

**PROJECT INFORMATION DOCUMENT (PID)  
APPRAISAL STAGE**

Report No.: 37388

<b>Project Name</b>	<b>COLOMBIA: San Nicolas Carbon Sink and Arboreal Species Recovery Project</b>
<b>Region</b>	LATIN AMERICA AND CARIBBEAN
<b>Sector</b>	Forestry (100%)
<b>Project ID</b>	P098615
<b>GEF Focal Area</b>	Climate change
<b>Borrower(s)</b>	N.A.
<b>Implementing Agency</b>	Masbosques
<b>Environment Category</b>	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined)
<b>Date PID Prepared/Updated</b>	August 29, 2006
<b>Date of Appraisal Authorization</b>	
<b>Date of Board Approval</b>	ERPA: October 24, 2006

### 1. Country and Sector Background

**Global climate is changing rapidly.** The Third assessment report of the Intergovernmental Panel on Climate Change (**IPCC's Third Assessment Report, 2001**) has concluded that with the continuing emission of greenhouse gases the Earth's mean surface temperature will increase between 1.5 to up to 5.8 degrees Celsius during the next 100 years. Preliminary findings of the Fourth Assessment Report, due to be released by the year 2007, corroborate the range of the projected increase<sup>1</sup>. A change of this magnitude is unprecedented and represents the most serious challenge facing the global ecosystem. The IPCC's Third Assessment Report summarizes the anticipated climate changes, including warmer temperatures, alterations of the hydrological cycle, drier soils, changes in weather extremes, rising sea levels, changes in agricultural productivity and ecosystem composition. Many of these changes will restrict access to natural resources and environmental goods and services, ultimately affecting both ecosystem stability, and human well-being.

**The (thermo-dynamical) momentum of climate change already locked-in, spells major and in some cases catastrophic ecosystem changes with implications for all, but in particular for developing countries and the poor amongst these nations.** This is the result of the emissions of the past, largely driven by developed economies and resulting in significant and irreversible damage to ecosystems, world wide. While countries in Latin America are not large users of energy and therefore not large emitters of greenhouse gases, there do exist in the region sizable opportunities to sink carbon in natural ecosystems while protecting remaining forests through reforestation, natural regeneration and avoided deforestation. The development of these carbon sinks, by necessity located in rural areas will benefit local populations and contribute to improvements in income and thus quality of life.

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<sup>1</sup> The SRES scenarios have been criticized for overestimating future emissions; however, the Post-SRES literature shows an even higher emission range (IPCC, FAR workshop, February, 2005)

**The planet is experiencing species extinction rates unprecedented in human history.** The Millennium Ecosystem Assessment<sup>2</sup>, MA, reported that changes in biodiversity due to human activities were more rapid in the past 50 years than at any time in human history, and the drivers of change that cause biodiversity loss and lead to changes in ecosystem services are either steady, show no evidence of declining over time, or are increasing in intensity. Under the plausible future scenarios developed by the MA, these rates of change in biodiversity are projected to continue, or to accelerate. Climate impacts are expected to further aggravate the situation.

**Colombia is particularly vulnerable to the impacts of climate change.** The first national communication (NC1) to the United Nations Framework Convention on Climate Change (UNFCCC) indicates the high vulnerability of Colombia to the expected impacts from climate change<sup>3</sup> identifying high mountain habitats, insular and coastal areas and health as the areas of primary concern. More recently, studies commissioned as part of the preparation of the second communication and others have confirmed and indicated in more detail trends and impacts in these areas. These vulnerabilities find echo in the findings of the IPCC and are being addressed through the implementation of pilot responses under a GEF-funded project.<sup>4</sup>

**Climate Change impacts will affect forest composition and accelerate processes of land degradation.** Colombia has about 55,000 species of vascular plants, making it the country with the highest density worldwide. With the rate of increase in surface temperature far outpacing the ability of forest species to migrate to more temperate latitudes, anticipated changes can affect mountain forests in the Andes and impact ecosystem integrity. This will add to the on-going process of land use change, where already nearly 42 million hectares have been intervened and transformed from their original state. Forest species, especially those useful in construction and furniture, have been driven to such low densities that several emblematic species are near extinction, such as *Cariniani pyrifomis* (IUCN-CR), *Godoya antioquensis* and *Podocarpus oleofolius*. Further, anticipated drastic reductions in runoffs from Colombia's high altitude moorlands, and tropical glaciers, caused by their warming and rapid retreat will also affect the ability of mountain ecosystems in nearby areas to maintain diversity and provide environmental services. Climate impacts will thus exacerbate processes of land degradation and deforestation, in particular in the Andean region

