

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BRAZIL**

**SOCIAL AND ENVIRONMENTAL PROGRAM FOR THE  
IGARAPÉS IN MANAUS -  
PROSAMIM II**

**(BR-L1164)**

**LOAN PROPOSAL**

This document was prepared by the project team consisting of: Fernando Bretas (INE/WSA), Project Team Leader; Aderbal Curvelo (CSC/CBR); Roberto Monteverde (CSC/CBR); Hugo Oliveira (INE/WSA); Kléber Machado (INE/WSA); Cynthia Colaiacovo and Bernadete Buchsbaum (LEG/SGO); and Yolanda Galaz (INE/WSA); Marisa Teixeira, Nelson Simões, and Vera Bazzanella (consultants).

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Proposed resolution

Electronic Links	
<b>Required:</b>	
1. Plan of activities	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1349777">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1349777</a>
2. Monitoring and evaluation arrangements	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1349771">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1349771</a>
3. Environmental and social management report (ESMR)	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1350022">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1350022</a>
4. Executive summary of loan BR-L1005 (first phase)	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1375738">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1375738</a>
5. Safeguard policy filter	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1377893">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1377893</a>
6. Safeguard screening form	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1377892">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1377892</a>
<b>Optional:</b>	
1. Economic assessment	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1343892">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1343892</a>
2. Financial capacity assessment of the Government of the State of Amazonas	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1351846">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1351846</a>
3. Operating Regulations	<a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1355251">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1355251</a>

## ABBREVIATIONS

ARSAM	Agência Reguladora dos Serviços Públicos Concedidos do Estado do Amazonas [Regulatory Agency for Concessioned Public Services of the State of Amazonas]
AWP	Annual work plan
ESA	Environmental and social assessment
ESS	Environmental and social strategy
IBGE	Instituto Brasileiro de Geografia e Estatística [Brazilian Institute of Geography and Statistics]
IPAAM	Instituto de Proteção Ambiental do Estado do Amazonas [Environmental Protection Institute of the State of Amazonas]
PCAO	Plano de Controle Ambiental das Obras [Works Environmental Oversight Program]
PEAS	Programa de Educação Ambiental e Sanitária [Environmental and Health Education Program]
PROSAMIM	Programa Social e Ambiental dos Igarapés de Manaus [Social and Environmental Program for the Igarapés in Manaus]
UGPI	Unidade de Gerenciamento do Programa Igarapés de Manaus [PROSAMIM Management Unit]
WTP	Willingness to pay

**PROJECT SUMMARY**  
**BRAZIL**  
**SOCIAL AND ENVIRONMENTAL PROGRAM FOR THE**  
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Financial Terms and Conditions			
Borrower: State of Amazonas		Amortization period:	25 years
Guarantor: Federative Republic of Brazil		Grace period:	5 years
Executing agency: State of Amazonas, acting through the PROSAMIM Management Unit (UGPI)		Disbursement period:	5 years
<b>Source</b>	<b>Amount</b>	Interest rate:	LIBOR
IDB (Ordinary Capital)	US\$154 million	Inspection and supervision fee:	*
Local	US\$66 million	Credit fee:	*
Total	US\$220 million	Currency:	U.S. dollars from the Single Currency Facility
Project at a Glance			
<p><b>Project objective and description:</b>  The program's <b>general objective</b> is to help improve the quality of life for inhabitants of the Educandos-Quarenta and São Raimundo igarapé watersheds. Its <b>purpose</b> is to help solve the environmental, urban, and social problems affecting the city of Manaus and its inhabitants, specifically those living in the Educandos-Quarenta and São Raimundo watershed areas below the 30-meter flood contour, measured from the level of the Negro River at the Port of Manaus. The program's <b>specific objectives</b> are: (i) to improve environmental, habitability, and health conditions for the population in the program target area through the rehabilitation and/or installation of drainage, water supply, sanitary sewer, and solid waste collection and disposal systems; environmental remediation at the headwaters of the igarapés; urban land use planning, registration and titling of land, adequate housing solutions, and creation of recreational areas; and (ii) to continue strengthening the institutions involved in the program and building capacity together with the community to ensure sustainability, including public awareness campaigns and environmental and health education programs.</p>			
<p><b>Special condition precedent to the first disbursement:</b> The Operating Regulations approved by the Bank are in effect (see paragraph 3.9).</p>			
<p><b>Special execution conditions:</b> (1) Prior to the start of work on the Quarenta igarapé, the borrower will: (i) sign the addendum to update the memorandum of understanding with the water and sewer service concession holder for the city of Manaus, expanding its coverage area; (ii) sign agreements with institutions in need of continued institutional strengthening; (iii) commission studies to set the reduced rate for low-income customers and establish the sanitation fund; and (iv) hire four staff to strengthen the PROSAMIM Management Unit (UGPI) (see paragraphs 3.5 and 3.8). (2) By month 24, running from the effective date of the loan contract, the borrower will begin registration and titling of the property it owns in the Educandos-Quarenta igarapé watershed (see paragraph 2.9). (3) Prior to signature of the contract for execution of each of the program works, the borrower will sign an agreement with the water and sanitary sewer service concession holder for the city of Manaus (see paragraph 3.8). (4) Prior to the start of program works in a specific area, the borrower will demonstrate legal ownership of the land and rights-of-way (see paragraph 3.6), and will have completed resettlement of the affected families in accordance with the master resettlement plan (see paragraph 2.9). (5) By the end of year 1, running from the effective date of the loan contract, the borrower will sign the relevant legal instruments for strengthening of the institutions important for sustainability of the program works in the areas of sustainable economic development, human rights, civil defense, property rights policy, and sports and recreation (see paragraph 3.8).</p>			
<p><b>Exceptions to Bank policies:</b> None.</p>			
<p><b>Project consistent with country strategy:</b>    Yes <input checked="" type="checkbox"/>                      No <input type="checkbox"/>   </p>			
<p><b>Project qualifies as:</b>                      SEQ <input checked="" type="checkbox"/>              PTI <input checked="" type="checkbox"/>    Sector <input type="checkbox"/>              Geographic <input type="checkbox"/>              Headcount <input checked="" type="checkbox"/></p>			

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\* The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

