

## REGULATORY FRAMEWORK FOR PRIVATE INVESTMENT IN THE IRRIGATION SECTOR

(TC-97-09-083)

### EXECUTIVE SUMMARY

**EXECUTING AGENCY:** Banco do Nordeste do Brasil (BNB).

**RECIPIENTS:** Secretariat of Water Resources, Ministry of the Environment, Water Resources, and the Legal Amazon.

**OBJECTIVES:** The general objective of the project is to develop a regulatory framework, as well as an "investment model" that will allow private sector investment to expand in the irrigation sector in the Northeastern Region, particularly in the San Francisco River Valley.

**FINANCING:**

Modality:	Grant (Facility I)
Recipients:	US\$1,400,000
MIF:	<u>US\$1,400,000</u>
Total:	US\$2,800,000

**IMPLEMENTATION SCHEDULE:** Program execution will take 24 months, with a disbursement period of 30 months.

**SPECIAL CONTRACTUAL CLAUSES:** The amount of the revolving fund will be 10% of the MIF contribution.

**PROCUREMENT OF GOODS AND SERVICES:** Procurement of goods and the awarding of contracts for services to be financed with MIF resources will be carried out in accordance with the Bank's procedures.

**EXCEPTIONS TO BANK POLICIES:** None.

## **COUNTRY ELIGIBILITY MEMORANDUM**

### **BRAZIL**

#### **I. COUNTRY ELIGIBILITY**

- 1.1 The Donors Committee declared the Republic of Brazil eligible for all financing modalities from the Multilateral Investment Fund (MIF) in its meeting of February 9, 1995.

#### **II. FRAME OF REFERENCE**

##### **A. Background**

- 2.1 Brazil, the largest country in South America and the fifth largest in the world, has around 620 million hectares of potential agricultural land, of which about 44% (375 million hectares) is used for current farm production (crops, pastures or planted trees). With such a vast land extension, it is not surprising that the agricultural sector has traditionally played a key role in the economy, providing food, raw materials, employment and export earnings for its 163 million inhabitants. The agribusiness cycle accounts for more than 35% of GDP (12% if only the primary goods are included) and for 37% of exports, and employs about one-quarter of the labor force. At the regional level, the Northeast Region generates close to 16% of Brazil's GDP and over 12% of its agricultural GDP. This region also contributed to around 12.5% (US\$3.8 billion) of the country's total exports in 1996.
- 2.2 Around 20% (140 million hectares) of the potential agricultural land and close to 25% of the farm area (92 million hectares) are located in the Northeast region. In this region, 29 million hectares have the potential of being irrigated and around 20 million are covered with wetlands. With close to 60% of the Brazilian rural poor living in the Northeast, the support for sustainable and equitable agricultural growth and development of that region constitutes a high priority for both national and regional policymakers. In this context, intensification of the patterns of land use with sound natural resource management practices that result in higher yields and incomes for the region's producers, will create jobs up and downstream, and reduce the migratory flows to the cities which is a national and regional development strategy priority. Increased private sector participation in the financing and management and operation of irrigation systems that promotes more efficient land use is an important component of that strategy.

##### **B. The irrigation sector in Brazil and in the Northeast**

- 2.3 Of the country's 55 million hectares cultivated with crops, less than 3 million hectares (5%) are currently irrigated. The expansion in the use of irrigation grew relatively slowly, as agricultural

growth was led more by an expansion in the agricultural frontier than by technological change. More recently, as concerns for the preservation and conservation of natural resources have been raised, better technological practices, including a more efficient and sustainable use of water and land resources has taken on new significance.

- 2.4 In spite of its small share of total cropland, irrigated agriculture contributes about 16% and 25% of the sector's volume and gross value of production, due to its high value-added. As in the case of horti-fruticulture, it also requires a smaller investment per unit of employment generated than other occupational activities, which emphasizes its economic as well as social attractiveness for the sector. Furthermore, irrigated crops generate more direct and indirect employment per hectare in the agricultural sector, as it is observed in the cases of onion, grapes, tomato, melon and mango.
- 2.5 In terms of income per hectare, irrigated fruit production is also the most profitable crop production activity in the Northeast, underlying the importance of irrigation for the development of the sector in that region. The highest annual income per hectare in the region is generated by grape production (US\$34,000) and mango (US\$10,000), followed by more traditional crops such as green coconut (US\$8,000) and banana (US\$7,500). Such indicators compare very favorably with non-irrigated agriculture crops, such as beans (US\$7,000), soybeans (US\$5,000) and cotton (US\$3,500).

