabilitation areas", implemented between 1999 and 2009.

This ex-post evaluation was carried out under the thematic evaluation group on "Environmental services (CDM, REDD, Carbon Credits, Kyoto, etc.)" so as to provide a precise diagnosis of both of these environmental services related projects in order to establish their successful and unsuccessful aspects as well as the reasons for these, and the contribution of these projects towards the achievement of ITTO's Objective 2000.

Both of these projects were implemented in the Municipality of Rio Negro, located in the Antioquia Region of the Republic of Colombia by the Regional Autonomous Corporation of Rio Negro – Nare (Corporación Autónoma Regional Rio Negro - Nare – CORNARE), under the supervision of the Forest Directorate (Dirección de Bosques - DBBSE) of the Ministry of the Environment and Sustainable Development (Ministerio del Ambiente y Desarrollo Sostenible - MADS).

The decision to carry out this evaluation was based on the international significance of both projects. Project PD 054/99 was, to a certain extent, considered to be a pioneer initiative with regard to the development of an alternative sustainable forest management financing mechanism within the scope of the Kyoto Protocol, which had just very recently been approved in 1997, and the aim was to assess its viability within the specific geographic context of the tropical and sub-tropical forests of the Antioquia Region in Colombia. Project PD 240/03 was the second phase of the previous project and focused on alternative SFM financing systems for areas that are not eligible for assistance under the Kyoto Protocol, in other words, areas of forestlands or forests that are suitable for landscape restoration or rehabilitation, thus marking an important milestone based on the same principles as the current REDD programme.

In accordance with the terms of reference drafted by the ITTO Secretariat for the consultancy, the consultant has prepared a separate report for each project, and this document is an executive summary of the results of the evaluation of both projects.

2. EVALUATION SCOPE, FOCUS AND APPROACH

In accordance with the ITTO Manual for Project Monitoring, Review, Reporting and Evaluation (GI Series 14, third edition 2009), an ex-post evaluation is the systematic and objective collection of information, on the spot assessment and analysis of the validity, design, appropriateness, performance and the impact of the Project after its completion, with the intent to establish the extent to which it achieved its objective, its degree of effectiveness and efficiency, as well as its sustainability.

Hence, the purpose of ex-post evaluations is to learn lessons and to draw conclusions for future Projects and establish the extent to which the results, in terms of Outputs, achieved Objectives, impact and sustainability of the Project intervention, have been attained and draw conclusions and recommendations for similar interventions in the future.

The main aspects that have been considered in this synthesis document include:

1. Overall function and significant contributions of the two projects towards the conservation, sustainable management and/or rehabilitation of tropical forests and payments received for the environmental services they provide in Colombia, taking into account the ITTO objectives, the Yokohama Action Plan and Objective 2000.

2. Overall contribution of the projects in building capacity to identify, formulate and implement CDM-AR projects aimed at the restoration, management and rehabilitation of secondary and degraded tropical forests in Colombia.

3. Overall relevance and impact of the two projects on the executing agencies, the forest sector, the local forest-dependent communities and relevant neighboring countries.

4. General achievement of objectives and assessment of overall project efficiency.

5. General adequacy of project cost structure and use of project resources.

The details of the two projects evaluated, as well as the specific outputs and recommendations arising from the evaluation, are contained in the evaluation reports that have been separately prepared for each individual project and have been summarized or synthesized in this document in the form of an executive summary. It is important to point out that, in accordance with the terms of reference and the ITTO Manual for Project Monitoring, Review, Reporting and Evaluation, the consultant arranged meetings and conducted discussions with the executing agencies and their main representatives responsible for project implementation, who were at a later stage given a copy of the draft reports of both projects to seek their feedback on the results of this work.

The consultant wishes to acknowledge the contribution of all the people who provided their invaluable support and cooperation during the visits that took place in the Rio Negro Province. In particular, he wishes to acknowledge Javier Parra, Executive Director of CORNARE; Patricia Tobón, former coordinator of the projects evaluated; Pedro Nel Vallejo and Ana Isabel López, professional officers of CORNARE; Jaime García, Director of MASBOSQUES; and Zoraida Restrepo, professional community outreach officer, who also participated in the implementation of both projects. The consultant had a long and extremely useful meeting with officers from the Forest Division of the Ministry of the Environment in the City of Bogota and wishes to thank the following officers in particular: Luz Stella Pulido, Pablo Manuel Hurtado and Rubén Darío Guerrero.

The work plan developed by the consultant can also be found in the individual reports of each of the two projects.

3. OVERALL INFORMATION ON THE PROJECTS EVALUATED

3.1 Project PD 54/99 Rev. 2 (F) "Alternative Financing Model for Sustainable Forest Management in San Nicolas"

This project was developed as a model pilot project in accordance with the methodology for the long-term financing of sustainable forest management developed by EMPA and WWF in 1998.

Origin and objectives

Origin: This project proposal arises from the recognition of a number of factors restricting the long-term funding of sustainable forest management and thus hindering constructive regional development processes. Policy and market deficiencies, such as the inadequate valuation of forest products and services, result in unsustainable practices and deforestation.

Development objective: "Test a new financing system which combines sustainable tropical forest management with the possibilities offered to the forest sector by the Clean Development Mechanism and with the participation of international investors".

