

**Inter-American Development Bank
Technical Cooperation Program (Trust Funds)
T/C BRIEF**

I. GENERAL INFORMATION

Project name:	Forest Vocation Land Policy Implementation in Paraguay
Project number:	PR-T1056
Project team	Team Leader: Jose Rente Nascimento (INE/RND), Members: Pedro Martel (CSC/CPR); Teresa Maurea Faria (LEG/SGO); and Elizabeth Chavez (INE/RND)
Name of the Fund:	Norwegian Consulting Services Trust Fund (NCS)
Beneficiary Country:	Paraguay
Executing/contracting Agency:	IDB
Amount to be financed by Trust Fund:	US\$146,000
Execution and disbursement deadlines	10 months of execution and 12 for disbursement after TC Brief approval

II. BACKGROUND

- 2.1 Sustainable rural development is a major concern for the Bank and is the principal objective of many of its operations. Forest Vocation Lands dominate a good portion of the LAC rural landscape and, instead of being a major source of prosperity in those areas; they have been often subject to destruction or misuse with grave economic, social and environmental consequences.
- 2.2 Forest Vocation Lands (FVL)¹ are those that, due to their physical site features such as soil, topography, and the rainfall it receives, should be kept under forest cover or other sustainable land use if soil or water related negative externalities are to be avoided. FVL classification does not depend on the type of cover the land actually has, nor does it depend on the requirements it may have for agriculture crop or forest production. Therefore, lands with no forest cover or use can still be classified as FVL if their physical features so indicate; while lands covered with forest may not be FVL.
- 2.3 The basic requirement for the proper use of FVL is that they should be covered by forests or be used in such a way as not to generate soil erosion and water conservation related negative externalities for society. When this requirement becomes law as they are in many

¹ Reference: Nascimento, José Rente (2005). Forest Vocation Lands and Forest Policy: When Simpler is Better. RUR-05-03. Washington, D.C.: Inter-American Development Bank. Available in the Internet at http://www.iadb.org/sds/ENV/publication/publication_210_4298_e.htm

LAC countries, landowners have their land use options for FVL limited to those that will not generate such externalities. By only being allowed to use FVL with uses that effectively conserve soil and water, landowners are actually internalizing these externalities in their decision making and complying with the Polluter Pay Principle whenever investments in protective measures are required.

- 2.4 Most LAC country uses, on a smaller or greater degree, the concept of FVL in their forest legislations. However, the actual application of such provisions have been limited by a lack of a comprehensive understanding of this strategy and of operational and pragmatic instruments for their effective implementation. Results from a recent case study in Panama the development of the methodologies to identify FVL, establish a base line of their cover, and identify critical areas of high-risk soil and water related negative where FVL have no forest cover. The present operation builds upon the Panama case and adapts the methodologies to Paraguay's natural, legal and institutional conditions. It will also provide tools for the design of projects or components that seek to implement such policies.

III. OBJECTIVES

- 3.1 The objectives of the operation are to develop operational instruments for the implementation of the forest policy based on a forest vocation land (FVL) strategy in a pilot area and prepare a project to apply them to eastern Paraguay. The TC will assist the GOPR to improve forest related environmental services production such as soil and water protection, and increase the competitiveness of forest-based businesses in the country. It, thereby, benefits landowner production and productivity, create associated business opportunities, improve the environment and reduce rural poverty. The operation finances the adaptation of instruments related to the identification of FVL in selected regions of eastern Paraguay at an operational scale; the identification of conflicting forest and non forest policies to assure consistency; the adjustment of regulations to implement FVL provisions of the law; the establishment of pragmatic FVL cover change monitoring mechanisms and procedures; the reengineering and demonstration of enforcement activities; the dissemination of policy rules; the identification of an assistance strategy for policy compliance by landowners, and the comparative analysis of the current policy framework as compared with the based on the forest vocation land concept using economic, financial, fiscal cost/benefit criteria and economic activity impacts. The operation will also generate a land capability classification for commercial plantation forest production for the entire country. The tools development and implementation demonstration for selected parts of oriental Paraguay will allow their application to other areas of the country based on a investment project that will also prepared under this TC.
- 3.2 The long-term objectives are to contribute to improve welfare in rural areas through more sustainable use of FVL to reduce negative forest externalities related to soil and water and increase the competitiveness of forest use in such lands.
- 3.2 The purposes for which the financing is requested are to commission a series of background research papers, develop technical, institutional and legal reform proposals, implement a pilot for selected area of Paraguay, prepare a proposal to extend the application of the methodology to the entire country, and disseminate results to a broader audience through a website.