## I. DESCRIPTION AND RESULTS MONITORING

- 1.1 **The social, urban, and environmental problem.** Like other Brazilian metropolitan areas, the city of Manaus expanded rapidly in the second half of the last century, growing by an average of 4.87% per year and outpacing nationwide growth following the creation of the customs-free zone in 1967. According to the Brazilian Institute of Geography and Statistics (IBGE), the population of Manaus grew from 311,622 inhabitants in 1970 to 1,644,690 in 2005. In that year, the customs-free zone created 100,000 direct jobs and achieved annual output on the order of US\$23 billion. Given the job prospects it offered, the customs-free zone has made Manaus a pole of attraction for large, mainly low-income population contingents.
- 1.2 This migration resulted in haphazard and often illegal occupation of urban areas, despite the fact that the city of Manaus has an integrated local development plan and, more recently, an urban and environmental master plan. Low-income immigrant populations occupied areas on the banks of the streams, known as igarapés, that drain the city towards the Negro River. Every year in the January-to-June rainy season these streams feed into the Negro River and swell its volume significantly, raising the water level from 13.6 to 29.7 meters; this is the reason for setting the reference flood contour at 30 meters above sea level (masl). Because of this phenomenon, the small streams become large rivers that, in conjunction with unchecked urbanization, flood homes below the 30 masl contour, inflicting major human, financial, and social damage. Government estimates are that some 62,500 inhabitants of Manaus were living below the 30 masl contour in 2003, which entails the following problems: (i) high flood hazard; (ii) lack of macro- and microdrainage systems; (iii) limited or nonexistent solid waste collection; (iv) limited or nonexistent sanitary sewer systems; and (v) proliferation of water-borne illnesses.
- 1.3 **The government's strategy.** The current administration of the Government of the State of Amazonas has adopted a strategy of working with the município on a broad range of actions and interventions to address these problems. Total investments are estimated at US\$800 million over a 12-year period, calling for systematic planning and effective community participation. The first of these investments has already begun with Bank support (PROSAMIM I, loan 1692/OC-BR). At the same time, the município is acting to minimize the risk of new squatting in the igarapés, through preventive policies based on increasing the supply of low-cost housing and controlling vulnerable areas. In addition, the designation of special areas of social interest by the município will increase the supply of low-cost land for residential uses, thereby affording low-income families access to areas properly equipped with urban facilities.
- 1.4 **PROSAMIM I.** The strategy assigned priority to target areas based on a socioenvironmental cost/benefit ratio, bearing in mind population density and the severity of social and environmental problems caused by: (i) the clearing of protective woodlands in headwater areas; (ii) water pollution from residential and

industrial effluents; and (iii) excessive soil impermeabilization, etc. Based on this criterion, the Educandos/Quarenta igarapé watershed, with a population density of 115 inhabitants per hectare and 31,973 people living below the 30 masl contour, was chosen as a first priority. The second priority is the São Raimundo watershed, with a density of 32 inhabitants per hectare, and a population of 15,510. The PROSAMIM I activities and works, execution of which began in 2006 with a scheduled completion date in mid-2010, are concentrated in the Educandos/Quarenta watershed.

- 1.5 PROSAMIM I was designed as a global multiple works program with a sample of works concentrated in the igarapés of Manaus, Bitencourt, and Mestre Chico, and recognizing a portion of the works being executed by the state government in the Quarenta and Cachoeirinha igarapés as the counterpart contribution. The works in the three igarapés of the sample have been commissioned and are in execution, while those in the Cachoeirinha and Quarenta igarapés (between the Maués Avenue bridge and Foz) are in the final phase of execution. The resettlement program has progressed successfully with the construction of 567 new homes and the resettlement of 4,518 families who chose the alternatives proposed in the Specific Resettlement Plan, particularly the “housing voucher” option in which 1,967 families chose to purchase their own home on the local market. In 2006 and 2007, socioenvironmental and institutional sustainability actions included 91 vocational training events (courses, seminars, workshops), in which 3,039 people participated. In the same period, 5,476 people participated in the environmental education program. The achievements of the first 24 months of program execution are set out in Table I.1, and are on schedule with the works execution timetable. The targets with the lowest fulfillment levels are for works that can only be built at the final execution stage, slated for late 2009. At present, 409 new homes are under construction.

**Table I.1. Achievements of PROSAMIM I**

<b>Targets</b>	<b>Planned</b>	<b>Achieved</b>
Macrodrainage culverts	2,500 m	3,045 m
Stormwater galleries	5,500 m	950 m
Water networks	700 m	4,400 m
Parks and gardens created	15 ha	3.68 ha
Families resettled	3,500	4,518
Dwellings built	1,956	567
Properties titled and registered	2,000	650
Streets and avenues built	11,500 m	4,108 m
Homes connected to water system	3,300	567
Homes connected to sewer system	12,000	843
Decrease in incidence of severe diarrhea	57/10,000	53/10,000
Decrease in incidence of hepatitis A	7/10,000	3/10,000

- 1.6 **Continuity of actions.** The sequence of actions begun with PROSAMIM I involved preparing the studies, designs, and bidding documents necessary to tender priority works such as the segment between Maués Avenue and Rodrigo Otávio Avenue in the Educandos/Quarenta watershed, and the start of works in the Franco, Bombeamento, and Sapolândia igarapés in the São Raimundo watershed, using internally generated resources and funding from the Caixa Econômica Federal savings bank. Priority was also given to the “extended triangle” area in the São Raimundo watershed and Foz de Educandos, and a future plan of action was defined for other investments in the São Raimundo watershed and in the segment of the Quarenta igarapé upstream from Rodrigo Otávio Avenue.
- 1.7 **Rationale for the program and the Bank’s participation.** The program and the Bank’s involvement are justified by: (i) the need to make progress on PROSAMIM activities to address the identified priority areas, providing continuity for the state government program and minimizing the population’s exposure to flood hazards; (ii) the impossibility of executing all actions planned for PROSAMIM I, because of the appreciation of the Brazilian real; and (iii) continuing a course of action that is successfully meeting the proposed objectives, as evidenced by the resettlement of 4,518 families without any social confrontation, providing adequate care for families in positions of vulnerability and opportunities for community and economic development of the resettled population through social inclusion programs. A significant impact has also been achieved on health conditions in the city (see Table 1.1). The program fits into the second strategic line of activity of the Bank’s country strategy with Brazil (document GN-2327-1), which aims to improve habitability, efficiency, and environmental quality in cities.
- 1.8 **The PROSAMIM II strategy.** The strategy adopted for preparation and execution of PROSAMIM II is to complete the priority works described in paragraph 1.6, incorporating the following into the new design: (i) key issues outstanding from the first stage, to begin immediate implementation; (ii) lessons learned; and (iii) fine-tuning of the socioenvironmental management instruments and Operating Regulations. With this rationale, PROSAMIM II addresses: (i) the need to integrate and strengthen the environmental, social sector and engineering coordination subunits; (ii) updates to existing agreements with the institutions involved and the addition of new ones to prevent execution delays; (iii) detailed operation and repayment specifications for water and sewer works, for negotiation with the concession holder, Águas do Amazonas; (iv) changes in architectural design to lower the cost of housing solutions; (v) streamlining of procurement processes; (vi) separate contracting of support for program management and works supervision; (vii) commissioning of studies pending from PROSAMIM I (industrial pollution control plan, solid waste master plan, Educandos/Quarenta watershed flood contingencies plan, land use plan); (viii) adjustments to the public awareness campaigns and the Environmental and Health Education Plan (PEAS) to directly address program needs; (ix) better synchronization between works execution timetables and resettlement activities; and (x) registration and titling of properties located around the program target area.