**Colombia's emissions of GHG are very modest (0.2% of global, with 0.6% of global population).** Within these low intensity emissions, opportunities do exist to mitigate emissions in key sectors, including the development of carbon sinks. Opportunities for GHG mitigation are being actively pursued in renewable energy, wastewater treatment and energy efficiency (Jepirachi, Amoya, Rio Frio and Furatena projects). The National Strategic Study and the first National Communication estimated that 21% of GHG emissions in the country are due to land use change and that over 40% of the opportunities for GHG mitigation in the country are related to reforestation and afforestation. Yet, no action had so far been taken to take advantages of opportunities with carbon sinks in the country.

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<sup>2</sup> [www.millenniumassessment.org](http://www.millenniumassessment.org)

<sup>3</sup> Primera Comunicación Nacional al UNFCCC. IDEAM. 2001.

<sup>4</sup> Colombia: Integrated National Adaptation Project. Project Appraisal Report. Report No. xxx, World Bank

**The region of the valley of San Nicolas is characterized by high levels of poverty.** 48% of the families has no access to potable water, 51% has no sanitary installations, and 20% has no access to health services. Also, there is high percentage of illiteracy in the region, amounting in some municipalities to up to 50% (municipalities of El Santuario and La Unión). The landowners have limited access to credit in order to implement productive alternatives and can most of the time not afford to pay temporary employees to help them cultivate their land. There is also a lack of technical assistance to train landowners on productive and sustainable land uses.

### **Government Strategy**

Colombia is a party to the Convention on Biological Diversity, the Framework Convention on Climate Change and has also signed and ratified the Kyoto Protocol (Law 629 enacted November 30, 2001). Colombia has been a leading participant in the discussions on the provisions and regulations of the Clean Development Mechanism (CDM), in the context of the international negotiations under the auspices of the UNFCCC, and has developed a detailed negotiations agenda on items leading to the definition of the rules for the CDM.

As part of these activities, the Government has completed, with Bank support, a national assessment for the optimal use of the CDM. The Government has, likewise, taken steps leading to the further development of institutional capacity through: a) the organization of an inter-institutional committee under the aegis of the Vice-president's office to ensure full coordination on climate change issues; and b) the set up of a climate change office, which has now been in operation for the last three years. On the basis of the studies sponsored as part of the National Strategic Studies (NSS), other inputs and the development of institutional capacity, the Government has defined the main trusts of a National Climate Change Plan, as follows:

- Strengthen the capacity to adapt to the anticipated impacts from climate change;
- Promote reduction of emissions and increase the sequestration capacity for greenhouse gases;
- Minimize the adverse impacts on the nation's exports of fossil fuels;
- Promote scientific capacity and the availability of information on the impacts of climate change on the nation's economy and ecosystems; and
- Promote financial mechanisms for the adoption and funding of response actions.

**Forestry Law.** On April 2006, the Colombian Congress approved a new Forest Bill. The Bill seeks to establish legal norms that promote the sustainable development of the Colombian forest sector within the framework of a National Plan of Forest Development, and under the coordination of a new National Forest Council. The Bill states that development of the forest sector is of strategic and priority interest for Colombia. The law introduces the concept of 'vuelo forestal'; this allows a separation of rights to land from rights to timber and has particular application for the development of natural forests. Key aspects of the law include:

- The conservation and sustainable management of natural forests and the establishment of forestry plantations on designated soils are considered national priority and of strategic importance for the country's development.

- Measures to stop deforestation and illegal logging, as well as the measures to promote sustainable development in the forestry sector have to be adopted and implemented in coordination between the State, the civil society and the productive sectors.
- The State will promote the development of the forestry sector in terms of its economic, social and environmental benefits. The development of the forestry sector is regarded as national priority for the peace making process.
- Forests and agro-forestry systems fulfill a fundamental function in the production of renewable energy, provision of environmental services, employment generation, national socio-economic development, etc. For these reasons the State will support its development in areas that do not have natural forest coverage.

### **Project eligibility**

The proposed project meets the selection criteria of the BioCarbon Fund (BCF) and will be the first CO<sub>2</sub> (carbon dioxide) emission reduction project in the sector of Land Use, Land Use Change, and Forestry (LULUCF) in Colombia. The project activities correspond to a reforestation effort in accordance with the UNFCCC (United Nations Framework Convention on Climate Change (UNFCCC)) definitions. As indicated above, Colombia ratified the Kyoto Protocol in 2000 and established a Designated National Authority, DNA, which enables the country to participate in the Clean Development Mechanism. This allows the development of carbon sequestration activities, which can generate Emission Reductions (ERs) to be traded in the international market, once certified.