IV. DESCRIPTION

- 4.1 Activities include: the one-time identification of FVL in selected Paraguayan municipalities; the development of procedures for periodic monitoring of FVL cover; the analyses comparing the current forest policy and the TVF's in economic, financial, and fiscal terms; the reengineering of enforcement procedures and protocols; the design of rules' dissemination activities and an assistance strategy to support policy compliance; and the preparation a project proposal to implement the policy to the entire country. Disseminate operational instruments developed and pilot results through an Internet site.
- 4.2 **Consulting Services required.** The TC will finance the hiring of a consulting firm that has to count with the following professionals: **forest planner or economist** (to coordinate the team); **agriculture economist** with experience in economic and financial analysis of agriculture and forest projects as well as fiscal analysis; **natural resources remote sensing specialist** with experience in forest cover and land use monitoring and GIS applications; **soil and topography mapping specialist** with experience in remote sensing and GIS applications; **land capability specialist** with experience in the commercial tree species requirements such as *Eucalyptus spp.*, *Pinus spp.* and teak, **lawyer** with experience in forest and land use legislation; **institutional development specialist** capable of designing organizational, and procedural protocols review and adjustments; and a professional **website designer**.
- 4.3 **Outputs expected:** The principal outputs of the operation are studies, methodologies, operational guidelines and protocols, regulation drafts, trained personal, project proposal to extend the application to the rest of the country, and a website to disseminate the results. The products are: forest vocation land identified and land cover baseline mapped for two selected regions for a total of no less than 300,000 ha; FVL cover change monitoring system designed and operational procedures established; FVL related regulations reviewed and adjustments proposed including conflicting forest and non-forest policies identified and modifications proposed to assure consistency and effectiveness; FVL policy enforcement procedures reengineered and organizational adjustments proposed; analysis comparing current and adjusted policies in terms of economic, financial, and fiscal benefit cost, and economic activity impact; policy rules and other supporting information disseminated, including landowners' compliance assistance strategy designed. Commercial forest plantation land capability classification for the country at 1:100:000 scale or more detailed. Limited training will be provided to government officials and sector professionals. An investment project to extend the application of the policy to the reminder of the Paraguay will also be prepared. Terms of Reference, guidelines, protocols, and other tools and parameters for project design; execution and evaluation will also be produced and disseminated through the Internet.
- 4.4 The operation would require an estimated 20 person/month of short-term consultants over a total of 10 months of execution.
- 4.5 This TC responds to a request by the GOPR and will be executed by the Bank. In accordance to T/C Funds norms, INE/RND will select, hire the consulting firm required, and undertake the disbursements of the resources. The government of Paraguay, through the *Mesa Forestal* of the Investment and Export Network (REDIEX from its Spanish

name), will participate in the validation of the methodology and the drafting of the legislation required.