**A. Objectives, components, and design**

- 1.9 The program's **general objective** is to help improve the quality of life for inhabitants of the Educandos-Quarenta and São Raimundo igarapé watersheds. Its **purpose** is to help solve the environmental, urban, and social problems affecting the city of Manaus and its inhabitants, specifically those living in the Educandos-Quarenta and São Raimundo watershed areas below the 30-meter flood contour, measured from the level of the Negro River at the Port of Manaus.
- 1.10 The **specific objectives** are: (i) to improve environmental, habitability, and health conditions for the population in the program target area through the rehabilitation and/or installation of drainage, water supply, sewer, and solid waste collection and disposal systems; environmental remediation at the headwaters of the igarapés; urban land use planning, registration and titling of land, adequate housing solutions, and creation of recreational areas; and (ii) to continue strengthening the institutions involved in the program and building capacity together with the community to ensure sustainability, including public awareness campaigns and environmental and health education programs. The program contributes a city to the 100 Cities program under the Bank's Water and Sanitation Initiative (document GN-2446-3).
- 1.11 PROSAMIM II is also designed as a global multiple works program, with interventions in the Educandos-Quarenta and São Raimundo igarapé watersheds. Works in the Educandos-Quarenta watershed are concentrated in the segment located between the Maués Avenue bridge and Rodrigo Otávio Avenue, and constitute the sample for a budgeted amount of US\$114.6 million, or 52.09% of the total program. The works identified in the headwaters of the Educandos igarapé watershed will be undertaken at a later stage. Works in the São Raimundo watershed in the Bombeamento and Franco igarapés, which are already under way, will be recognized as a counterpart contribution, as the findings of the economic analysis indicate (see paragraph 2.15), up to a total of US\$39.4 million. The program will also finance studies and projects in the São Raimundo watershed, together with advanced basic designs for: (i) the triangle contained by the Presidente Dutra and Jorge Teixeira bridges of that watershed; and (ii) Foz de Educandos. The program will also finance studies and designs included in the engineering and administration line item, which also includes final designs and other necessary studies. The remaining resources will be used in eligible projects in accordance with the Operating Regulations, which have been reviewed and approved by the borrower, acting through the PROSAMIM Management Unit (UGPI), and by the Bank, consistent with the aforementioned priorities (see paragraph 1.6).
- 1.12 **Structure.** The experience of the first loan showed that the investments and activities conducted and their organizational structure were effective, so the second program will also have two components: (i) environmental, planning, and housing improvements; and (ii) social and institutional sustainability.

1.13 **Environmental, urban planning, and housing improvements (US\$195.1 million).** This component encompasses all investments in works and facilities necessary to meet the proposed objectives. It will therefore finance works involving stormwater macro- and microdrainage, sanitary sewers, water supply, road system improvements, urban renewal and reorganization, environmental remediation, housing construction with the necessary infrastructure, and other activities to resettle at-risk families.

1.14 **Social and institutional sustainability (US\$4.3 million).** This component will: (i) help to improve the operational and management capacity of the entities involved in program implementation and the subsequent operation and maintenance of program works, as well as (ii) promote effective community participation in creating the conditions for the program activities to be sustainable. In pursuit of these objectives, it will finance: (i) the continuation and expansion of awareness and community participation campaigns, (ii) environmental and health education activities, (iii) additional activities to fully resettle at-risk families, and (iv) continued strengthening of the institutions already participating in the program, including the Município of Manaus, and new institutions identified as important. Support will also be provided to prepare the Manaus Drainage Master Plan.

## **B. Cost, currency, and financing**

1.15 The total cost of the program will be US\$220 million. Of that amount, US\$154 million will be financed as a loan, and US\$66 million provided as the counterpart contribution of the Government of the State of Amazonas (GSA). This amount is 10% higher than the amount initially authorized by the federal government; however, the Federal Committee for External Financing (COFIEF) authorized the 10% increase in the loan amount under Resolution 372 of 25 April 2008.

**Table I.2. Cost and Financing**

Items/components/subcomponents		Program total		By source (US\$000)		By source (%)	
		(US\$000)	%	IDB-OC	GSA-CP	IDB-OC	GSA-CP
<b>I</b>	<b>Engineering and administration</b>	<b>19,515</b>	<b>8.87</b>	<b>18,484</b>	<b>1,031</b>	<b>94.7</b>	<b>5.3</b>
1.1	Program execution unit	1,100	0.50	990	110	90.0	10.0
1.2	Management and supervision of works	6,475	2.94	6,151	324	95.0	5.0
1.3	Studies and designs	11,940	5.43	11,343	597	95.0	5.0
<b>II</b>	<b>Direct costs</b>	<b>199,425</b>	<b>90.65</b>	<b>134,509</b>	<b>64,916</b>	<b>67.4</b>	<b>32.6</b>
2.1	Environmental, urban planning, and housing improvements	195,141	88.70	130,848	64,293	67.1	32.9
2.2	Social and institutional sustainability	4,284	1.95	3,661	623	85.4	14.6
<b>III</b>	<b>Associated costs</b>	<b>1,060</b>	<b>0.48</b>	<b>1,007</b>	<b>53</b>	<b>95.0</b>	<b>5.0</b>
3.1	Audit, evaluation, and monitoring	1,060	0.48	1,007	53	95.0	5.0
<b>IV</b>	<b>Financial costs*</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>1</b>
<b>Total</b>		<b>220,000</b>	<b>100</b>	<b>154,000</b>	<b>66,000</b>	<b>70.0</b>	<b>30.0</b>

\* Financial costs will be borne by the Government of the State of Amazonas, and are not included in the counterpart contribution.