#### C. Government policy to date in the irrigation sector

- 2.6 The semi-arid region of Brazil has a population of 26.6 million people, of which more than 40% live in the rural areas. With a dry climate and averages of no more than 600mm of unevenly distributed rainfall a year, the region is considered a grave risk for agriculture without irrigation. The potential area for irrigation in the region is estimated in 5 million hectares, with one million hectares located in the San Francisco Valley alone. As of now, only 600,000 hectares are under irrigation, mainly in the San Francisco Valley.
- 2.7 Approximately 100,000 hectares of this irrigated land were implemented as public projects under a social intervention investment model. According to this model, the government provided low-income farmers with land plots for cultivation based on social criteria, rather than technical, financial and economic considerations. The model was useful in amassing the impetus for conquering the vast space, proving the viability of irrigation technology, as well as establishing several new development centers. However, its underlying assumption regarding the validity of social criteria was disproved as the only sustainable centers turned out to be those sold to experienced entrepreneurs. Projects were very slow in their execution and many were never completed,

all resulting in a inefficient use of public resources. The old model also allowed the prevalence of a more subsistence agriculture rather than a market oriented one, which aggravated instead of helping the rural poverty problem of the region.

- 2.8 Moreover, in several irrigation projects under operation, water usage fees have shown to be too low to cover the operation and maintenance costs, much less to provide for investment recovery. Water is wasted and users organizations are lacking the administrative, technical and financial skills to make them economically viable operations. The low educational level among farmers creates a general resistance to technological innovation, affecting profitability. This is aggravated by the lack of marketing skills for their products among farmer organizations and cooperatives. The increasing presence of real entrepreneurs in the region has started to change that spectrum, as a more business and market oriented vision is taking place, demanding the adjustment of the development model into something that better responds to the interests and market opportunities pursued by those entrepreneurs.
- 2.9 The existing irrigation law, has in its regulations, norms that have greatly contributed to the economic, technical and operational failure of the public irrigation projects. In this context, the social priority given to the projects brought actions isolated from national policies oriented to support the agricultural sector, and in several cases the existing policies undermined the actions being taken at the project level. Also, since they were federal projects, in several cases the municipalities and states were not consulted or involved as partners. Private sector participation was never considered at the legal or at the operational instances. It is therefore, imperative to develop a new model that will revise and adjust both the legal and the operational framework for the irrigation sector.

#### **D. Defining the new conceptual framework**

- 2.10 The Brazilian Federal Government, in redefining its role in the country's economic growth and development, is eliminating its direct intervention in the production of goods and services, replacing it with its new role as promoter and regulator of that process. Within this new perspective, the Federal Government is supporting the decentralization of its executive functions towards the state and municipal levels, particularly in the area of provision of social services.
- 2.11 With respect to the irrigation sector, where the public sector intervention has traditionally been substantial, a move towards deregulation and promotion of private sector participation in its financing and management is expected. The so-called "*New Irrigation Model*," one of the 42 projects that form the "*Brazil in Action Program*," represents a new conceptual framework for the new modus operandi in the irrigation sector. This new conceptual model,

which this MIF operation aims to develop further, will try to attract private sector capital in the financing and operating of new and priority irrigation projects that contribute to improvements in agricultural productivity; sustainable management of natural resources; farm income and employment generation; market orientation; and overall gains in the sector's competitiveness. It also aims to involve the state governments in the promotion and planning of the development of irrigated agriculture in the country.