Specific objectives:

- Develop an Investment and Financing Plan for Sustainable Forest Management for the Corporation in San Nicolas.
- In coordination with the community, formulate a sustainable management plan for the forest areas of the region, including eligible and non-eligible activities within the Clean Development Mechanism (CDM) of the Kyoto Protocol (KP).
- Ensure the basic social and institutional conditions required for project implementation.

Expected duration and general costs: The project was initially planned to be implemented over two years. However, given the characteristics of the project, particularly the fact that it was a new topic and a pioneer project in the development of this thematic area, the recruitment of personnel was quite challenging as it was difficult to find candidates that met the required profiles.

Budget:	
ITTO:	US $649.179
CORNARE:	US $350.443
EMPA:	US $244.463
TOTAL:	US $1.244.085

3.2 Project PD 240/03 Rev. 1 (F) "Alternative Financing Model for Sustainable Forest Management in San Nicolas – Phase II: Non-Kyoto Rehabilitation Areas"

Origin: The project arose from the urgent need to establish sustainable forest management practices that had been envisaged in the forest management plan formulated during the first phase (PD 54/99 Rev. (F) but could not be included in the Clean Development Mechanism (CDM). It was therefore necessary to establish activities for the rehabilitation and conservation of forest lands as agreed in the management plan and to address the lack of valuation of non-traditional goods and products and environmental services other than carbon sequestration.

Development objective: Test a new financing model that combines sustainable tropical forest management with the design and implementation of financing mechanisms that will include payment for environmental services.

Specific objective: Implement forest management systems in pilot areas integrating community-based forest land rehabilitation activities with systems of payment for environmental services (particularly, climate change mitigation and adaptation, and the conservation of biological diversity), thus improving the capacity of the communities to secure viable alternatives to guarantee sustainability.

Expected duration and general costs:

The project was initially planned to be implemented over 36 months. However, given the difficulties encountered in the recruitment of personnel and the tender process for the production of plant material, the project was granted a two-year extension.

Budget:

ITTO:	US $561.896
CORNARE:	US $701.001
EMPA:	US $62.719
TOTAL:	US $1.325.616

4. OVERALL SYNTHESIS OF THE EVALUATION

4.1 Overall function and significant contributions of the two projects towards the conservation, sustainable management and/or rehabilitation of tropical forests and payments received for the environmental services they provide in Colombia, taking into account ITTO objectives, the Yokohama Action Plan and Objective 2000.

Between 1998 and 1999, the Government of Colombia launched a Sustainable Forest Management development process by establishing the Ministry of the Environment (MINAMBIENTE), introducing the concept of Sustainable Development into the National Constitution and initiating a strategy aimed at reducing pressure on natural forests through a national forest plan, the implementation of biological corridors and a decentralization process through the establishment of the Autonomous Development Corporations, such as CORNARE (Autonomous Corporation of the Negro and Nare River Basins). At the international level, the Government ratified the Kyoto Protocol, which opened the way to new avenues and opportunities for the financing of sustainable forest management programs. This new political, technical and administrative context created an interest in and encouraged MINAMBIENTE and CORNARE to implement a project on SFM financing alternatives based on the Clean Development Mechanism (CDM) of the Kyoto Protocol.

In this context, the implementation of project PD 054/99 Rev. 2 (F) represents a major milestone for both ITTO and Colombia, as they have managed to put into practice the policies and strategies of the National and Regional (Rio Negro) Governments related to the reduction of carbon emissions and the use of carbon offsets or credits as an alternative mechanism for the financing of SFM. Therefore, not only did they advantage of the moment and enabling opportunities of this process, but the project itself contributed, in an effective manner, to enhancing the policy and strategic aspects of the forest sector at the national and regional levels, which in turn gave rise to several other initiatives and rehabilitation, connectivity and reforestation projects such as an IDB project for the restoration of 300,000 - 400,000 ha of degraded forest lands.

Another noteworthy benefit of project PD 054/99 Rev. 2 (F) was its contribution to the development of guidelines for the establishment of CDM projects by the Ministry of the Environment and Sustainable Development, specifically in relation to the policies on land tenure for those persons who were in possession or were the peaceful holders of potential eligible areas for the implementation of CDM projects.

In view of the fact that there are large areas of forest lands and degraded forests in the project´s area of influence that do not qualify under the CDM objectives of the Kyoto Protocol, a complementary project was developed and approved for implementation with the aim of rehabilitating the aforementioned lands within a non-Kyoto framework (Project PD240/03 Rev. 1 (F)). An important achievement or impact of Project PD240/03 Rev. 1 (F) has been its strong influence on land-use planning activities through the amendment of Agreement 016 of 1998 (today known as Agreement 250 of 2011 - “Agreement No. 250 of the BOARD OF DIRECTORS of 10 August, 2011” - which established new guidelines for land-use management activities in the San Nicolas Valley sub-region, made up by the Municipalities included in Agreement 016 of 1998 stipulating the adjustment of regulations and conditions of climate variability and the adoption of mitigation and adaptation measures to address these challenges.

As a result of project PD 240/03, a management plan was prepared and coordinated with the communities for the rehabilitation of ecologically significant forest areas, which included conservation and forest land rehabilitation activities, as well as the sustainable harvesting of non-traditional forest products.