## C. Key results indicators

- 1.16 The principal specific expected outcomes of program execution are summarized below, and described in greater depth and detail in the Results Framework contained in Annex I.

**Table I.3. Key Results Indicators**

Expected outcome	Indicator*
Improvement of water quality in the Educandos igarapé	BOD5: from 240 mg/l to 20 mg/l COD: 152.3 mg/l to 75 mg/l Fecal coliform: from $\geq 2,400$ MPN/100 ml to 1,000 MPN/100 ml
Decrease in the population affected by floods	from 15,500 to 0
Decrease in the incidence of severe diarrhea	from 53/10,000 to 21/10,000
Reduction in number of dwellings located in squatter settlements in the city of Manaus	from 84,500 to 80,500 (5%)

\* Indicator measured at the end of the program.

## II. FINANCING STRUCTURE AND RISKS

### A. Financing instrument and contract terms

- 2.1 The terms of the proposed loan, drawn upon resources of the Bank's Ordinary Capital, will be as follows: (i) LIBOR-based interest rate; (ii) 25-year repayment period; (iii) 4.5-year term for the physical start of works; (iv) 5-year disbursement period; and (v) 5-year grace period. The borrower will deliver to the Bank, for review, chargeable to the local counterpart resources, documentation of expenditures up to US\$39.4 million, incurred during the 18 months prior to approval of the loan by the Board of Executive Directors, subsequent to the date on which the project entered the Bank's pipeline, provided that such expenditures are included in the program and comply with the Bank's procurement policies. All expenditures incurred between the approval date of the operation and contract signature may be recognized, provided that they are eligible under the same requirements. Works currently in execution in the Franco and Bombeamento igarapés may be recognized against the counterpart contribution.

### B. Environmental and social safeguard risks and mitigation measures

- 2.2 The program has been classified as category B under the Bank's Environment and Safeguards Compliance Policy (OP-703). In keeping with the environmental and social strategy (ESS) suggested in the project profile, an environmental assessment was done of PROSAMIM II, including: (i) review of the environmental and social management instruments prepared for PROSAMIM; (ii) adaptation of the Operating Regulations to take account of the new operation, foreseeing the opportunity for future projects in other igarapé watersheds in Manaus; and

- (iii) obtaining of the environmental permits needed to prepare the operation, and the environmental and social guidelines and procedures to be applied during execution. Work was also done with the UGPI to identify specific institutional strengthening needs, bearing in mind the findings of the March 2007 midterm review (see paragraph 1.8) and the February 2008 risk assessment performed (see paragraph 2.10). It was concluded that the program complies with Bank policies and poses no environmental risk, since the existing management instruments are sound and the UGPI possesses the capacity to implement them.
- 2.3 PROSAMIM II will have a number of positive impacts, the most important of which are: (i) the withdrawal of some 15,500 people from areas prone to periodic flooding; (ii) the potential to improve the quality of life of the resettled population, which was 80% achieved in the first program; (iii) realization of expectations for better quality water, which already shows reductions of up to 50% in the index of fecal coliforms in the igarapés where work has been done; and (iv) significant urban improvement with the creation of greenspace and roads where previously there had a cluster of highly makeshift dwellings.
- 2.4 As is always the case with civil works, the construction and operation of sanitation and drainage projects, such as PROSAMIM, can have adverse environmental impacts. The works stage can cause disruption in the beneficiary communities and environment, including noise, traffic problems, detours and temporary road closures, pollution of the local environment, as well as workplace accidents involving workers and members of the community, and improper final disposal of rubble. The following have been prepared to mitigate such impacts: (i) a specific Works Environmental Oversight Program (PCAO), which also covers occupational safety and health; and (ii) a public awareness campaign to inform and warn the population directly affected by the works. Impact mitigation is supplemented by an extensive Environmental and Health Education Program (PEAS) with educational activities for the entire urban population of Manaus, the resettled population, and those remaining in the area of the igarapés where work was done. For projects not included in the sample, environmental criteria have been designed for project eligibility, which form an integral part of the program Operating Regulations.
- 2.5 **Environmental permit.** With the Bank's guidance and as required by law, the UGPI obtained a preliminary permit for the program from the Environmental Protection Institute of the State of Amazonas (IPAAM) in January 2008. IPAAM also issued construction permits for projects in the representative sample, already under construction in the Educandos/Quarenta watershed. Mitigation programs and monitoring and supervision plans, based on permit requirements and the Bank's recommendations, are contained in the PCAO, public awareness campaigns, and PEAS, which are the UGPI's responsibility. An environmental and social assessment (ESA) will be done for the São Raimundo watershed, to identify the works to be financed, assigning priority based on environmental, social, economic, and financial criteria. The terms of reference of the ESA have been reviewed and approved by the Bank, and are ready for contracting.

- 2.6 **Environmental management and monitoring.** As a multiple works program, one of this operation's management instruments is an Operating Regulation that sets environmental criteria for project eligibility, among other things, in their identification, evaluation, and execution stages. For each stage, guidelines are provided for the required environmental assessment, the consultation process and public participation, and preparation of the environmental and social management plan, in accordance with the Bank's operational policies.
- 2.7 **Resettlement.** Any involuntary displacement of the population creates resistance when leaving the place of origin. Nonetheless, the resettlement plan developed for PROSAMIM I has met with no objection from the affected population, and the program has the following instruments in place to minimize this risk: (i) a specific resettlement plan, which offers a set of suitable alternatives for dealing with the different socioeconomic situations identified in the diagnostic study; (ii) a community participation plan, which implements a participation mechanism enabling affected people to express their expectations and needs within the various participatory bodies; there is also a Crisis Management Committee staffed by representatives from the affected communities, to settle any disputes at the level of each family to be relocated; and (iii) a public awareness plan, which follows a communication strategy adapted to the population profile to provide all information necessary for beneficiaries to fully familiarize themselves with the program and their rights.
- 2.8 Another resettlement-related risk is that suitable housing solutions may not become available in time to vacate the areas required by the program. This risk is greater in PROSAMIM II, because the "housing voucher" solution, which accounted for 60% of the solutions implemented in the first program, will not be as efficient this time because the real estate market is tight. The mitigation measure in this case is proper works planning to ensure housing units are built before the road and sanitation works begin. As an additional measure, the program also envisages the provision of temporary shelters for the population via the "temporary housing subsidy," which provides a monthly sum for the family to make its own provisional relocation arrangements. **The resettlement of families affected by the program in accordance with the master resettlement plan will also be a condition precedent to the start of works in a specific area of any igarapé.**