- 2.12 The model looks for the development of integrated agroindustrial productive and commercial chains with irrigation investments based on technical, environmental, financial and economic criteria. This proposed new investment approach would develop strategies for: (i) incorporation of the private sector in financing irrigation investments; (ii) resources for financing the "public goods" associated with a selected pilot irrigation project; and (iii) institutional development. Also needed are significant changes in the country's regulatory and institutional framework for the irrigation sector to spell out clear rules that will increase participation of the state and local governments and private investors in a more economically and competitive viable context.
- 2.13 The proven profitability and manageable risks faced by private entrepreneurs that have invested in irrigated agriculture, particularly in the fruit and vegetable subsector, have demonstrated that the private sector, both at the national and international levels, are willing to play a bigger role in the financing, managing and operating of new irrigation systems. In the new model it is expected that private investors will assume most of the commercial and financial risks for specific projects. The state's role on the other hand would be limited to guarantee property and leasing rights, establish the institutional framework, provide technical and legal assistance, undertake environmental monitoring, auditing and enforcement through the appropriate environmental agencies, and develop strategies for reducing political risks, thus allowing investors to tap existing financial mechanisms without privileges or government intervention.

#### **E. Bank activities**

- 2.14 Currently the Bank has in its pipeline an investment project for the sector called "New Irrigation Model" (BR-0266). The goal of this project is to support the federal government in implementing the new approach to irrigation development in the San Francisco Valley and other areas of the Northeast that will be developed by the proposed MIF operation. Depending on the results of the proposed MIF operation, in terms of successfully securing private capital to finance irrigation investments under the new model, the Bank would have to study how it can further contribute to the implementation of said model under BR-0266. A possibility could be

the financing of the final engineering designs of the pilot project to be developed (see para. 2.15 and 3.6).

- 2.15 One of the specific irrigation investments to be undertaken, as a greenfield pilot project in BR-0266, is the "Salitre Project," which is an area located in the municipality of Juazeiro in the state of Bahia. This project, if developed, has a potentially irrigated area of 32,000 hectares and could very well take advantage of the present conditions at the agribusiness development center that exists in the Petrolina-Juazeiro area, the most important irrigated zone in Brazil. The engineering part of the project is already conceptualized and its prefeasibility studies have been completed. As part of the proposed MIF operation it is expected that the existing information on the "Salitre project" will assist in the development of the new approach.

#### F. MIF's program and Bank's strategy

- 2.16 The proposed operation is fully compatible with the general objective of the MIF, which seeks the strengthening of the private sector as a form of accelerating economic growth and social development of the country. It is also compatible with the criteria to provide financial support under the Technical Cooperation Facility in Article 3, Section 2 (c) and (d) of the MIF Agreement, which establishes that its resources can be used for required consultant services to establish and/or reinforce regulated entities and advise in the design and implementation of privatization programs. MIF financing for this innovative project in Brazil is aimed at establishing a demonstration project that could be replicated not only in Brazil, but also in other countries of the Region.
- 2.17 This operation is also consistent with the Bank's strategy for Brazil. The Country Paper indicates that the Bank will participate in the financing of the irrigation sector and assist government authorities in the definition of the legal and institutional framework that will promote private sector investment in said sector.

### III. PROJECT DESCRIPTION

#### A. Objective

- 3.1 The general objective for the project is to develop the national legal and regulatory framework, as well as an "investment model" which will expand private sector investment in the irrigation sector in the Northeast Region. Specifically, the project will: (i) define and validate the conceptual framework for private sector participation in financing project development; (ii) develop the required regulatory framework to allocate land rights and leasing arrangements, water concessions, setting tariffs, undertake environmental management of potential environmental and social

impacts, and in managing contracts; (iii) conduct the "modeling" for the successful bidding of a pilot 1/ irrigation project that will allow the participation of the private sector in the financing of irrigation investments; and (iv) monitor the implementation of the pilot project.

- 3.2 The conceptual "model" will be developed under the following parameters: (i) stimulate private investment in the development of irrigated agriculture, in all phases of the production cycle; (ii) agricultural production based in market opportunities and characteristics, and under economic, environmental, and social sustainability principles; and (iii) limit government participation to a role of regulator, promotor, and facilitator, generating the information needed for private investment.