With regard to the International Tropical Timber Organization, these projects respond to and reaffirm the Objectives of ITTO, which are clearly established in the INTERNATIONAL TROPICAL TIMBER AGREEMENT, 1994 and 2006 and are in accordance with the 2006 Agreement in the following areas:

Objective e) *Promoting improved understanding of the structural conditions in international markets, including long-term trends in consumption and production, factors affecting market access, consumer preferences and prices, and conditions leading to prices which reflect the costs of sustainable forest management.* Both projects have made a very positive contribution to the achievement of this objective through the development of a methodology to identify and open up the markets for carbon credits and environmental services.

Objective f) *Promoting and supporting research and development with a view to improving forest management and efficiency of wood utilization and the competitiveness of wood products relative to other materials, as well as increasing the capacity to conserve and enhance other forest values in timber producing tropical forests.* Both projects have implemented a great number of basic and applied research activities that have significantly contributed to improving the knowledge available on forests and their ecology, both in natural forests and secondary and degraded forests. These projects significantly contributed to the valuation of forests and forest lands, particularly in areas considered to be marginal or low productivity lands, as well as to landscape management, the rehabilitation of water systems in micro-watershed areas and in-depth, detailed studies on native endangered forest species, including studies on their use in propagation and reforestation activities, such as the work undertaken by the Catholic University of Eastern Rio Negro (Universidad Católica del Oriente de Rio Negro).

Objective g) *Developing and contributing towards mechanisms for the provision of new and additional financial resources with a view to promoting the adequacy and predictability of funding and expertise needed to enhance the capacity of producer members to attain the objectives of this Agreement.* The objective of both projects was to develop alternative financing mechanisms for the development of technologies that would strengthen the technical and operational capacities of forest operators (small forest owners and entrepreneurs), and strengthen sustainable forest management. In relation to project PD 054/99, this was achieved through the sale of carbon bonds or certificates that have been financed through the World Bank (a sale of 129,000 MT of Carbon has been made for 2012, and a further 279,000 MT out of a total of 408,000 MT in 2017 for an area of 1,100 ha.), with other potential buyers also having been identified. With regard to project PD 240/03, a methodology has been designed on Environment Actions (EA) for the payment of or compensation for environmental services which in both cases contribute new financial resources to improve technical knowledge and SFM.

Objective j) *Encouraging members to support and develop tropical timber reforestation, as well as rehabilitation and restoration of degraded forest land, with due regard for the interests of local communities dependent on forest resources.* These projects have succeeded in developing intensive activities in the fields of afforestation and reforestation, restoration and rehabilitation of degraded and secondary tropical forests. To this end, they have taken into account the ITTO guidelines on sustainable forest management and the ITTO guidelines for the restoration, management and rehabilitation of degraded and secondary tropical forests. Although the original target for the establishment of plantations was 1,400 ha, it had to be reduced to 700 ha due to costs, and 550 ha (or 80% of the new target) have so far been established. With regard to restoration activities, the projects worked on the restoration or rehabilitation of 480 hectares and on the biological corridor which includes 5 nodes with a total area of 30,812 ha.

Objective m) *Encouraging members to develop national policies aimed at sustainable utilization and conservation of timber producing forests, and maintaining ecological balance, in the context of the tropical timber trade*. In general terms, both projects effectively contributed to enhancing the political and strategic values of the forest sector at the national and regional levels, which in turn has given rise to several other restoration, connectivity and reforestation initiatives and projects, such as the join IDB project for the restoration of 300,000 to 400,000 ha of degraded forest lands.

Furthermore, both of these projects are clearly and effectively consistent with the priorities established in the Yokohama Action Plan and the current ITTO Action Plan 2013-2018.

Strategic priority 1: Promote good governance and enabling policy frameworks for strengthening SFM and related trade and enhancing SFM financing and investment. Ensuring political will and provision of resources from CORNARE to both projects; the establishment of MASBOSQUES; the development of the "Plant it" Program (*Programa Plántalo*); training program for different stakeholders; strategic partnerships and joint activities with Universities (Catholic University of the Eastern Region and National University of Medellín) and other organizations (EMPA, TNC, Local communities); these are all clear proof of the contribution of these projects to improving and consolidating governance structures and regulatory frameworks in support of SFM.

Strategic priority 2: Increase the contribution of tropical forests to national and local economies, including through international trade. The development of mechanisms such as Carbon Certificates and Environmental Bonds are effective contributions to increase the economic and social potential of forests and strengthen the economy of the population in the projects' areas of influence and at the national level (according to estimates made by the consultant, Carbon Certificates can cover approximately 30% of the costs of the establishment and management of forest plantations), as the experiences and results obtained are of public interest and national scope. The document on Environmental Accounting (*Cuentas Ambientales*) is an excellent example of this contribution and represents a milestone in the national CDM process. Furthermore, it can be used as a consultation document in neighboring countries or in countries with tropical forests in general.

Strategic priority 3: Enhance the conservation and sustainable use of biodiversity in tropical timber producing forests. The forest inventory, the development of a bio-physical baseline, the management plan, the national accounts, the results of the botanic-taxonomic research, the studies on the use of many native species and the development of techniques for the production and marketing of non-timber forest products, are all proof of this.

Strategic priority 4: Reduce tropical deforestation and forest degradation and enhance the provision of environmental services. Project PD 240/03 was precisely aimed at the conservation and restoration of degraded forest resources and the valuation of lands

with reforestation potential that are currently valued and being looked after by small land-owners, who are now better equipped to look after their forests and ensure that they are not over-exploited or degraded through the implementation of sustainable forest management plans.