**C. Other key issues and risks**

- 2.9 **Registration and titling of government-owned property in the surrounding area.** The PROSAMIM I midterm review noted that no proposal had been advanced, or effective action taken, to register/title property or plan the urban development of dwelling units around the program target areas. This situation remains unaddressed, and must be resolved during the execution of PROSAMIM II. **The borrower will begin registration and titling of the property it owns in the Educandos-Quarenta igarapé watershed within 24 months, running from the effective date of the loan contract.**

- 2.10 **Fiduciary risk.** A risk analysis of the program was done, using the “expert choice & periscope” methodology. The risk was rated as moderate (25.45 points on a scale from 0 to 100). The main risks identified concern: (i) the availability of final designs within the necessary timeframes; (ii) a lack of qualified personnel for procurement management and contract monitoring, as well as technical monitoring and supervision of each project; and (iii) the likelihood of counterpart funding being available in a timely manner. The following measures were identified, to mitigate these risks: (i) continuation of program execution support services, provided by a management firm, as described in paragraph 3.4, and strengthening of the UGPI’s supervision capacity; (ii) idem (i); and (iii) the fact that a substantial number of works have been executed using state government resources (see paragraph 1.11), and the requirement that the annual work plan (AWP) prepared at the end of each year should take account of the approved State budget decree with a specific appropriation to cover the *pari passu* of program disbursements.
- 2.11 **Institutional and financial risk.** Analyses of the state government’s financial capacity through 2004 were performed for the first loan, revealing strong fiscal performance and financial capacity. Analyses for the last three years show that the primary balance has remained in surplus (150.6 million and 334.3 million reais in 2006 and 2007, respectively), and the amounts exceed the financial expense of the debt. The state government also has stayed within the limits set by the Fiscal Responsibility Law: in 2007, payroll expenditure accounted for 38% of net current income (limit 49%); the ratio of debt to net current income was 19% (limit 200%); debt service was 4.5% (limit 11.5%); and the ratio between credit transactions and net current income was 2.5% (limit 16%). In 1997, the State authorities signed an agreement with the federal government whereby the latter would take over and refinance the debt, entailing a restructuring and fiscal adjustment program to be reviewed annually by the National Treasury (STN). The state government has been meeting the financial targets set in the 2007 review. The analysis shows that the State of Amazonas has the borrowing ceilings and financial capacity to make the local counterpart contributions and repayments on the Bank loan.
- 2.12 **Political risk.** According to the program execution schedule, interventions will be contracted and executing in the next two years, before the State governorship elections. PROSAMIM has also been recognized by the population as a public policy arising from a social demand adopted by the political class, so the risk of interruptions in the execution schedule is considered very low.
- 2.13 **Operation and maintenance.** The operation and maintenance of works are the responsibility of the município to which they will be transferred; for this reason, proceeds from the first loan have been used to build capacity. For the PROSAMIM I activities, the state government has signed agreements with the município and Águas do Amazonas, setting out the obligations of each party. The framework agreement between the state government and the município will need to be adapted to include the PROSAMIM II activities. Water and sewer services are being operated and maintained under a concession contract with the private firm,

Águas do Amazonas. The memorandum of understanding that the state government signed with Águas do Amazonas includes its approval of the projects and the signature of specific agreements for each one prior to contracting. A financial agreement will also be signed before the sample works under the first loan are completed, to ensure that the state government receives the portion of the user charge corresponding to investments undertaken by it. All agreements also bear the signature of the concession-granting authority (município) and the Regulatory Agency for Concessioned Public Services of the State of Amazonas (ARSAM). Studies are being commissioned for the financial agreement and to institute a sanitation fund, using resources from the first loan. Provisions for the maintenance of goods, works, and equipment procured will be included in contracts entered into with the participating entities. During the five years following completion of each work and each equipment purchase under the program, beginning in the fiscal year following acceptance of the first program work or equipment, the borrower will provide the Bank with a report on such works and equipment and their annual maintenance plan in the first quarter of each year.

- 2.14 **Socioeconomic viability.** A socioeconomic assessment was performed on the sample of projects in the Educandos/Quarenta watershed, which includes the Quarenta igarapé; and the socioeconomic feasibility of São Raimundo watershed projects was verified, including the Franco, Sapolândia and Bombeamento igarapés. The assessment compared benefits and costs with and without the program. The program interventions will include projects in the following areas: drainage, roadworks, sanitary sewers, housing solutions, and social use areas. The benefit calculations were based on contingent valuation surveys that estimated willingness to pay (WTP), surveys of shorter travel times and lower vehicle operating costs, property value appreciation, value of the decrease in property damage and cleanup expenses after flooding, and the reduction in health costs. The costs used for the evaluation were incremental investment and operation and maintenance costs, valued at efficiency prices. The opportunity costs of land used for housing and works of social use were also considered, even though some of these works are owned by the State. Drainage works underwent an analysis of alternatives to identify the least-economic-cost alternative, including type of surfacing (concrete vs. gabion), and identification of the optimal payback period.
- 2.15 Cost-benefit analysis was performed for each project and for the watershed as a whole (i.e. Educandos/Quarenta and São Raimundo). The works in the Quarenta igarapé have been divided into two lots, the first to be executed in this program, and the second with future financing. The analysis was done for the works in the first lot and for the igarapé as a whole (first and second lots). The benefits of drainage and road rehabilitation were estimated from the reduction in transport times and costs, expected appreciation, and damage prevented. The resettlement benefits were estimated as the difference between the rental value of the housing solutions provided and the rent currently being paid. The benefits of sewers, water, and social areas were estimated on the basis of WTP values. Benefits generated by lower healthcare costs were also taken into account. The results of the analyses show that

the program is economically viable at the level of each watershed, as well as at the project level, with economic internal rates of return (EIRRs) above 12% per year. Sewer projects are exceptions to this, since the calculated rate of return does not include all the unquantifiable environmental benefits, some of which will only be realized when the second lot of works is executed in the Quarenta igarapé. The cost-benefit analysis of all works in the Quarenta igarapé yielded internal rates of return above 12% per year; the benefits/cost ratio was also above 1. The cost-benefit analysis of the Bombeamento, Franco and Sapolândia igarapés yielded EIRRs above 12% per year only for the Bombeamento and Franco igarapés.