#### A VISION FOR THE FUTURE

With the development of the "new model", one expects to be able to apply the shopping center development concept. According to this concept, a developer obtains commitments from major "anchor" stores, and medium sized clients, before starting construction. Transferring this concept to the proposed scheme, the government acts as the developer, looking for clients to buy or make a commitment for buying before construction starts. This process also allows for a "built to suit" approach, in which the client specifies its needs. A second part of the model is to put up for sale the concession for water distribution to the project. Construction would only commence when the developer "sells" a certain percentage of the land (the stores) in the project, and the concession for the water system. For the Bank to finance part of the construction, certain benchmarks would have to be attained in terms of land "sold". The concessionaire for the water could very well apply directly to the Bank for the financing of its part of the project.

#### B. Description

- 3.3 The project will consist of the following components:

1. Definition and validation of the conceptual framework  
(US\$1,057,000)

- 3.4 The main activities to be developed in this component would be:

- a. general framework of agriculture and irrigation in Brazil;
- b. identification of the actual framework, including aspects such as: legal characteristics and framework for land property in the Northeastern region; markets, marketing and agricultural production; management and irrigation infrastructure; policy and practices in tariffs; and economic, financial and institutional policies. The studies will take into account the best practices of the irrigated areas of Petrolina-Juazeiro, Açú-Mossoró, Jaguaribe-Apodí, and Jaíba;
- c. identification of successful experiences and lessons learned in

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1/ Initial evaluation has indicated that the Salitre Project in the Petrolina Juazeiro area is the leading contender to be the "pilot" project.

other countries, with particular attention to: México, Chile, USA (California), Perú, Spain and South Africa;

- d. description of the proposed framework, observing the specific and general objectives proposed for the project;
  - e. formulation of a proposal containing the technical, financial, legal and economic alternatives, specifying the necessary actions to be taken, and the responsible parties for administering the desired changes (economic, financial, legal, institutional, tariffs, etc);
  - f. definition of the appropriate changes and/or complementary regulations needed, with the preparation of draft legislation, norms, legal and technical documents to respond to the identified needs;
  - g. identification of possible social and environmental impacts associated with the proposed conceptual framework;
  - h. the process of validating and adjusting the proposed conceptual framework will take place by bringing together potential investors (e.g. bankers, agribusiness entrepreneurs, etc.) from Brazil and other countries to gauge private sector interest in participating in this type of venture, as well as meeting with other relevant actors important for developing the proposed model. The same actors will be invited to a "workshop" where the draft proposal will be presented and discussed. These meetings will allow the testing, validation and the adjustments that are deemed necessary for the proposed conceptual framework; and
  - i. the presentation of the new framework in a widely publicized seminar involving representatives from all involved entities.
2. Preparation and implementation of the regulatory framework  
(US\$102,000)
- 3.5 Having defined the characteristics of the conceptual and regulatory framework, the following activities will be developed for implementation:
- a. definition of tariff policy and the design of a corresponding regimen for tariff administration, that will ensure future investments, as well as the sustainability of the system;
  - b. establishment of norms and parameters to ensure service for the users and appropriate protection of the environment;
  - c. processing of appropriate changes or/and complementary regulations needed, with the approval of legislation, norms, legal and technical documents to respond to the needs identified;



- d. implementation of the new regulatory framework; and
  - e. initial dissemination and promotion of the new "model".
3. Preparation of documentation for bidding the pilot project  
(US\$691,200)
- 3.6 This component will finance the adaptation of existing pre-feasibility studies, engineering designs, financial and economic projections, environmental and social impact assessment of the pilot project, and the bidding documents that will allow the government to execute a successful international bidding of said project. One of the main results will be the identification of a local company or international consortia that will acquire the rights to develop the project. The conceptual framework of the pilot project will be applied in the Petrolina-Juazeiro agro-industrial development park. The conclusions and recommendations derived will be presented and analyzed in a "workshop" for its validation.
4. Support for the dissemination of the pilot project  
(US\$124,000)
- 3.7 Resources will be available to support the marketing of the pilot project, and to incorporate future adjustments to the conceptual and regulatory framework. The component will disseminate and promote the new model and its application; and stimulate national and international participation in the expected bidding of the pilot project. For this component, the following activities will be developed:
- a. documents will be generated to disseminate the opportunities related to investing in the pilot project, and the legal and institutional framework supporting private sector participation in these new opportunities. The material will be produced both in general and specific terms for the pilot project;
  - b. promotional missions to specific international markets, to disseminate the new opportunities;
  - c. two international dissemination seminars will be organized, to explain the frame of reference for private sector participation in the irrigation sector and more specifically for the promotion of the pilot project;
  - d. other dissemination and promotion activities such as radio and TV spots; newspapers and magazines pieces; advertisement and announcements; and

- e. an ex-post evaluation study will be conducted to review the process and to provide feedback for designing future projects and to further adjust the regulatory framework.