Furthermore, both projects were also consistent with Strategic priority 5, aimed at improving the quality and availability of information on tropical forests, forest product markets and trade, as well as with the ITTO guidelines for the restoration, management and rehabilitation of degraded and secondary tropical forests.

With regard to SFM and the principles established in the ITTO guidelines, the outputs and objectives of both projects were in accordance with Principle 3: "Strong and continued political commitment at all levels is indispensable for the successful establishment and management of planted forests". A clear and consistent political commitment was made both at the national (Ministry of the Environment and Sustainable Development) and regional (CORNARE) levels, which ensured full institutional and economic support for the achievement of the objectives and goals of both projects. Furthermore, the projects managed to establish and strengthen institutional capacity and develop integrated land-use management plans, as stipulated under Principle 4 of the ITTO Guidelines on SFM.

The consultation procedures and participatory mechanisms, as well as the training activities undertaken by both projects for local community members and all other beneficiaries, are consistent with Principle 5 of the SFM guidelines, thus making substantial progress in institutional planning processes. The implementation of a detailed forest inventory, which was used as the basis for the formulation of the forest management plan and the environmental accounts, is fully consistent with Principle 8, which establishes that inventories on resources and forest lands should establish the status of all forests regardless of their ownership status.

The *ITTO guidelines for the restoration, management and rehabilitation of degraded and secondary tropical forests* have been an important source of inspiration for the implementation of the activities envisaged in the objectives and expected outputs of both projects, particularly of project PD 240/03, which were fully consistent with the following principles:

I Attain commitment to the management and restoration of degraded and secondary forest landscapes
II Formulate and implement supportive policies and appropriate legal frameworks
III Empower local people and ensure the equitable sharing of costs and benefits
IV Employ integrated approaches to resource assessment, planning and management
V Take an adaptive and holistic approach to forest management, emphasizing environmental and social values
VI Promote economic efficiency and financial viability
VII Guarantee participatory monitoring and evaluation as a basis for adaptive management
VIII Utilize appropriate ecological and silvicultural knowledge and efficient management practices.

In summary, both projects have been implemented rather professionally, with scientific rigor and closely following the objectives, priorities and guidelines of the ITTO. Furthermore, they have also strictly complied with the policies, objectives and strategies of both the national government of Colombia and CORNARE's regional development plan.

4.2 Overall contribution of the projects in building capacity to identify, formulate and implement CDM-AR projects aimed at the restoration, management and rehabilitation of degraded and secondary tropical forests in Colombia.

Both projects managed to put together high level professional teams who were very committed to achieving the goals and objectives of the projects. In addition, they developed excellent direct relations with all stakeholders in and outside the project area, even at the national and international levels. The strategic partnerships that were established through agreements with the universities and other technical, social and scientific organizations have been as a whole a permanent and very effective learning process and today the lessons learned through this process are benefitting the whole of the national and regional forest and environmental sectors.

The implementation of both of these projects went through difficult and complicated stages, particularly due to the fact that they were facing and assuming very serious responsibilities in a not very well known or widely disseminated issue such as the Clean Development Mechanism. The most explicit information on the mechanism was contained in the Kyoto Protocol, and even in this context there were many uncertainties and unknown elements about its potential for success. However, the project with its team of young professionals accepted the challenge and little by little they developed a fluid process that has become the standard at the regional and national levels, and the lessons learned and experience gained in this process have strengthened and improved capacities for the identification, formulation and implementation of CDM-AR projects.

The important outputs and experiences of project PD054/99 have had very significant impacts on the approval and financing of other new projects, such as the Macarena Project (with the Government of the Netherlands) on supporting voluntary initiatives in the Eastern Plains region and the Cocomansur Project implemented with the local communities and the Environmental Action Fund.

Undoubtedly, the establishment of the Corporation for the Sustainable Forest Management - MASBOSQUES has ensured the long-term continuity of the different projects that were implemented through the development of various studies undertaken as part of the project "Alternative Financing Model for Sustainable Forest Management", ensuring the continued implementation of the Corporation's approach in proposing strategies for the conservation of forests as well as extending this approach in their area of

influence. This resulted in the development of the project "More Forests for Medellin: A Healthy Environment for the Present and for the Future", which was aimed at testing and improving, in the Medellin Municipality, the experiences of CORNARE and MASBOSQUES experience in the project on Alternative Financing Model for Sustainable Forest Management in San Nicolas.

Furthermore, by giving continuity to the outputs achieved through the implementation of the project on Alternative Financing Model for Sustainable Forest Management in San Nicolas, CORNARE has been able to establish partnerships and agreements with the aim of organizing workshops and training on the harvesting and utilization of non-timber forest products. For example, with the Forest Regional Administration made up of the municipalities of San Luis, Cocorna, Puerto Triunfo and San Francisco, it concluded an agreement for the sustainable harvesting of a non-timber wild palm species - Iraca (*Cardulovica palmata*) - in the canyons of the Melcocho, Santo Domingo and Dormilón rivers (Agreement 278-2011). The following activities were implemented through this agreement:

- Training workshops
- Construction of a drying kiln chamber
- Provision of production materials

These activities are being implemented with an organized grassroots group called "Amigos del Bosque" (Friends of the Forest), an organization made up of local farmers who have been working in areas related to the marketing of seeds of native forest species and in-nursery propagation of native forest species, and who have demonstrated self-management capacity in their communities.