**Table II.1. Economic Cost-Benefit Analysis  
Educandos/Quarenta and Sao Raimundo Watersheds**

Igarapé	Economic net present value (US\$000)				EIRR	B/C
	Benefit	Investment	O&M	Net benefit		
Quarenta (first lot)	136,388.00	121,994.85	5,518.29	8,924.86	13.05%	1.07
Quarenta (first and second lots)	165,962.85	130,908.57	6,765.14	28,289.14	15.36%	1.21
Bombeamento	3,377.71	3,084.00	86.86	206.85	13.30%	1.07
Franco	27,863.43	24,288.00	734.86	2,840.57	17.67%	1.24

- 2.16 Sensitivity analysis was performed by varying the values obtained for transport time and cost savings, and the WTP figures for drainage, sewer, and greenspace projects. The analyses yielded robust viability results, except for the drainage and resettlement project where no cost increase is admissible. The other projects accept cost increases of up to 10%, and up to 20% reduction in expected benefits.
- 2.17 **Ability to pay.** Payment capacity was calculated for the beneficiaries of water and sanitation systems, based on IBGE data; but this was not calculated for drainage and road rehabilitation works. The monthly account for the service was found to be less than 5% of family income among the program beneficiary population. The average basic payment for water and sewer services, assuming residential water consumption of 10 cubic meters per month, is 18.08 reais per month. Data on income distribution in the program target areas show that the average basic cost would be above 5% of monthly income for 15% of the families, and so could result in higher levels of payment arrears for the water and sewer service. To avoid a reduction in revenue collection rates and to maintain investment levels, a proposal has been submitted to ARSAM for a study to create a reduced rates for low-income customers (targeted and based on household size and income) supported by a State subsidy. This reduced rate applicable to average monthly residential consumption in the program target area would ensure that the water and sewer service payment does not exceed 5% of beneficiary family incomes.

- 2.18 **PTI.** The proposed program qualifies as a poverty-targeted investment. The headcount of low-income beneficiaries is 67%, based on a minimum wage of 360 reais at the time of the analysis.

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

- 3.1 **Borrower, executing agency, and guarantor.** The borrower will be the State of Amazonas, which will execute the program through the PROSAMIM Management Unit (UGPI). The Federative Republic of Brazil will guarantee the financial obligations arising from the loan contract entered into between the borrower and the Bank.
- 3.2 **Implementation arrangements.** The borrower has established the UGPI, reporting to the governor's office, to conduct the Social and Environmental Program for the Igarapés in Manaus (PROSAMIM). It has financial and operational autonomy, with an executive coordinator and technical coordination subunits in the following areas: planning, engineering, social sector, environmental, financial management, institutional and legal, in addition to advisory support in information technology and awareness-raising, and a Special Bidding Committee dealing exclusively with program procurements. The UGPI will use the same information and works management system introduced for PROSAMIM I.
- 3.3 The UGPI will perform functions relating to technical, administrative, and financial procedures associated with execution of the loan, as well as program supervision, monitoring, and evaluation. Its specific functions include: (i) planning of loan execution and annual work plans (AWPs); (ii) preparation and updating of procurement plans; (iii) review of bidding documents for the procurement of consulting services, works and goods, ensuring that they adhere to Bank procurement policies; (iv) support and monitoring of the progress of consulting and works contracts and goods procurement; (v) preparation and processing of the corresponding payments; (vi) preparation of financial statements and disbursement requests; and (vii) monitoring and evaluation of program execution.
- 3.4 The UGPI will utilize the existing support structure for program management and fiduciary functions and for works supervision, which includes a works management and supervision firm. Upon termination of this contract and thereafter, the UGPI will tender contracts separately for support of works management and works supervision.
- 3.5 The program's midterm review, conducted in 2007 using the Institutional Capacity Assessment System (ICAS) methodology, and the risk analysis done in February 2008, demonstrated that the UGPI's project execution capacity is sound, but identified a number of areas needing improvement (see paragraph 1.8). These are already being addressed with Bank guidance, together with specific actions needed to execute this second phase. In this regard, it has been agreed that, **prior to the start of work on the Quarenta igarapé, the borrower will hire two**

- environmental specialists and two engineers to strengthen the environmental and works supervision coordination subunits, respectively.**
- 3.6 **Sequence of execution.** The execution of works on an igarapé begins with the resettlement of resident families, and then continues with culverting, drainage, earthmoving, bank compaction, and access roads. Construction then proceeds to water and sewer works (as required) and concludes with any necessary paving and parks. **Prior to the start of any program works, the borrower will demonstrate legal ownership of the land and rights-of-way.**
- 3.7 **Project readiness.** Works in the first year already have engineering designs, environmental permits, terms of reference, and bidding documents for immediate tender. In the case of the São Raimundo watershed, terms of reference have been prepared and approved for the engineering and socioenvironmental studies needed to tender the works in 2009.
- 3.8 **Agreements for the implementation of PROSAMIM II.** The memorandum of understanding between the borrower and the water and sewer service concession holder for the city of Manaus will have to be adapted to include the PROSAMIM II interventions. **Prior to the start of work on the Quarenta igarapé, the borrower will: (i) sign an addendum to update the memorandum of understanding with the water and sewer service concession holder for the city of Manaus, expanding its coverage area; (ii) sign agreements with institutions in need of continued institutional strengthening; and (iii) commission studies to set the reduced rate for low-income customers and establish the sanitation fund. Prior to signature of the contract for execution of each of the program works, the borrower will sign a specific agreement with the water and sanitary sewer service concession holder for the city of Manaus, defining the responsibilities of the parties in keeping with the memorandum of understanding.** To further strengthen the institutions important for program sustainability, **new agreements will be signed with the institutions responsible for sustainable economic development, human rights, civil defense, property rights policy, and sports and recreation, within one year after signature of the loan contract.**
- 3.9 **Operating Regulations.** Operating regulations have been prepared to guide the preparation of projects and execution of works not included in the representative sample. They describe the eligibility criteria, and the methodology and procedures to be used for program execution. Economic, environmental, engineering, resettlement, and social eligibility criteria are defined separately in five annexes. The Operating Regulations also contain guidelines to ensure compatibility between projects and works implementation with the respective timetables. The Operating Regulations have been reviewed and approved by the UGPI and by the Bank. **Implementation of the Operating Regulations will be a condition precedent to the first disbursement.**
- 3.10 **Disbursements.** Table III.1 shows the projected disbursement schedule.

