

TECHNICAL COOPERATION PROFILE

FEDERATIVE REPUBLIC OF BRAZIL

I. GENERAL INFORMATION

- **Program Name and Number:** Forest Vocation Land Policy Implementation in Brazil. BR-T1068
- **Team Leader/Members:** Jose Rente Nascimento (INE/RND), team leader; Trond Norheim (INE/RND); Juan Poveda (CSC/CBR); Teresa Maurea Faria (LEG/SGO); and Elizabeth Chávez (INE/RND)
- **Name of Trust Fund:** Spanish Framework-General Cooperation Fund (FGE)
- **Final Beneficiary:** Brazil
- **Contracting Entity:** Inter-American Development Bank (IDB)
- **Technical Responsibility:** Mr. José Rente Nascimento - Environment, Rural Development and Disaster Risk Management Division (INE/RND).
- **Financing plan:**

IDB - FGE:	EUR€290,000	US\$411,467
Local:	<u>EUR€ 60,000</u>	<u>US\$ 85,131</u>
Total:	EUR€350,000	US\$496,598
- **Execution and disbursement deadlines:** 12 months 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 Latin American Countries (LAC) rural landscape and, instead of being a major source of prosperity and competitiveness 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 they receive, should be kept under forest cover or other sustainable land use if soil or water related negative externalities

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

are to be avoided. FVL classification does not depend on the type of cover the land actually has, nor does it depend on how they attend to the requirements of agriculture crops 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 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. When such lands are clearly identified and the policy implemented, this arrangement helps to reduce economic, social and political conflicts among stakeholders, thereby contributing to consolidate a more sustainable and competitive use of land resources.
- 2.4 Most LAC country use, on a smaller or greater degree, the concept of FVL in their forest legislations. However, the actual enforcement 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. IDB has supported important advances for such understanding through a recent case study in Panama² which developed methodologies to identify FVL, to establish a base line of their cover, and to 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 the natural, legal and institutional conditions found in the Brazilian states of Mato Grosso (MT), Minas Gerais (MG) and Parana (PR). It will also provide tools for the design of projects or components that seek to implement such policies.

III. PROGRAM OBJECTIVE

- 3.1 The objectives of the operation are to develop operational instruments for the implementation of the forest policy based on a (FVL) strategy in pilot areas and prepare projects to apply them to the rest of the respective Brazilian states territories. The Technical Cooperation (TC) will assist the beneficiary governments to improve forest related environmental services production such as soil and water protection, and increase the competitiveness of land-based businesses in their territories. The operation finances the adaptation of instruments related to the identification of FVL in selected regions 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

² RS-T1276 (ATN/AU-10038-RS). Instruments For Implementing Forest Vocation Land Policy

mechanisms and procedures; the reengineering and demonstration of enforcement activities; the dissemination of policy rules; 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 technical, and economic, financial, fiscal cost/benefit criteria, and economic activity impacts. The tools development and implementation demonstration for selected parts of each state will allow their application to remainder of their territories and help other states in evaluating the applicability and convenience of such policies to their own territories.

- 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 to increase the competitiveness of land uses.
- 3.3 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 areas of the Brazilian states, prepare a proposal to extend the application of the methodology to the remainder of their respective territories, and disseminate results to a broader audience through websites.

IV. DESCRIPTION

- 4.1 **Activities include:** The one-time identification of FVL in selected municipalities; the development of procedures for periodic monitoring of FVL cover; the analyses comparing the current forest policy and the FVL's in technical, 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 their respective territories. Disseminate operational instruments developed and pilot results through an Internet sites.
- 4.2 **Consulting Services required.** The TC will finance the hiring of a Spanish consulting firm that have 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 Geographic Information System (GIS) applications; **soil and topography mapping** specialist with experience in remote sensing and GIS applications; 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 for each beneficiary are studies, methodologies, operational guidelines and protocols, regulation drafts, trained personal, project proposal to extend the application to the rest of the

territories of MT, MG, and PR, and websites to disseminate the results. The products are: forest vocation land identified and land cover baseline mapped for 150-200,000 ha for each state; FVL cover change monitoring system designed and/or adjusted, 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 technically and 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. Limited training will be provided to government officials and sector professionals. 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 32 person/month of short-term consultants over a total of 12 months of execution.
- 4.5 This TC responds to a request from the Brazilian Government (GOBR) and from the state governments of Mato Grosso, Minas Gerais, and Parana and will be executed by the Bank. In accordance to T/C Funds norms, INE/RND will select, hire the Spanish consulting firm required, and undertake the disbursements of the resources. The beneficiary governments will participate in the validation of the methodology and the drafting of the legislation that might be required.

V. JUSTIFICATION

- 5.1 The Mato Grosso, Minas Gerais, and Parana states are three of **Brazil's** most important agriculture and forest producers. Land use and cover policies that assure those states' best welfare results have been constantly debated for decades and several legal and institutional arrangements have been attempted to address the corresponding governance issues with mixed results. The pilot implementation of IDB developed Forest Vocation Land based forest policy framework can bring environmental and economic rationality to these debates and demonstrate its applicability, cost effectiveness, and welfare and competitiveness improvement contributions as compared to the current governance framework.
- 5.2 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 areas³ and others⁴. 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

³ 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.