4.3 Global impact and relevance of the two projects on the executing agencies, the forest sector, the local forest-dependent communities and relevant neighboring countries.

One of the great achievements of the project on "Alternative Financing Model for Sustainable Forest Management in San Nicolas" has been the strengthening and participation of the institutions located in the project's area of influence, generating a feeling of ownership among them for each of the activities developed by the project.

CORNARE
Universidad Católica de Oriente (Catholic University of the Eastern Region).
Junta de Acción Comunal (Community Action Group)
Environmental Organizations (NGOs)
Corporación Empresarial del Oriente CEO (Association of industries located in eastern Antioquia)
Municipios Asociados del Oriente Antioqueño MASORA (Associated Municipalities of Eastern Antioquia)
Corporation of Studies in Environmental Education and Research.
Government of Antioquia.
Universidad Nacional de Colombia Sede Medellín (National University of Colombia - Medellin Campus).
Joaquin Antonio Uribe Botanical Gardens of the city of Medellin.
University of Medellin.
Asocolflores (Colombian Association of Flower Exporters)

Another project achievement has been the international positioning of the Corporation and the credibility it has gained in the management of international resources as a result of the transparency and accountability it demonstrated during the implementation of the different project goals. This was clearly demonstrated in the various technical committees established during the life of the project.

"Planting a Future" (*Sembrando Futuro*) is a project that has been developed by CORNARE in 14 municipalities that were not part of the "Alternative Financing Model for Sustainable Forest Management in San Nicolas" Project with the aim of establishing plantations with the participation of displaced and vulnerable communities. Some of the main activities developed by the project included the strengthening and establishment of organized groups in order to guarantee the long-term sustainability of the project. Furthermore, one of the major achievements of this project was the development of the activities implemented in the Financing Model project, through direct participation in several educational and training events. As a result of this, through the implementation of the CDM Reforestation project of San Nicolas, agreements were established with these groups to facilitate the implementation of project activities and to provide feedback on the experiences and knowledge gained on this issue.

The support that has led to the expansion of the project to other spaces and initiatives was achieved thanks to the openness and transparency of the links established with the different institutions, which has, among other things, given rise to the creation of the HUCO herbarium (Herbarium of the Catholic University of the Eastern Region), the establishment of the Flora Group of the Catholic University of the Eastern Region and its listing and registration with Colciencias of the Botanical Gardens, and the production of a virtual catalogue of native flora species in the webpage of the Catholic University of the Eastern Region. In this context, it is important to emphasize the establishment of a research group and the experience derived from the various studies implemented under project PD 054/99, as well as the continued employment of several professionals who were hired by the project and who are now working for the different institutions involved. Cultural change and environmental awareness have been two of the main driving

forces of environmental management activities in Eastern Antioquia, and all this thanks to the direct participation of the communities in every one of the projects implemented by the Corporation.

The dissemination of the initial project outputs has resulted in the implementation of initiatives and the availability of resources for the restoration of 200 hectares in the Magdalena River (Miel-Nare rivers) and the rehabilitation of public lands in San Nicolas and of 280,000 ha of degraded lands at the national level. The central government also took a very important political decision by approving Act No. 1450, which provides for a 1% levy on the regular income of municipalities for the acquisition of vulnerable areas found along the headwaters of watersheds, and the vendors of these lands to the State (municipalities) will benefit from tax exemptions.

In short, the project has generated a new ecosystem approach in the forest sector and within the clean development mechanism, such as mitigation actions currently being proposed by MADS (Ministry of the Environment and Sustainable Development), for example, the incorporation of both productive and abandoned cattle-ranching lands into forest and agroforestry systems that will be used to design and implement new projects and programs.

4.4 General achievement of objectives and assessment of overall project efficiency

All activities implemented during the life of both projects were aimed at achieving their development and specific objectives, the central thrust or mission of which was to implement forest management systems in pilot areas that would integrate greenhouse gas emission reduction activities, carbon sinks, development of a carbon certificates market and the ecological restoration of vegetation cover in the region. These activities, to be coordinated with the local communities, would have the required instruments to integrate payment for environmental services (particularly climate change mitigation and adaptation and the conservation of biological diversity), thus improving the capacity of the communities to secure viable alternatives to guarantee the sustainability of forest management. To this end, the projects established a great number of agreements and contracts from which they obtained satisfactory and decisive results for the achievement of their objectives. To achieve these results, the projects also ensured the participation of rural communities from the municipalities of the region through the organization of training courses on different aspects including the implementation of restoration and conservation systems designed by the project which were of great interest to the communities as a whole.

During the consultation stage for the implementation of restoration activities, the projects also worked with land owners on the formulation of legal instruments for the payment of environmental services to be generated through the activities being implemented, and on how this would benefit them both environmentally and economically. However, the projects soon realized that this would be a long process given its innovative nature and the fact that the international regulations on this subject are as yet not clear.