**Table III.1. Disbursement Schedule**

Source	Year 1		Year 2		Year 3		Year 4		Year 5	
	US\$ million	%	US\$ million	%	US\$ million	%	US\$ million	%	US\$ million	%
IDB-OC	24.6	16.0	46.5	30.2	59.0	38.3	23.0	14.9	1.0	0.6
GSA-CP	40.6	61.5	7.8	11.8	11.2	16.9	6.0	9.0	0.5	0.7
Total	65.2	29.6	54.3	24.7	70.2	31.9	29.0	13.2	1.4	0.7
Cumulative	65.2	29.6	119.4	54.3	189.6	86.2	218.6	99.3	220.0	100.0

- 3.11 **Procurement.** Program goods, works, and consulting services will be procured in accordance with Bank policy documents GN-2349-7 and GN-2350-7 of July 2006. The UGPI has gained experience with these policies, including the use of Brazil's Pregão Eletrônico e-procurement system, which is accepted by the Bank.
- 3.12 **Revolving Fund.** A revolving fund equivalent to 5% of the total loan amount will be established for program disbursements, in accordance with Bank procedures. The UGPI will oversee use of the fund, prepare disbursement requests on behalf of the borrower, and deliver fund usage reports to the Bank within 60 days after the end of each calendar semester.
- 3.13 **Evaluation and monitoring.** The PCU will deliver semiannual progress reports to the Bank, indicating the progress achieved in each component and the program's overall performance, based on the indicators set in the Results Framework. Additionally, the borrower will deliver a midterm review prepared by an independent consultant within 90 days after the date on which 50% of the loan resources have been committed, or 30 months have elapsed since the effective date of the loan contract, whichever occurs first. The evaluation reports will include: (i) a description of activities; (ii) updated timelines of physical execution and disbursements; (iii) the degree to which performance targets have been met; (iv) a schedule of activities for the coming semester; (v) a summary of the program's financial execution status and the expected flow of resources for the coming semester; (vi) a section identifying potential developments or events that could jeopardize program execution; and (vii) in the year-end report, the AWP, including the updated procurement plan. In addition, a final program evaluation will be conducted by an independent consulting firm within 90 days after the date on which 90% of the loan resources have been disbursed, addressing, inter alia: (i) the financial execution results for each component; (ii) targets met, based on the agreed performance indicators; and (iii) fulfillment of contractual commitments.
- 3.14 **External audit.** The UGPI will deliver annual audited financial statements on the program during execution. External audits will be performed by independent auditors acceptable to the Bank, in accordance with Bank requirements (documents AF-100 and AF-300), based on terms of reference previously approved by the Bank (document AF-400).

**Results Matrix**  
**SOCIAL AND ENVIRONMENTAL PROGRAM FOR THE IGARAPÉS IN MANAUS (PROSAMIM II)**  
**(BR-L1164)**

Objectives of PROSAMIM, Second Loan								
The program's <b>general objective</b> is to help improve the quality of life for inhabitants of the São Raimundo and Educandos igarapé watersheds in the city of Manaus.								
The program's <b>purpose</b> is to help solve environmental, urban, housing, and social problems affecting the inhabitants of the São Raimundo and Educandos-Quarenta igarapé watersheds by executing works in the Quarenta, Bombeamento and Franco igarapés; and to implement social and institutional sustainability actions.								
Results Matrix								
Aims	Baseline	2006	2008	Final target		Comments		
Improvement of water quality in the Educandos igarapé	240mg/l 3.1mg/l 2,400MPN/100ml 152.3ml/l O <sup>2</sup>		50mg/l 3.8mg/l 1,200MPN/100ml 152.3ml/l O <sup>2</sup>	20mg/l 4.2mg/l 1,000mpn/100ml 75.0ml/l O <sup>2</sup>		BOD5 OD Mean probable number (MPN) of fecal coliforms COD		
Decrease in the population affected by floods	15,500		15,500	0		Persons affected by flooding, by location and period		
Decrease in incidence of severe diarrhea	57/10,000		53/10,000	21/10,000		Actual cases		
Reduction in number of dwellings located in squatter settlements	84,500		84,500	80,500		Percentage reduction (5%)		
Component	Baseline 31 Dec 2007	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Comments
<b>1. Works</b>								
<b>Outputs:</b> Environmental, urban planning, and housing improvements in the Quarenta, Bombeamento and Franco igarapés								
a. Macro- and microdrainage	3,113	3,465	2,886	3,730	1,541	76	11,699	Meters of macro- and microdrainage implemented
b. Urban reorganization	0	1,119	932	1,205	498	25	3,779	Urban properties titled and registered
c. Resettlement	0	1,119	932	1,205	498	25	3,779	Families served by SPR criteria
d. New urban roads	38	5,146	4,287	5,541	2,289	113	17,376	Meters of urban roads built
e. Urban parks	0	7	6	8	3	0	24.6	Ha of parks created
f. Regularization of access to clean water	0	1,164	969	1,253	518	26	3,929	Homes connected
g. Availability of sewer collector network	0	0	1,234	2,057	2,879	2,057	8,226	Percentage of homes connected to sewer system (30% / 29,045)
<b>Intermediate outcomes:</b>	5%	15%	30%	30%	75%	80%	90%	
<b>Final outcomes:</b>	5%	25%	55%	85%	99%	100%	100%	
<b>Main risks</b>								
Urban reorganization.	▪ Legal action to vacate areas							
<b>Management of risks</b>								
Legal action to vacate areas	▪ Negotiate in advance and select areas with least potential for legal actions							