**Eligibility under the Marrakesh Accords.** The area under the program was degraded before January 1<sup>st</sup>.1990 as required by the Marrakesh Accords in order to be eligible for certification of carbon sinks. The project activity will be governed by the forest definition set by the Designated National Authority in Colombia. For afforestation and reforestation project activities the DNA requires a single minimum tree crown cover value of 30 percent, a single minimum land area value of 1 ha, and a single minimum tree height value of 5 meters. These parameters comply with the guidelines of the Marrakesh Accords and make the project eligible under the Clean Development Mechanism. The status of land cover was established through remote (LANDSAT) sensing images taken in 1986 and 2000. The entire area to be reforested had originally been covered with highland and lowland tropical forests, which were later turned into pastures and subsequently abandoned. Carbon sinks were estimated using the ECO2 model of EcoSecurities. The detailed estimates were reviewed during project preparation. A monitoring plan has been prepared to measure the carbon sinks during implementation. The monitoring arrangements will be finalized during appraisal.

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**Non-Kyoto activities.** The project also includes activities that do not conform to the Kyoto protocol and thus do not require compliance with the Marrakesh accords. These activities focus

on avoided deforestation and regeneration of existing forest relicts. The corresponding carbon sinks have also been estimated using the ECO2 model of EcoSecurities and require of a different approach for monitoring, described in the annexes. These arrangements will be reviewed during appraisal.

## **2. Objectives**

**The project is consistent with the CAS and the CEA study.** In terms of the CAS, the project contributes to environmental sustainability and income for the poor (project beneficiaries are mostly small land holders and forest management activities will engage rural manpower). The CEA shows that land degradation and natural disasters are among the most costly problems associated with environmental degradation. In terms of the consequences of deforestation, the CEA recommends the generation of alternatives to diversify non-timber forest products, improve the livelihoods of forest-dwelling communities, and the fostering of capacity for both indigenous communities and the rural poor to profit from the sustainable and productive uses of forest areas and the implementation of payments for environmental services. The project is in line with these CEA recommendations and will contribute to arrest land degradation while promoting reforestation and in the process contribute to limiting landslides and prevent floods, frequent natural disasters in the region. At the same time the project will improve the income of small landowners, through the sale of non timber and agro-forestry products and carbon sinks.

**Colombia's strategy for the use of the CDM.** The project responds to Colombia's strategy for use of the CDM as outlined in the NSS study as it introduces LULUCF projects in Colombia. It also meets the objectives of the Biodiversity strategy in that it seeks to restore endangered or vulnerable arboreal species in their natural habitats. Finally, it meets the goals of the forestry strategy by contributing to reforestation efforts.

**The project development objective is to pioneer carbon sinks in Colombia, through reforestation, agroforestry , on about 2,500 ha of abandoned pastures and through avoided deforestation and induced regeneration in about 7,300 ha of remaining forest stands in the valley of San Nicolas. The project also seeks to protect biodiversity through the recovery of endangered and vulnerable local arboreal species.** The Project will create a sink for carbon (partly through the planting of endangered and vulnerable species) and in the process improve the income of small landowners, through the sale of timber, non timber and agro-forestry products, reduce land degradation and contribute to the restoration of ecosystem integrity in the San Nicolas region of Colombia. The project also includes training and capacity building for sustainable forest management, strengthening of social capital and biodiversity protection. By the inclusion of 20 native species for the reforestation activities and a program aimed at the recovery of populations of 3 endangered species, the project will contribute to restore biodiversity in abandoned pastures. The BioCarbon Fund intends to purchase, 280,000 tCERs, (Temporary Certified Emission Reductions) from the Project, measured in tons of carbon dioxide equivalent (t CO<sub>2</sub>e) and 317,000 tons of emission reductions (ERs) resulting from avoided deforestation, measured in t CO<sub>2</sub>.

## **3. Rationale for Bank Involvement**

The GOC and the World Bank have cooperated in the implementation of a comprehensive climate change strategy that comprises of three elements (see Annex 15): a) strengthening of

institutional capacity, which has been implemented through the creation of the climate change office with World Bank technical and financial support; b) support to the identification of climate impacts, vulnerabilities and adaptation measures, which is being sought through the recently approved, GEF-funded, Colombia: Integrated National Adaptation Project; and c) support for the development of the CDM which has up to now comprised source reduction activities in the energy and waste management sector.