The outputs achieved in project PD 240/03 were the basis for the identification, valuation and quantification of environmental services in the region. It could be concluded that despite the fact that the project did not test the financing model combining sustainable forest management with the design and implementation of financing mechanisms to include payment for environmental services, the region now has a starting point to define what should be the appropriate payment made to the owners of the lands where restoration and conservation activities are to be implemented, and this will be a huge incentive for the communities to protect and sustainably manage their forests.

However, it is quite clear that this will depend on the international and national negotiations in the area of environmental services and on the interest of buyers, and therefore, this could be a slow process. This said, it is also clear that sooner or later it will be achieved, just as it happened with the CDM project which was eventually established.

The current situation after project completion is satisfactory given the quality of activities developed throughout the implementation period. The project managed to address the identified problems of insufficient knowledge about forest ecology, a lack of knowledge of the local communities on the requirements for the sustainable production of non-traditional forest products and their marketing, the insufficient quantification of other environmental services, the lack of financial instruments and the legal barriers that needed to be overcome to provide the communities with viable alternatives. The project managed to resolve these problems trough the research carried out on the basis of the agreements entered into with the Catholic University of the Eastern Region, the Municipality of El Retiro, the Botanical Gardens of Medellin and the GENESIS Corporation.

The research activities that were implemented provided information on forest ecology, as these activities included phenological studies of endangered species, adaptation of species to degraded areas, seed sources and propagation protocols for native forest species of interest in restoration, conservation processes, and utilization of promising species, among others, thus improving the knowledge about forests in the region.

Furthermore, the project raised awareness and provided training to the local communities on the sustainable management and the utilization of non-traditional species so as to ensure that these communities could derive a livelihood from their forest resources without destroying the forests. To this end, they were taught how to process products from non-timber species and were then trained on business related issues such as bio-trade, production, marketing and accounting procedures, in order to motivate local farmers to use their forests by turning them into environmentally and financially sustainable enterprises.Thus, business plans were drawn up and analyzed for the establishment of bio-trade enterprises in response to business ideas from some of the local farmers who were trained by the project.

Furthermore, the project managed to implement actions for the identification, quantification and valuation of environmental services. This encouraged local farmers to preserve their forests as they could obtain economic benefits at any moment for their conservation as in many cases farmers feel that forests could be used for other income-generating purposes given that they are paying taxes for these areas anyway.

The initiative to formulate a project to complement aspects related to conservation, restoration and reforestation activities aimed at reducing carbon emissions, in other words, those activities that did not qualify for support under the CDM of the Kyoto Protocol, was a successful and timely effort which opened the way for the development of new initiatives in this area, taking into consideration 5 intended outcomes.

One of the problems identified during the evaluation was that in both projects the means of verification established in the logical framework were too general and did not provide for an adequate evaluation of the outputs and outcomes achieved.

In relation to the selection of the project operational area, the results were excellent and thanks to that, we can now see a series of successful achievements outside the project's area of influence that can be extrapolated or tried out in other locations.

On the other hand, the estimates made of the areas to be pre-established for the biological corridors and the areas to be restored were rather ambitious, despite the lessons learned during the first phase (PD 054/99), and eventually had to be reduced. Given the fact that this was a pilot project related to a thematic area where there were previous experiences, it would have been wiser to establish somewhat more modest goals, but nevertheless the lessons learned have been extremely useful.

Both projects had some important start-up delays due to operational and methodological issues that should have been addressed previously within the framework of project PD 054/99, however, once they became operational they demonstrated a high degree of efficiency in the management of the human, physical and economic resources allocated for their implementation, and the following aspects should be noted in this respect:

a) A high professional quality of the personnel assigned to the projects, from the Project Coordinators to the auxiliary technical staff and community leaders, which was maintained throughout the duration of both projects.

b) Efficient use of budget resources, which despite the long period of time added to the originally established timeframe, were sufficient to finalize all the activities. It would be true to say that CORNARE's operational and financial capacity had a great influence in this outcome, as it maintained at all times the clear political decision to support the objectives and goals that it had established for this project. The project even managed to secure additional funding from the World Bank, for a total of US$ 480,000.

c) Good coordination and clear distinction between goals, procedures and specific activities, both at the field and desk levels, and between the expected outcomes and goals for the two projects which were implemented in parallel for several years. In this regard, the professional capacity of those in charge of project implementation, as well as of the specialists in different areas such as silviculture, land-use planning, rural sociology, training and SFM, played a major and key role in the achievement of expected objectives and outcomes. However, this is not necessarily self-evident at the beneficiary level and through the evaluation of the impacts of each project and the specific outcomes achieved by each of them in their area of influence; this is an aspect that would require a more in-depth and detailed assessment.

d) The effectiveness of the projects in relation to the originally established goals in concrete, quantitative terms related to the areas, certificates, investors, etc. involved, could be considered as average. However, the most important objective was to develop a viable methodological proposal aimed at finding an alternative or complementary financing mechanism. This was in fact achieved by the projects, despite the size and magnitude of the areas and values, and the perhaps excessive optimism that accompanied the project formulation phase.

e) The projects were quite effective and efficient in the production of reports, technical documents, progress reports (16), which has facilitated the assessment of their evolution and development over their lifetime.

4.5 Adequacy of project cost structure and use of project resources

The final costs of the projects were: US$ 1,244,085 for project PD 54/99 and US$ 1,325,000 for project PD 240/03, and both projects were fully implemented. Moreover, CORNARE contributed additional funds to both projects to cover costs higher than those originally estimated, in particular, costs related to the payment of professional fees, thus ensuring the continued engagement of valuable professionals who had been working in both projects for a considerable period of time.