**SOCIAL AND ENVIRONMENTAL PROGRAM FOR THE IGARAPÉS IN MANAUS - PROSAMIM II  
(BR-L1164)**

**PROCUREMENT PLAN**

Reference no.	Description of the contract and estimated cost of procurement	Procurement method	Review (prior or post)	Source of financing and percentage		Prequalification (Yes/No)	Estimated dates		Status (pending, in process, awarded, cancelled)	Comments
				IDB (%)	Local (%)		Publication of specific procurement notice	Completion of contract		
1	<b>1. Goods</b> UGPI: Computer and electronic equipment: microcomputers, printers, scanners, notebooks, UPS, digital camera, plotter, videocamera, and other items. Miscellaneous software. Estimated cost US\$250,000	Pregão Eletrônico	Prior	93	7	No	2008(II)	2008(IV)	Pending	
2	UGPI: Passenger vehicles: automobiles, pickups, and utility vehicles. Estimated cost US\$150,000	Pregão Eletrônico	Prior	93	7	No	2008(II)	2008(IV)	Pending	
3	UGPI: Various items of office furniture. Estimated cost US\$240,000	Pregão Eletrônico	Prior	93	7	No	2008(II)	2008(IV)	Pending	
4	UGPI: Procurement of equipment for environmental monitoring activities. Estimated cost US\$20,000,000	Pregão Eletrônico	Prior	93	7	No	2008(II)	2008(III)	Pending	
5	<b>2. Works</b> Sanitation infrastructure, macro- and microdrainage, urban reorganization and resettlement, urban parks and roads in the areas of the Quarenta igarapé from Maués Avenue Bridge to Rodrigo Otávio Avenue. Estimated cost US\$114,637,000	ICB	Prior	98	2	No	2008(III)	2012(IV)	Pending	Publication in United Nations <i>Development Business</i> (UNDB). Post-qualification.

Reference no.	Description of the contract and estimated cost of procurement	Procurement method	Review (prior or post)	Source of financing and percentage		Prequalification (Yes/No)	Estimated dates		Status (pending, in process, awarded, cancelled)	Comments
				IDB (%)	Local (%)		Publication of specific procurement notice	Completion of contract		
6	Infrastructure at Foz do Educandos. Estimated cost US\$37,447,000	ICB	Prior	98	2	No	2009(II)	2010(IV)	Pending	Publication in UNDB. Post-qualification.
7	Infrastructure in the São Raimundo extended triangle. Estimated cost US\$3,627,000	NCB	Prior	98	2	No	2009(II)	2009(I)	Pending	Postqualification
8	<b>3. Nonconsulting services</b> UGPI/PTSSA: Organization and holding of workshops and meetings with community members. Estimated cost US\$835,000	ICB	Prior	95	5	No	2008(III)	2010(IV)	Pending	Publication in UNDB
9	UGPI/PTSSA: Organization and holding of environmental and health education workshops and meetings. Estimated cost US\$513,000	ICB	Prior	95	5	No	2008(II)	2009(IV)	Pending	Publication in UNDB
10	UGPI/PTSSA: Design and printing of instructional materials, production of audiovisual materials to be used in resettlement and post-resettlement projects. Estimated cost US\$160,000	NCB	Prior	95	5	No	2008(III)	2010(II)	Pending	
11	UGPI/PCS: Preparation and conduct of the Institutional Campaign, including design, printing of publicity and informational materials. Estimated cost US\$900,000	ICB	Prior	95	5	No	2008(II)	2011(II)	Pending	Publication in UNDB

Reference no.	Description of the contract and estimated cost of procurement	Procurement method	Review (prior or post)	Source of financing and percentage		Prequalification (Yes/No)	Estimated dates		Status (pending, in process, awarded, cancelled)	Comments
				IDB (%)	Local (%)		Publication of specific procurement notice	Completion of contract		
12	Organization and holding of events. Estimated cost US\$15,000	S	Prior	95	5	No	2008(II)	2010(I)	Pending	
13	<b>4. Consulting services</b> Consulting services for the provision of courses, training, and other activities. Estimated cost US\$15,000	QBS	Prior	95	5	No	2008(II)	2010(I)	Pending	
14	UGPI: Program audit. Estimated cost US\$375,000	QCBS	Prior	95	5	No	2008(III)	2013(III)	Pending	
15	UGPI: Preparation of the final design for the Quarenta igarapé from Maués Avenue Bridge to Rodrigo Otávio Avenue. Estimated cost US\$2,084,000	QCBS	Prior	95	5	No	2008(II)	2010(IV)	Pending	Publication in UNDB
16	UGPI: Preparation of the advanced basic design for Foz do Educandos. Estimated cost US\$1,302,000	QCBS	Prior	95	5	No	2008(II)	2009(I)	Pending	Publication in UNDB
17	UGPI: Preparation of final design for Foz do Educandos. Estimated cost US\$1,033,000	QCBS	Prior	95	5	No	2009(I)	2010(III)	Pending	Publication in UNDB
18	UGPI: Studies and projects for the São Raimundo watershed (including the advanced basic design for the extended triangle) and the final design for the extended triangle of the São Raimundo watershed. Estimated cost US\$6,590,000	QCBS	Prior	95	5	No	2008(II)	2009(I)	Pending	Publication in UNDB

Reference no.	Description of the contract and estimated cost of procurement	Procurement method	Review (prior or post)	Source of financing and percentage		Prequalification (Yes/No)	Estimated dates		Status (pending, in process, awarded, cancelled)	Comments
				IDB (%)	Local (%)		Publication of specific procurement notice	Completion of contract		
19	UGPI: Assistance for executive coordination of the UGPI in strategic and programmatic aspects of financial/institutional issues. Estimated cost US\$120,000	IC	Prior	95	5	No	2008(III)	2009(II)	Pending	
20	UGPI: Environmental assessment studies and projects in the urban watersheds of Manaus Estimated cost: US\$130,000	QBS	Prior	95	5	No	2008(III)	2009(II)	Pending	
21	UGPI: Technical training course for executing agency staff. Estimated cost US\$100,000	QBS	Post	95	5	No	2008(III)	2009(IV)	Pending	

Notes:

- 1 UGPI Management Unit of the Social and Environmental Program for the Igarapés in Manaus (PROSAMIM)  
PGAS PROSAMIM Environmental and Social Management Plan  
PTSSA Environmental Sustainability and Social Work Plan  
PCS Public awareness campaign
- 2 The acronyms of the procurement methods to be used have the following meanings:  
ICB International competitive bidding  
NCB National competitive bidding  
S Shopping  
QCBS Quality- and cost-based selection  
QBS Quality-based selection  
DC Direct contracting  
IC Individual consultant selection
- 3 Exchange rate: US\$1.00 = R\$1.75

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/08

Brazil. Loan \_\_\_/OC-BR to the State of Amazonas  
Social and Environmental Program  
for the Igarapés in Manaus  
PROSAMIM II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the State of Amazonas, as Borrower, and with the Federative Republic of Brazil, as Guarantor, for the purpose of granting the former a financing to cooperate in the execution of the social and environmental program for the igarapés in Manaus – PROSAMIM II. Such financing will be for an amount of up to US\$154,000,000 from the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.