#### IV. PROJECT EXECUTION

##### A. The Executing Unit

- 4.1 The Banco do Nordeste (BNB) will be the entity responsible for the execution of this technical cooperation, through a Technical Support Group (TSG), which will act as the Executing Unit.
- 4.2 The BNB, located in Fortaleza, Ceará, is a government controlled regional financial institution created by Law N° 1.649/52. It is structured as a corporate entity and governed by private law. Its mission is to foster the sustained development of the Northeast of Brazil through the supply of financial resources and technical assistance. The TSG will be supervised by a Manager of the Development Policies Unit of the Bank, who will be assisted by an officer of the Corporate Business Group. The TSG will be also supported, as necessary, by the Technical Office for Economic Studies of the Northeast (ETENE).
- 4.3 In addition to the Manager and the assistant referred to above, the TSG will also include specialists in projects and in operations. The BNB, through its normal operating structure, will provide the TSG with technical support in accounting, acquisitions and procurement, data processing and publications. BNB will provide the TSG the facilities and office equipment necessary to execute this technical cooperation.

##### B. Coordination and Execution

- 4.4 Responsibility for the supervision of the execution of this technical cooperation is assigned at the federal level through the Project Execution Coordinating Committee, created by Inter-ministerial Decree #5, dated December 3, 1997.
- 4.5 The Coordinating Committee, presided by the Manager of the New Irrigation Project, includes representatives of the Secretariat of Water Resources of the (SWR) Ministry of the Environment, Water Resources and the Legal Amazon (MMA); the Secretariat of Planning and Evaluation and the Secretariat of International Affairs of the Ministry of Planning and Budgeting; the Secretariat of Rural Development of the Ministry of Agriculture; the National Department of Works for the Alleviation of the Effects of Drought (DNOCS); the San Francisco Valley Development Company (CODEVASF) and the BNB.

##### C. Execution and Disbursement

- 4.6 The modality of execution for components 1 and 3 of this Technical Cooperation will be the provision of technical assistance to be

performed by a specialized firm or a consortium of specialized firms. The execution of components 2 and 4 will be performed by the TSG and other competent government entities assisted by consultants (firms or individuals). The terms of reference for these consulting services are in the project technical files. The procurement for these services will be by international public bidding in accordance with the current regulations and procedures of both the Bank and the MIF.

- 4.7 Program execution will take 24 months, with a disbursement period of 30 months. The disbursements of the MIF resources will be made in accordance to annual disbursement plans, and utilizing the procedures of the Bank and the criteria of eligibility of the MIF.

**D. Technical and Financial reports**

- 4.8 The first Annual Operative Plan (POA) will be presented for final approval by the Coordinating Committee and the Bank during the first two months after the establishment of the TSG. For the second year, the POA will be presented for approval at least two months prior to the beginning of the year. The POA will include a review and evaluation of the accomplishments achieved during the prior year, a description of problems encountered in this period as well as the corrective measures adopted; and the proposed program, budget and disbursement schedule for the following year.
- 4.9 The TSG will present the Bank annual technical and financial progress reports, including a description of the MIF and counterpart resources used. The financial reports should be audited by independent external auditors acceptable to the Bank. One year after completion of the program, the TSG will present to the Bank a report on the receipt of financial resources intended to support the financial self-sufficiency of the program. This report should also be audited by independent external auditors acceptable to the Bank.