With regard to the budgetary resources, project PD 54/99, upon completion, had used US$ 1,234,955 out of the total budget of US$ 1,244,085 i.e. almost 100%. The remaining balance was later used for the dissemination of project outputs in DVD and printed report formats. However, the project had significantly higher costs in relation to subcontracts (an additional 25%), capital items (an

additional 25%) and, particularly, in miscellaneous expenses which increased from the original US$ 7,500 budgeted to a final total of US$ 206,000 due to the time extensions granted for the implementation of the project.

The cost breakdown was: personnel costs 12% of the budget, sub-contracts 40%, capital items 13% and miscellaneous expenses 17%. This represents a very reasonable cost distribution, particularly with regard to personnel, and even more so when the project extensions are taken into account. It is important to point out that the executing agency accepted responsibility for all additional extra-budgetary costs, for a total amount of more than US$ 317,000, so the total project budget was in fact about US$ 1,550,000.

With regard to project PD 240/03, the budget initially approved was about US$ 1,191,074, which was fully spent in the implementation of the project with similar results as the previous project.

In terms of cost, the projects have demonstrated a high level of efficiency in the administration of the budget from both sources. However, the greatest project value has been the social benefits generated, including the creation of employment, the participation and strengthening of the local communities, and the generation and management of knowledge and information on the potential of natural resources, including on their management, conservation and sustainable utilization.

The volume of technical and scientific information, especially information related to a new clean development model, the methodologies developed for the forest inventory, the zoning of areas suitable for CDM projects, the forest management plan, the study on environmental accounting and CER and VER certificates, environmental bonds, the valuation of forest resources and the revaluation of lands, the herbarium at UCO, the strengthening of the community base, the establishment of MASBOSQUES, the ability of CORNARE and MASBOSQUES to secure additional funds, the sale of carbon certificates, as well as the development of an excellent inter-institutional relationship and the new options or alternatives that the local farmers are taking on board and starting to implement are all very valid reasons to reach the conclusion that the project has been highly efficient and effective in terms of both management and implementation.

It is however very difficult to establish a cost-effectiveness ranking in numerical terms. In this regard the projects evaluated have not systematized all the economic information on intervention costs, the evolution of the valuation of reforestation, restoration and environmental services related activities, for example, the improvement of water sources and consumption. Indeed, it is precisely this aspect that would be worthwhile developing in the short term, so as to demonstrate with objective, concrete and detailed information the benefits or gains that projects such as these can have in the tropical regions of Latin America.

5. RECOMMENDATIONS

5.1 The need for similar projects in the future and their potential objectives

Considering that these were the first projects of this nature financed by ITTO in Latin America and among the first projects of this nature financed globally through ITTO, the experiences and outcomes achieved have been very useful at the international level and have demonstrated that it is necessary to undertake more initiatives on the issue of climate change and the REDD process in tropical forests, as this will contribute to strengthening and improving the contribution provided by tropical forests at both the general and country levels.

Specifically now, when the REDD+ process and the ITTO thematic program REDDES require concrete practical experiences, it is necessary to implement this type of programs for the following reasons:

- The CDM could help to increase the competitiveness of forest activities and sustainable forest management.
- Under the current circumstances, the design of the CDM and REDD+ components in a forest project is still a long and costly process that requires the formulation of appropriate guidelines and methodologies for the Amazon region.

However, it is necessary to work on several key elements that could be further developed or that may require additional support to promote market and payment mechanisms based on results. The main priority areas identified for implementation at the national level are as follows:

- Develop short term procedures that will allow project sponsors within the REDD+ framework to secure carbon tenure rights so that they can later formulate laws and decrees to clarify carbon tenure rights based on natural resource and land tenure rights.
- Develop a national platform to register REDD+ program activities.
- Formulate policies and develop procedures for the accreditation of carbon offset systems.
- Adopt a series of regulations on how to determine RELs and how the MRV methodology should be carried out and widely disseminated.
- Continue promoting the participation of local communities and strengthen their capacities so as to ensure that the design of the REDD+ program reflects the consensus agreement of all interested stakeholders.
- Develop and/or adopt a set of standards for SESA (Strategic and Environmental Social Assessment) that can be applied to the design of the REDD+ program and to all other emission reducing activities.

5.2 Innovative design and strategies for projects that promote the restoration, management and rehabilitation of degraded and secondary tropical forests

The results achieved through the implementation of this project have clearly demonstrated that the active participation of rural communities in their own development efforts is an essential element in improving their living conditions and quality of life. However, rural communities will only participate with interest in forest activities if it can be shown that these will benefit them and that they are a priority and necessary.

From the very start of the activity-planning process, the project must ensure the participation of the communities and provide them incentives so that they will participate in the formulation of projects and, particularly, in the management of their forests and the species therein that can be sustainably used. To this end, there is a clear need for ongoing training and exchange of knowledge and for securing the commitment of the local communities.

The project design must take into account the fact that the participatory diagnosis is very different from one community to another and therefore it should be adapted to the specific needs of a given community after duly considering the natural resources and natural areas available for the implementation of project activities as well as the interest of the communities in the project. This is why the planning of forest systems must incorporate the species and arrangements suggested by the local communities themselves.