V. JUSTIFICATION

- 5.1 Government costs for the implementation of a FVL based policy are relatively small. There are two basic types of costs involved: FVL identification costs and enforcement costs. There is an initial one-time cost to identify only the forest vocation lands located outside officially created protected areas² and others³. The first task in identifying FVL in the field would be to map the landscapes with slopes greater than 30% and those between 8% and 30%. Slope gradient can be identified through remote sensing at relatively low cost. Areas with slopes between 8% and 30% can be matched with soil erodibility maps to identify those that are at greater risk for soil erosion. If rainfall varies substantially within the study area, this factor can be added to help to identify the FVL in this second set. Otherwise, a simple rule of thumb may be devised to limit the decision to soil erodibility and slope gradient. The general methods to undertake these tasks are well known, since they are a subset of methods used in other soil classifications, and they have been already successfully applied in the case of Panama.
- 5.2 FVL-based policy enforcement costs are also substantially smaller than traditional forest law enforcement that requires the control of the entire custody chain. There are many ways to enforce the requirement of forest cover on FVL. Law enforcement costs are expected to be smaller because the lack of forest cover resulting from the misuse of FVL is relatively simple to detect by remote sensors and on the ground. Law enforcers can be easily directed by remote screening to FVL without forest cover by the georeferential address to verify whether current use generates soil erosion and water conservation related negative externalities. Therefore, enforcers need to be concerned only with FVL without a forest cover, not having to expend resources with non-FVL, regardless of their use or cover.
- 5.3 As in several other LAC countries, the forest legislation of Paraguay applies the concept of forest vocation land (locally called protective forest lands) as one of its basic strategies. The law establishes that FVL are important for soil erosion and watershed protection, and should be used sustainably. The application of such a directive would improve land use in the country, increase forest use feasibility and landowners' income, increase the production of forest based externalities (soil and water conservation, carbon sequestration and stock maintenance, and biodiversity), and reduce negative externalities associated with the misuse of the landscape. However, this legal directive has not been fully implemented in the country, among other problems, because it does not count with an operational normative framework. Neither landowners nor forest authorities know where the FVL are or understand the full implications of the strategy. This confusion has led to uncertainty and misapplication of enforcement activities.

² Protected areas are under a separate regimen of use and do not need to be identified because they are assumed to be already avoiding soil and water conservation problems.

³ Such as water bodies (rivers, lakes), urban areas, dry or desert regions, etc.

- 5.4 Paraguay's forest legislation also requires landowners of properties 20 ha or greater and in forest regions to keep 25% of property under natural forest cover. When the property already does not have enough natural forest cover, the landowner must reforest 5% of the area holding. This well-meaning legislation has been ineffective and generates distortions in land use and cover choices by the landowner that is neither privately sound nor publicly desirable. Combined with an effective biodiversity protection system, a forest vocation land based policy can help to redirect such norms to achieve a more sustainable solution that benefit society and make sense to the landowner. The operation will also classify land resources with regards to their capabilities to sustain commercial forest plantations of species of *Eucalyptus spp.*, *Pinus spp.*, and teak. This information is critical to allow landowners to select the best forest species to plant in their properties to supply wood markets and improve land use.
- 5.5 The operation will allow the GOCR to improve the environmental sustainability and the governance of rural lands and uses. It will clarify the socially desirable covers of lands to increase the private and social benefits and business competitiveness from their use. The project intends to benefit landowner production and productivity, create associated business opportunities, improve the environment and reduce rural poverty. In special, smallholders will benefit from increased income resulting from the better use their limited land resources in a more efficient and environmentally sound manner, as well as from taking advantage of forest and agriculture commercial opportunities. Workers will also benefit from increased job opportunities both in forest and agriculture operations that are expected to arise from the more efficient land use as well as forward and backward commercial linkages.
- 5.6 This operation will develop operational instruments that will be useful for the design and implementation of forest projects in LAC that include the full application of FVL based policies. The TC will also provide partial input for the implementation of loans in execution (p.e., 1800/OC-PR- Modernization of Agricultural Support Management) as well as for the preparation of forest components or projects in accordance with the priorities of Action Plan of PROMECIF-PR⁴.
- 5.7 This operation will assist the GOCR to develop the norms, procedures and institutional mechanisms and apply them on pilot scale in two selected areas of the Oriental Region for a total of no less than 300,000 hectares so that it can evaluate and select the best alternatives for the full implementation of this aspect of the law. It will also classify the country's lands according to their capability for commercial forest plantation at 1:100:000 scale or more detailed. The results of the pilot operation will facilitate the application of the strategy to other parts of the country and serve as example for other LAC countries in the application of similar policies. The operation will allow the GOCR and other governments in the region to design, execute and monitor projects to implement their FVL policies.