The CDM requires projects to promote sustainable development as defined by host countries. Also emission reductions must be real, measurable and additional. Also, funding for CDM must not divert funds from existing government development aid programs. As for carbon sinks, under the CDM, eligible activities are restricted to afforestation or reforestation. The BCF, a public/private initiative administered by the World Bank, aims to deliver cost-effective emission reductions, while promoting biodiversity conservation and poverty alleviation. In addition to CDM-eligible activities, the BCF will also purchase sinks obtained through ecosystem conservation (avoided deforestation), further contributing, to maintain ecosystems and biodiversity. The development of carbon sinks projects in Colombia would complement the World Bank support of carbon emission reductions in the energy and waste management sector (Jepirachi, Amoya, Rio Frio, and Furatena).

Through the Project, the Bank has a unique opportunity to help alleviate both climate change and poverty by supporting the generation of Emission Reductions (ERs) in rural areas. Specifically, the project will contribute to improve income of small landowners on a long-term basis as well as to the restoration of ecosystem integrity in mountainous areas that are coming under the impacts of climate change (Bradley, Villie, Diaz and Vergara, 2006). In terms of biodiversity, the project will protect and enrich the biodiversity in the valley of San Nicolas using 20 native species in the reforestation activities and by re-introducing three endangered species. (See Annex 7 for detailed description of species). Reforestation activities in the area will also contribute to safeguard the hydropower potential of the region. Colombia and the World Bank will also be able to use this experience to plan for the future expansion of the carbon sinks elements of the Clean Development Mechanism.

#### **4. Description**

**a) Reforestation Program.** The main project activity is the implementation of a reforestation program (developed through a participatory community process) under which individual landowners voluntarily reforest their land. The program includes the reforestation of about 2,500 ha from a total of 11,300 ha eligible for CDM (as defined under the Marrakesh Accords) with 22 species out of which only two are exotic non invasive species (*Pino tecunumani*, *Pino oocarpa*, introduced more than four decades ago in the region). The forestry management program is a component of a much wider watershed management plan in the area led by CORNARE. Under the program, about 2000 ha of highlands will be reforested using plantations and agro-forestry systems, while about 500 ha of lowlands will be reforested using agro-forestry systems. Seventy percent of the restored soil cover will be under native species. A training program for the participating community to properly manage, monitor and maintain the carbon sinks is part of this component.

**b) Reintroduction and strengthening of native vulnerable and endangered**

**populations of arboreal species.** In addition, the reforestation program will be complemented with a program to reforest at least 5% of the restored lands with native vulnerable and endangered species (*Cariniani pyriformis*-IUCN-CR, *Godoya antioquiensis* and *Podocarpus oleofolius*). This will involve the development of nurseries, planting and monitoring protocols and the actual reintroduction in the region of these endangered arboreal species. This component will be largely supported by a Climate Change Implementation Grant (CC-IG), already approved and expected to become concurrently effective with the carbon sink agreement.

c) **Avoided deforestation and induced forest regeneration.** The project will also support the implementation of a program to maintain and promote remaining forest relicts in the Valley of San Nicolas. The program will focus on the conservation and regeneration of about 7,300 ha of existing forest stands with native, locally present species (*Cedrela odorata*, *Tabebuia* ssp, *Quecus humboldtii*, and *Podocarpus oleofolius*). This component will take place in the area of conservation, of the Valley of San Nicolas. The component will include activities that will directly support rehabilitation of degraded forests as well as support to prevent deforestation, mainly through the use of carbon revenues and training.

## 5. Financing

Source:	(\$m.)
Cornare	1.70
Municipalities	0.20
Masbosques	0.40
Bio Carbon Fund	2.1
Climate Change Implementation Grant	0.40
TOTAL	4.8

## 6. Implementation

The project will be implemented by the *Corporation for Sustainable Management of the Forests* (hereafter referred as MASBOSQUES), a public-private partnership integrated by the community at large (represented by the grass-root organizations, *Juntas de Accion Comunal*) municipalities, the regional environmental authority, landowners, the regional association of entrepreneurs (CEO) and two research institutions. It seeks to contribute to the sustainable development in the region by forest activities that combine production of timber and non-timber products. Among the instruments to achieve its objectives, MASBOSQUES promotes markets/systems of payments for environmental services (including carbon sequestration). MASBOSQUES has the technical and management capabilities to implement the project. Its staff has the experience required on reforestation and agro-forestry and project management.