⁴ Such as water bodies (rivers, lakes), urban areas, dry or desert regions, etc.

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.

- 5.3 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.
- 5.4 The operation will allow the improvement of the environmental sustainability and the governance of rural lands and uses. It will also clarify the social-economically desirable covers of lands to increase the private and social benefits and business competitiveness from their use.
- 5.5 The results of the pilots 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 governments in the region to design, execute and monitor projects to implement their FVL policies.
- 5.6 The participating states are three of Brazil's most important agriculture and forest producers but their rural based prosperity has been accompanied with an intense debate and conflict, sometimes violently, over the best way to assure the contribution of the land use and cover to their rural population welfare and states' competitiveness and economic growth. This continuous debate among rural producers, state and federal governments, and local and international environmental stakeholders has lasted for several decades and different legal and institutional arrangements have been attempted to address the corresponding governance issues with mixed results. The pilot implementation of IDB developed FVL based forest policy framework can bring environmental as well as economic rationality that has been mostly lacking so far to these debates. It is expected that the pilot areas and the technical, economic, financial and fiscal analyses to be undertaken will provide much needed understanding of the critical issues and demonstrate its applicability, cost effectiveness, and welfare and competitiveness improvement contributions as compared to the current governance framework.

- 5.7 This operation will assist these states to proof the FVL policy framework by adapting and applying operational instruments that will demonstrate its usefulness and be used for the design of projects to extend it to other parts of the states. Current provisions of the Brazilian forest legislation apply similar concepts to forest vocation land as one of its basic strategies. The law establishes that FVL identified by their soil, climate and topographic features, should be used for forest ends. The same law also requires that individual land properties set aside from 20% to 80% of their areas as legal reserves depending on the geographic region. 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. Therefore, these provisions of the law have proven adverse to the landowners, very difficult to enforce, and their economic and environmental impact and rationality are questionable. Each state has developed its own strategies to comply with federal requirements and address local concerns and geographic peculiarities.
- 5.8 On the other hand, the FVL policy framework is a much more precise approach that improves land use; increases forest use feasibility and landowners' income; increase the production of forest-based externalities (soil and water conservation, and carbon sequestration and stock maintenance), reduces negative externalities associated with the misuse of the landscape; and allows the government to identify critical areas of FVL with no sustainable cover and to enforce social-economically desirable land cover much more effectively. 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.
- 5.9 This operation will assist the governments of those important states to pilot the implementations of FVL policy framework so that they can demonstrate its usefulness and prepare full implementation projects for the rest of their territories. The results of the pilot proofs will serve as motivation for other states and the Federal government in the adjustment of the legal framework, and facilitate the application of the policy nationwide.

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 was classified as category "C".

VII. BUDGET

Description	MT, MG, and PR*	IDB/FGE	
		EUR€	US\$
Honorariums:		228,200	323,782
- Forest Econ. Coordinator (8 months x 8,400)		67,200	95,347
- Natural resources monitoring specialist (5 months x 7,000)		35,000	49,660
- Agriculture economist (6 months x 7,000)		42,000	59,592
- Soil mapping specialist (4 months x 7,000)		28,000	39,728
- Lawyer (4 months x 7,000)		28,000	39,728
- Institutional development expert (3 months x 7,000)		21,000	29,796
- Website design (2 months x 3,500)		7,000	9,932
Per Diem		17,200	24,404
- 120 days in Brazil (average 120)		15,600	2,270
- 8 days in Washington, D.C. (280)		1,600	22,134
Travel expenses		29,650	42,069
- International, (15 x 750)		11,250	15,962
- Brazil (inside, 120 x 120)		14,400	20,461
- Washington, D.C. (4 x 1000)		4,000	5,675
Counterpart contribution	EUR€ 60,000		
- Office space and equipment	15,000		
- Local transport	15,000		
- Personnel,	30,000		
Workshops, supports, promotion activities		14,950	21,212
TOTAL	60,000	290,000	411,467

VIII. MAJOR ISSUES

- 8.1 There are no special issues for analysis beyond those already mentioned and treated in this Brief. There is a clear demand for the operation as expressed by the request letters of the three States. The full participation in the monitoring of the execution and evaluation of the products by the states' environmental agencies also provides assurances of the ownership of the expected results and the likelihood that they will be effectively used. IDB's responsibility for the execution simplifies the design of the operation.

IX. ACTION PLAN

- 9.1 The steps that are to be taken to process the program include the conclusion of the preparation of the terms of reference and the corresponding plan of operations, both of which are in advanced stage of preparation. No missions or consulting services will be necessary to complete the pending tasks. The conclusion of the preparation process is expected for mid-December 2007.

X. RESPONSIBILITY IN THE BANK

- 10.1 **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. INE/RND is responsible for disbursements.

XI. RECOMMENDATION

- 11.1 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 Spanish Framework-General Cooperation Fund totaling up to EUR€290,000 (US\$411,467) in order to finance the corresponding project.

XII. APPROVAL

(Original signed)
Concur: _____
Héctor Malarín
Chief, INE/RND

11/16/07
Date: _____

(Original Signed)

Roberto Vellutini
Manager, INE/INE

11/10/07
Date: _____

(Original signed)

Manuel Rapoport
General Manager, CSC/C

11/26/07
Date: _____