⁴ The application of the process to improve the business climate for forest-based investments in Paraguay (PROMECIF-PR) is a product of the TC RG-T1172-Implementation of the Forest Investment Attractiveness Index. IDB and GOCR have signed a Commitment Letter to facilitate the collaboration in the implementation of the process.

VI. ENVIRONMENTAL AND SOCIAL ASPECTS

- 6.1 The TC will have no substantial negative environmental or social impacts. The operation will create and demonstrate the application of tools, regulations and institutional arrangements that facilitate the sustainable use or cover of forest vocation lands reducing soil erosion and water related negative externalities. The proper use of the land will also help landowner increase production and productivity, and create additional associated business opportunities; thereby reducing rural based poverty and improving the environment. Therefore, this operation is proposed to be classified as category “C”.

VII. BUDGET

US\$1.00

Description	IDB (NCS Trust Fund)
Honorariums:	124,000
- Forest Econ. Coordinator (5 months x 7,000)	35,000
- Natural resources monitoring specialist (3 months x 6,000)	18,000
- Agriculture economist (3 months x 6,000)	18,000
- Soil mapping specialist (2 months x 6,000)	12,000
- Land capability specialist (2 months x 6,000)	12,000
- Lawyer (2 months x 6,000)	12,000
- Institutional development expert (2 months x 6,000)	12,000
- Website design (2 months x 2,500)	5,000
Per Die	5,120
- 40 days in Paraguay (average 100)	4,000
- 4 days in Washington, D.C. (280)	1,120
Travel expenses	8,400
- Paraguay*	6,000
- Washington, D.C.	2,400
Workshops, supports, contingency, promotion activities	8,480
TOTAL	146,000

* Includes local and international trips

VIII. RESPONSIBILITY IN THE BANK

- 8.1 **Technical Responsibility:** Mr. José Rente Nascimento from the Environment, Rural Development, Disaster Risk Management Division - Infrastructure and Environment Sector (INE/RND), tel. (202) 623-3752, Fax (202) 312-4025, email renten@iadb.org, is the Bank officer assigned to the operation and has technical responsibility.
- 8.2 **Responsibility for Disbursements:** CSC/CPR is responsible for disbursements.

IX. RECOMMENDATION

- 9.1 José Rente Nascimento, designated team leader for the project of the reference, recommends the approval of this operation and the use of resources from the Norwegian Trust Fund for Consulting Services (NCS) totaling up to US\$146,000 in order to finance the corresponding project.

X. CERTIFICATION

- 10.1 I hereby certify that this operation was approved for financing under the Norwegian Trust Fund for Consulting Services (NCS) through a letter dated February 4, 2008 on Oslo, Norway and signed by Tore Selvig, Senior Adviser of the Norwegian Agency for Development Cooperation. Also, I certify that resources from the Norwegian Trust Fund for Consulting Services (NCS) are available for up to US\$146,000 (one hundred forty six thousand dollars) in order to finance the activities described and budgeted in this document. This certification reserves resources for the referenced project for a period of twelve (12) calendar months counted from the date of signature below. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this Plan of Operations. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, for which the Fund is not at risk.

ORIGINAL SIGNED

2/19/08

Marguerite S. Berger
Chief, VPC/GCM

Date

XI. APPROVAL

ORIGINAL FIRMADO

3/10/08

Hector Malarin
Chief, INE/RND

Date