**Other Institutional Support.** Masbosques has sought and secured the participation of ECOSECURITIES, a renowned carbon specialist for assistance with carbon sinks estimates and development of monitoring protocols. It has likewise ensured the cooperation of The Federal Swiss Institute for Research and Testing of Materials (EMPA), for the development of the financial model and the review of the markets for forestry and agro-forestry products. Finally, Masbosques has the strong support of CORNARE, the regional CAR, a partner in MASBOSQUES and the regional environmental corporation in the region with a mandate on

environmental management, including forestry operations. CORNARE has carried out over 12 studies and projects on reforestation in the province of Antioquia.

Under a Climate Change Implementation Grant, secured through a separate Grant Agreement, the project will also count with resources to strengthen the institutional capacity of the local community and provide skills required for proper maintenance of the carbon sink. The grant will be disbursed through CORNARE for the benefit of MASBOSQUES.

## **7. Sustainability**

Carbon Finance provides long term revenues for project execution and monitoring which ensures the sustainability of project activities. The project contributes to improvements in the quality of life of the local population, through the labor and forest product revenues related to the reforestation program as well as a fraction of the carbon revenues as incentive for forest sustainable management. Thus, the local population has an important stake in the success of the project and is strongly behind its implementation. MASBOSQUES is a stable and professional public private sector entity with the support of CORNARE and with enough resources, skills and experience to implement the project. The project, once counting the ER revenues is financially viable (see financial annex). The environmental benefits will further strengthen the sustainability of the project through the development of stable forests in the region. The institutional arrangements include the direct participation of the local stakeholders including the farmer community, the municipalities, the regional environmental authority, various NGOs, one university and various private sector organizations. The primary beneficiaries of the project are the local communities and small landowners. Success of the project will open the door to the use of the Kyoto protocol for purposes of recovery and regeneration of forestry systems in the country and illustrate its use as a tool to recover endangered arboreal species.

## **8. Lessons Learned from Past Operations in the Country/Sector**

The Bank's work on climate change in Colombia builds upon opportunities provided under the Kyoto Protocol through sources such as Carbon Finance (CF) and the Global Environment Facility (GEF). Climate Change Mitigation initiatives, supported through carbon finance include: Jepirachi Carbon Offset Project<sup>5</sup>, Rio Amoya Environmental Services Project,<sup>6</sup> The Rio Frio Carbon Offset Project<sup>7</sup>, and Furatena Agroindustry Carbon Offset Project<sup>8</sup>. San Nicolas will be the first carbon sink project in Colombia and will thus set a precedent for future carbon sink operations in the country. In terms of methodology, the project supports the development of carbon methodologies and additionality tools for wide application in the country. The project will demonstrate how, besides afforestation and reforestation, the BCF is also a tool to address biodiversity protection and strengthen social capital. San Nicolas will benefit from the strengthened capacity, supported through the IDF for the Colombian Climate Change Office.

Previous CDM projects formulated with World Bank assistance in Colombia have demonstrated the need to: a) involve the local community in the ownership of the carbon asset, in the process creating a strong incentive for sustainability; b) ensure financial closure prior to completion of

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<sup>5</sup> Project No. P074426, Emissions Reduction Purchase Agreement signed January 27, 2003;

<sup>6</sup> Project No. P078220, Emissions Reduction Purchase Agreement signed June 28, 2004.

<sup>7</sup> Project No. P088752, Emissions Reduction Purchase Agreement signed June 30, 2005.

<sup>8</sup> Project No. P086455, ERPA pending.

ERPA discussions; c) maximize the use of tools already developed under the CDM to avoid the additional and complex process of registration of new methodologies. Project has incorporated these lessons into its design.

## **9. Safeguard Policies (including public consultation)**

The project is expected to trigger Environmental Assessment (OP/BP 4.01), and Forests (OP/BP 4.36) Operational Policies. The forestry policy is triggered by projects with the potential to impact the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or aim to bring about changes in the management, protection or utilization of natural forests or plantations. The proposed project will implement a forest management program, reforesting an area of about 2,500 ha. In addition to the forest management program, the project will support the reintroduction and strengthening of native vulnerable and endangered populations of arboreal species. The project will also bring about changes in the current management practices of forests.

Natural Habitats (OP/BP 4.04) is triggered by the intention to restore soil cover with arboreal species under endangered and critical status. The recovery of germ-plasm, seed collection and generation of nursery stock required careful management to prevent any further impacts on the remaining populations of the target species. No use of biocides is considered under the project.