**V. COSTS AND FINANCING**

**A. Costs**

- 5.1 The estimated cost for the program is US\$2.800.000: (i) US\$1.400.000 from the MIF (Facility I) and (ii) US\$1.400.000 from the local counterpart. The expected costs are budgeted according to the components presented in the following table:

SUMMARY COST TABLE (US\$)			
	MIF	LOCAL	TOTAL
<b>I. PROJECT SUPERVISION</b>	<b>0</b>	<b>675,800</b>	<b>675,800</b>
A. Coordination	0	252,000	252,000
B. Inter-Institutional Team	0	93,000	93,000
C. Travel	0	74,000	74,000
D. Facilities & materials	0	256,800	256,800
<b>II. COMPONENTS</b>	<b>1,397,000</b>	<b>577,200</b>	<b>1,974,200</b>
A. Definition & validation of conceptual framework	832,000	225,000	1,057,000
B. Preparation & implementation of regulatory framework	0	102,000	102,000
C. Documentation for bidding pilot project	500,000	191,200	691,200
D. Support for implementation of pilot project	65,000	59,000	124,000
<b>III. CONTINGENCY</b>	<b>3,000</b>	<b>147,000</b>	<b>150,000</b>
<b>IV. TOTAL</b>	<b>1,400,000</b>	<b>1,400,000</b>	<b>2,800,000</b>

## B. Financing

- 5.2 MIF resources have been allocated mainly for components II.A and C, which will be contracted out through international public bidding process in accordance with current Bank and MIF regulations and procedures, and will mainly finance consulting services. Local counterpart resources will cover all of component II.B and portions of II.A, C and D. In components II.A and C, local counterpart resources will be used for the financing of travel, per diem, and media time associated with the dissemination of the new model. The local counterpart resources will also include cash contribution to finance costs associated with the execution of the program.

## VI. BENEFITS, FEASIBILITY AND RISKS

### A. Benefits

- 6.1 The definition of a "New Irrigation Model," financed by this project will allow the establishment of a partnership between the public and private sectors in the design and development of irrigation projects, allowing for a new entrepreneurship vision in all phases of the productive process, be it in farm or off farm, from input manufacturer to the final consumer.
- 6.2 The expected benefits from the Project include: (i) the participation of entrepreneurs, experts, workers, and specialized institutions in the development and implementation of a "New Model"; (ii) the transfer of methodologies and technologies needed for a transparent evaluation of the proposed "New Model"; and (iii) the application of the results of the studies used in the definition of a "New Irrigation Model", to a specific pilot project, which will help to improve the design and the benefit-cost relation of implementing new irrigation projects in the region.

- 6.3 As part of the final design, potential environmental and social impacts will be evaluated and appropriate irrigating measures incorporated as part of the Project. The proposed strategy of organizing workshops, community meetings and other public consultations, even before advancing to the final design stage should be considered as a direct benefit of the project. Implementation of the pilot project will bring the important benefit of job creation, mainly in harvesting and post harvesting activities such as packing houses. Usually these jobs tend to favor the hiring of women. An additional benefit will be the more efficient use of water resources because the new model will take into account the real cost of water.

**B. Feasibility**

- 6.4 The Brazilian Government is highly interested in the operation. In December of 1997 it created a Coordinating Committee by an inter-ministerial Decree to oversee its preparation. This Committee involves very high level officials from the Planning and Budget Ministry (SEAIN and SPA); from the Environment, Water Resources and the Legal Amazon Ministry (SWR, CODEVASF, DNOCS); from the Agriculture Ministry; and from the Banco do Nordeste do Brasil, which has been selected as the executing agency for the MIF operation.
- 6.5 Furthermore, Congress has also expressed its support by way of drafting a new irrigation law. Its supporters are expecting the results of this operation to allocate resources for its conclusion. At the state level, the Government of Bahia, where the Salitre project is located, is also actively involved in the discussions.
- 6.6 Banco do Nordeste (BNB) is the principal agency for economic development and financing of agro-industrial investments in the Northeast Region, and as such will have a important role in the definition of the "New Model". BNB has been an active agent in supporting and financing the "business" of irrigation, be it for investment or for the productive or market phases, complemented by training in management, and in exploring linkages within the agribusiness cycle. During 1996, BNB financed approximately 28.000 ha. of new irrigated areas and 150 ha. for rehabilitation. A total of R\$180 million where invested in all phases of the irrigated agribusiness cycle.
- 6.7 There is another pilot project being developed by BNB for Agroindustrial Integrated Development Parks in the Northeast, in partnership with the Ministry for Planning and Budget (MPO), which targets the "Pólo Petrolina/Juazeiro". This project consists in integrating the efforts of all the actors involved in the agribusiness cycle, plus the community, local and state governments, all in search of keeping the competitiveness of the region, within parameters of environmental sustainability and social equity.