Community needs such as the availability of multiple-use species, technical and management training, agroforestry and silvicultural/ranching alternatives, support for soil restoration and conservation, the creation of small forest enterprises and improved market access, were all part of the demands of the rural communities that were taken into account during the implementation of the project.

It is important to consider agroforestry systems with short-term crops (corn, sugarcane, coffee) taking into account that these provide a very favorable option that will contribute to improving the nutritional levels of the population and will provide landowners with immediate economic benefits.

5.3 Target groups (countries, governments, forest sector communities)

It should be remembered that the technical support provided is only temporary and that it is important to learn how to contribute to strengthen the capacity of rural communities in order to build a strong grassroots base as well as the institutional, technical and legal framework. In this way, there will be less dependence on external parties and it will be possible to establish more exchange and cooperation relations among the different stakeholders concerned.

Public and private institutions and communities must acquire the skills necessary to efficiently take part in the diagnosis, planning, implementation and evaluation of production projects related to the management of their natural resources, in accordance with their needs and interests and the realization of their rights.

In particular, work needs to be intensified in establishing contacts and in ensuring the raising of awareness and the participation of the national private sector, so that it becomes a dynamic and decisive player in CDM and REDD programs, through its participation in the payment for environmental services scheme, the development of forest restoration and reforestation projects, and the market of carbon certificates and environmental bonds. All this could translate into the accelerated implementation of REDD programs in the different countries and particularly, into the establishment of a sustainable system without the need to depend on foreign investments in a voluntary market for environmental services.

5.4 Institutional arrangements

The project design should clearly define the responsibilities of each institution so that there are no misunderstandings during the implementation stage.

The experience gained during the implementation of the projects under review should be seen as a “pioneer experience” and should become a guide for the implementation of restoration and conservation projects in other areas.

At the national level, it is important to develop a national platform to register REDD+ activities, and to formulate policies and procedures to validate carbon offsets, by adopting a set of regulations on how to define RELs and how the MRV will be implemented, so that they can then be widely disseminated.

It will also be important to clarify whether the projects will be taken into account in the future national and sub-national carbon accounting regulations and how this will be implemented (this could be part of the regulations adoption process) to continue promoting the participation of local communities and to strengthen capacities so as to ensure that the design of the REDD+ program reflects the contribution and consensus of all interested stakeholders.

In order to consolidate project outcomes it will be necessary to maintain as far as possible the same technical teams for the duration of the project and for future projects. This can help build confidence in the communities as they will already know the people responsible and in many cases they will have established interpersonal relationships with them.

There must be a clearly defined administrative structure, with ongoing evaluation of the activities implemented and continuous feedback in the form of suggestions and recommendations to improve the procedures.

5.5 Monitoring and evaluation procedures

CORNARE should take on project outcomes as an environmental policy within its jurisdiction, so that the impacts of the restoration and conservation activities are enhanced and are reflected in the wellbeing of the community. Furthermore, the community should make a formal commitment to sustainably manage their forests, as the main factor that would affect the sustainability of project outcomes would be the lack of continuity of the social process, which would discourage the communities as they would feel that there was no support for their ideas and needs for the sustainable management of their forests.

Upon project completion the technical personnel will move on to other activities. However, most of them should maintain a relationship with the projects. This should be encouraged and ensured through workshops, meetings, consultancies and other types of activities, as otherwise this could impact the achievements made. The communities get to know and identify with the personnel involved so if they were to be changed, it could well delay or affect the implementation or continuity of activities.

Projects such as those covered by this evaluation should have a secure institutional and political field or platform so that they can be maintained as long-term political decisions. They should have sufficient economic and human resources so that they can become catalysts to generate new resources and manage the knowledge acquired throughout process.

5.6 Actions required to maintain or increase the effects of the sustainable management of forest resources and Objective 2000

For the design of this type of projects it is essential to have good knowledge of the region and of the stakeholders in the region, and to do preparatory work to disseminate the relevant information and to motivate the local communities to participate and to commit themselves with project objectives, goals and activities.

It is also necessary to have very clear concepts and definitions on the particular features or idiosyncrasies of the CDM, climate change and REDD processes, as these are complex programs both in design and structure and require excellent harmonization between the interests of users and beneficiaries, with sustainable forest management as the ultimate goal or vision. This is the fundamental basis of ITTO's Objective 2000 i.e. the national and international production and trade of timber sourced from forests under sustainable management.

In order to achieve this objective, which is ratified and complemented by ITTO's 2006 Agreement, it will also be necessary to support pilot activities within the REDD+ framework at the local level (projects) and jurisdictional levels (for example, the RACs or the departments), obtain the necessary financing to prepare, implement and maintain the REDD+ program, promote market-based approaches and outcome-based payment schemes, and promote the widespread acceptance of carbon credits.

Other relevant actions include:

- The use future fiscal revenues or environmental payments and royalties to finance today's projects, for example through the issue of municipal bonds.

- The active and permanent participation of the community (understood as the meeting of the different social groups involved and State representatives) as an element of vital importance in order to promote the sustainable management of forest resources.

- The implementation of an in-depth review of forest-related studies that may have been conducted in the region so as to identify future research and training needs based on the results of these studies.

- On the basis of previous studies available, time-schedules and budgets should be prepared for the implementation of each of the planned activities.

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