The project can only be developed with the active participation of the farmers from San Nicolas. The project scope is the direct result of years of interaction with and participation of the local community. The forestry plan was drafted in the course of a well designed and executed consultation process, during the last 20 months, with the communities in the area of the project. The communities are represented in the institutional arrangements for implementation of the project. **MASBOSQUES** itself is the result of a participatory process that includes several institutions, municipalities and local organizations. The project was developed by CORNARE, which enjoys a very good reputation in the region. The project is expected to improve the income of small landowners, through the sale of non timber and agro-forestry products, directly contributing to income improvements and quality of life of the involved community. MASBOSQUES through the assistance of UNALMED has undertaken a socio-economic characterization of the local farming community, identifying the following types of landholders:

- Agricultural worker: temporal worker without land.
- Employee: permanent worker without land.
- Low income farmer or peasant: peasant with land that in addition works as a temporal agricultural worker. No more than 3 ha.
- Medium income farmer or peasant: peasant with land that can work only with his family in his land. More than 8 ha. High income farmer or peasant: peasant with land that can hire additional workers to work in his land. More than 8 ha.
- Rural Businessman: landowner that has land, employees and also other business.

**Land tenure and Project Participants.** The project will be implemented by low and medium income farmers. The individual land owners have empowered MASBOSQUES with valid and binding arrangements that entitle MASBOSQUES to the carbon sink income and commit

individual participants to the reforestation schemes. Individual agreements will be in place prior to implementation of project activities on the respective parcels. Under the agreements the landholders commit to the maintenance of the reforested systems.

The process of selection of participants was open and transparent. The criteria employed were: a) technical (compliance of the participant's land with the definition of forest area by the Ministry; participant's land identified as of forest aptitude, as per land zoning by CORNARE; participant's land that met the conditions of lack of soil cover by 1990 as per Landsat images); and b) legal: clear title with no encumbrances; "libertad y tradicion" certificate from the office of land records and willingness to participate through the signing of the participation agreement.

**Community participation.** CORNARE and MASBOSQUES have conducted an extensive community consultation process in the context of the development of the Management Plan for the San Nicolas valley and consequently of the formulation of the carbon sink project. The community consultation has taken 21 months from the start of the process. The community participated in the original forest inventory and in capacity building workshops. The process of selection of participants led to further community participation. MASBOSQUES is an association made up by the local community with the support of CORNARE.

### **Direct Social Benefits**

The project will benefit around 21,000 families; and is expected to generate around 9,000 jobs in reforestation activities and around 3,000 jobs in agroforestry activities. The benefits are:

- Improved income
- Higher valuation of lands
- Consolidation of institutional links
- Promotion of the communities capacity for management and negotiation
- Formulation of a territorial planning process in a participatory manner
- Training in forest-management activities
- Creation of direct and indirect employment
- New products for the local market
- Reduction of pressure on natural forests as wood sources.
- The establishment of agroforestry and *silvopastoril* systems will improve the food safety inside the region.

The project is not expected to result in negative environmental impacts. Expected environmental benefits include: global emission reductions, development of tools and methodologies for the development of carbon sink projects in the country, restoration of ecosystem integrity, re-introduction of species under critical status and reduction of extinction, sustainable forest management, strengthened biodiversity protection and maintenance of environmental services (water and carbon retention in soils) in the project area. All reforestation activities will be undertaken under a careful planting protocol to be developed prior to appraisal, to reduce any negative impact on soil compaction, existing natural stands or soiling of surface waters. The protocol will be supervised by MASBOSQUES (see Annex 16).

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### **Safeguard Policies Triggered by the Project**

Yes

No

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<a href="#">Environmental Assessment (OP/BP/GP 4.01)</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats ( <a href="#">OP/BP 4.04</a> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pest Management ( <a href="#">OP 4.09</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Property ( <a href="#">OPN 11.03</a> , being revised as OP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involuntary Resettlement ( <a href="#">OP/BP 4.12</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indigenous Peoples ( <a href="#">OD 4.20</a> , being revised as OP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests ( <a href="#">OP/BP 4.36</a> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety of Dams ( <a href="#">OP/BP 4.37</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas ( <a href="#">OP/BP/GP 7.60</a> )*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways ( <a href="#">OP/BP/GP 7.50</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 10. List of Factual Technical Documents

### 11. Contact point

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\* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*