**C. Risks**

- 6.8 The main risk associated with project execution would be the number of institutions involved in defining policy aspects, which could delay changes in preparing key required legislation or norms. This risk was discussed with the local authorities and based on their assessment, it can be mitigated or controlled by actions to be taken by the Coordinating Committee, created for project supervision. In addition recent privatization experiences in other sectors in Brazil have been very positive, which will contribute indirectly to the development of the proposed project. <sup>2/</sup>
- 6.9 A second risk would be difficulties in quickly processing the necessary legal framework in the Brazilian Congress. Recent experiences with the privatization of areas more subject to public or interest group pressures have demonstrated that it is possible to approve the necessary legislation without undue delays.
- 6.10 Banco do Nordeste is presently the executing agency for the IDB financed Northeast Tourism Program (PRODETUR). Although certain project design characteristics, changes in BNB's administration, and financial problems of participating states have affected project execution, BNB has demonstrated to be an adequate executing agency in the financing of other sectors, and has the management and administrative capabilities to perform the same role with this project.

**D. Environmental and social impacts**

- 6.11 The proposed operation focuses on the institutional aspects of financing irrigation systems with private capital. As such, it will strengthen the institutional and regulatory framework which should lead to a number of positive environmental benefits, primarily due to more rational use of water as full costs are internalized. These benefits include more effective supply of water, and better protection against third party and downstream impacts. The operational challenges associated with implementing the framework and ensuring that these benefits are realized will be tested in the pilot case study.
- 6.12 Nevertheless, potential negative impacts will be evaluated as part of the design of the framework for private sector financial participation, and measures to minimize them will be included in the final design of the framework, within the context of environmental protection at the state and federal level. Also, the Bank will review the bidding documents for the proposed pilot

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<sup>2/</sup> Although the National Development Bank (BNDES) is not an official part of the Coordinating Committee of this operation, it is supporting BNB in the preparation of the project.

project, including the environmental impact studies (RIMA) and required mitigations.

#### VII. EVALUATION

- 7.1 Project monitoring during execution will use: (i) indicators presented in the Log Framework (Annex I); (ii) annual operational plans (POAs); (iii) bi-annual progress reports prepared by the TSG; and (iv) impact evaluations.
- 7.2 Program evaluation will be made through annual technical and financial reports and the final report scheduled to be delivered upon completion of phase four. As agreed with the executing agency, it is considered that said reports and other data collected during execution should allow for an eventual ex-post evaluation.

**LOGICAL FRAMEWORK**  
**TC-97-090-83/MIF-BR**

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	HYPOTHESIS
<b>END</b>			
the legal and regulatory framework, as well as ent model" which will expand private sector in the irrigation sector in the San Francisco y	Land value, commercial transactions in the region, value and volume of exports.	Statistics and other national and regional data regarding the sector.	An appropriate macroecon framework is maintained, agricultural policy mak investments attractive in agricultural sector.
<b>PURPOSE</b>			
and validate the conceptual framework for sector participation in financing project ment	1.1 Creation of new sources of financing to foster private sector investment in irrigation.	Program monitoring system.	A critical mass of priv agents in attracted to i agribusiness.
the regulatory framework to allocate land water concessions, setting tariffs, and g contracts.	2.1 Creation of the legal enviroment for private investment in irrigation.	Legal framework in place.	Congress aproves the ne legislation
the "modeling" process that will permit the ful bidding of an irrigation project selected lot.	3.1 Bidding documents develop enough interest and are brought by private investors.	Number of bidding documents bought.	Private sector responds available resouces to i pilot project.
implementation and ex-post evaluation of the project.	4.1 To verify the compliance of the objectives and activities of the program.	TSG annual report.	Existance of suficient operational and supervi capacity at BNB level.



COMPONENTS	ACTIVITIES	INDICATORS	COST
IDENTIFICATION & VALIDATION OF CONCEPTUAL FRAMEWORK	<p>1.a identification of the actual framework, including aspects such as: legal characteristics and framework for land property in the region; markets, marketing and agricultural production; management and irrigation infrastructure; policy and practices in tariffs; and economic, financial and institutional policies;</p> <p>1.b identification of successful experiences in other countries, with particular attention to: Mexico, Chile, USA (California), Peru, Spain and South Africa;</p> <p>1.c description of the proposed framework, observing the specific and general objectives proposed for the project;</p> <p>1.d formulation of a proposal containing the technical, legal and economic alternatives; defining the necessary actions (changes) to be taken;</p> <p>1.e Validation and adjustment of the proposed conceptual framework through:</p> <ul style="list-style-type: none"> <li>. meetings with potential investors in both Brazil and other countries to gauge private sector interest in participating in this type of venture;</li> <li>. meetings with other relevant actors important for developing the proposed model;</li> <li>. workshop where the final draft will be presented and discussed;</li> <li>. revision and dissemination of the proposed conceptual framework, for public comments.</li> </ul>		US\$1.0
PREPARATION AND IMPLEMENTATION OF REGULATORY FRAMEWORK	<p>2.a definition of appropriate changes or/and complementary regulations needed, with the preparation of draft legislation, norms, legal and technical documents to respond to the identified needs;</p> <p>2.b definition of tariff policy and the design of corresponding regimen for tariffs administration, insuring increase of investments as well as the sustainability of the system;</p> <p>2.c establishment of norms and parameters for service quality to insure adequate protection to the users, and water resources;</p> <p>2.d implementation of the new regulatory framework; and</p> <p>2.e initial dissemination and promotion of the new "model".</p>		US\$ 0.0

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COMPONENTS	ACTIVITIES	INDICATORS	COST
PREPARATION OF DOCUMENTATION FOR THE PILOT PROJECT	<p>3.a preparation of project studies:</p> <ul style="list-style-type: none"> <li>. engineering and technical design;</li> <li>. economic and financial projections;</li> <li>. enviromental evaluation;</li> </ul> <p>3.b bidding documents prepared;</p> <p>3.c workshop to discuss bidding documents;</p> <p>3.d bidding documents adjusted if necessary.</p>		US\$ 0.
PORT FOR IMPLEMENTATION OF PILOT PROJECT	<p>4.a promotion documents will be generated to disseminated the opportunities related to investing in the Salitre Project, and the legal and institutional framework supporting private sector participation in this new opportunities. The material will be produced both in general terms and specific for the Salitre;</p> <p>4.b promotional missions to specific international markets, to disseminate the new opportunities;</p> <p>4.c two international dissemination seminars will be organized, to explain the frame of reference for private sector participation in the irrigation sector and for the promotion of the Salitre Project specifically;</p> <p>4.d other activities related to the dissemination and promotion such as radio and TV spots; newspapers and magazines pieces.</p> <p>4.e an ex-post evaluation study will be conducted to review the process and to provide feedback for designing future projects and to further adjust the regulatory framework.</p>	<p>- Material generated and published</p> <p>- Public target informed and participating</p> <p>- Public target informed and participating, press releases</p> <p>- Press releases, advertising interviews</p> <p>- Project has been bid and is under execution</p>	US\$0.

**PROPOSED RESOLUTION**

**BRAZIL. NON-REIMBURSABLE TECHNICAL COOPERATION PROGRAM FOR  
A REGULATORY FRAMEWORK FOR PRIVATE INVESTMENT  
IN THE IRRIGATION SECTOR**

**The Donors Committee of the Multilateral Investment Fund**

**RESOLVES:**

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, on behalf of the Multilateral Investment Fund, to enter into such agreements as may be necessary with the Banco do Nordeste do Brasil, and to adopt such other measures as may be pertinent for the execution of the plan of operations referred to in Document MIF/AT-\_\_\_\_\_ with respect to a technical cooperation, the purpose of which is the development of a regulatory framework for private investment in the irrigation sector.
2. That up to the amount of US\$1,400,000 is authorized for the purpose of this resolution, chargeable to the Technical Cooperation Facility of the Multilateral Investment Fund.
3. That the above mentioned sum is to be provided on a non-reimbursable basis.