

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

Report No.: AB2346

Project Name	BR Municipal APL1: Cubatao – Guara Vermelho Project
Region	LATIN AMERICA AND CARIBBEAN
Sector	General water, sanitation and flood protection sector (100%)
Project ID	P095013
Borrower(s)	Municipality of Cubatao
Implementing Agency	Planning Secretariat Paco Municipal Piacaguera Praca dos Emancipadores Sao Paulo Brazil 11510-900 upp@cubatao.sp.gov.br
Environment Category	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined)
Safeguard Classification	<input checked="" type="checkbox"/> S ₁ <input type="checkbox"/> S ₂ <input type="checkbox"/> S ₃ <input type="checkbox"/> S _F <input type="checkbox"/> TBD (to be determined)
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1. Country and Sector Background

The Guará Vermelho Project is embedded within a broader program of development for the State of São Paulo's Baixada Santista Metropolitan Area (BSMA). The BSMA encompasses 1.4 million people in nine municipalities and includes a large concentration of both public and private investments developed around key strategic sectors, including logistics, petrochemicals, steel, energy and tourism. These are centered on the expansive Port of Santos, a 7.7 million m² infrastructural network of highways, railroads and pipelines that account for 30% of Brazil's trade balance as well as most of that from Paraguay and Bolivia. Due to the BSMA's natural and economic attributes, the three levels of government— federal, state and municipal – each have a critical role to play in the regional development dynamics. Federal and state government involvement is particularly focused on the logistic and the environmental sectors.

Given the strategic importance of the BSMA's to Brazil's national economic development prospects, the federal government, jointly with the state and municipal governments, have embarked upon an initiative to develop appropriate institutional arrangements aimed at strengthening vertical governmental coordination in the BSMA. The goal of this initiative is to support coordination of policy and development objectives among the three levels of government and their respective sectoral policies to ensure convergence and optimize synergies that will facilitate the alignment of sectoral interventions in both time and space. The envisaged

overarching result is to improve efficiency in implementation of the public sector's policies and development strategies through a better definition of federal, state and municipal priorities in the BSMA. A common priority is the alignment of policies to support the continued growth of the already significant private sector. The "Pacto de Gestão Territorial Integrada" has been adopted as the institutional management mechanism. The Pacto was defined under the "Plano Plurianual (PPA)" Law to foster the conciliation of interests of different territorial units – macro-regional, state, sub-regional, municipal – and improve the effectiveness of shared policies aimed at national and regional development.

The emerging consensus and envisaged arrangements for this inter-governmental initiative anticipate a strategic role for the Bank both in the financing of investments and in providing technical assistance to address systemic bottlenecks and support sustainable, long-term development. Cubatão represents one of a number of potential access points for the Bank within this larger initiative for the BSMA, which include direct financing to municipal governments as well as downstream opportunities in logistics, transport, port, industrial activities and financing reforms. Within this broader context of the BSMA, the Guar Vermelho Project will focus on supporting local and regional development through a number of specific interventions in the Municipality of Cubato. These will be primarily focused toward improving the quality of life in the Vila dos Pescadores through a resettlement program. Cubato is one of Brazil's most economically competitive municipalities and one of ten municipalities contributing 25% of Brazil's industrial output. The Cubato Municipality Industrial Area (CMIA) includes more than 135 different petrochemical, steel and associated industries. The CMIA and residential areas are confined to only 30%¹ of the municipal territory and yet the CMIA contributes more than 5% of Brazil's GDP.

The scarcity of suitable land within the municipality imposes severe spatial constraints on urban and industrial expansion, substantially raising the demand for land and its value, while the challenges of land planning and policy are further amplified by conflicting social and environmental demands. Despite low-levels of population growth over the past two decades, the challenge of long-term social stability is to ensure environmental sustainability in meeting the needs of over 45,000 low-income people who have migrated to Cubato in search of job opportunities within the industrial sector and BSMA. Unable to enter into the stressed formal housing market, many of these low-income migrants have invaded publicly owned environmentally-sensitive and protected areas, which are not subject to strict supervision as are the private areas. The impacts associated with these informal urban developments prompted the *Ministerio Publico*, an independent oversight body, to sue the PMC for contravening environmental legislation. Resolving the complexities of municipal management in Cubato and the broader BSMA is further complicated due to numerous institutional constraints, including overlapping territorial mandates, differing local, state and federal priorities, and fragile fiscal, administrative and management systems. The framework for addressing these complexities is structured around the four thematic priorities of the Bank's Municipal and City Strategy for Brazil described in more detail below.

¹ Almost 70% of Cubato's territory constitutes steep mountains and mangrove classified as sensitive environmental areas and converted in state parks and permanently protected areas.

Addressing Competitiveness in Cubatão requires measures to ensure continued improvements in municipal planning and governance, finance and fiscal management in order to create space for supporting equitable and sustainable economic expansion. Given Cubatão's proximity to the Port of Santos, its industrial output and vast network of infrastructure, it is very attractive to strategic economic investments. The industrial, port and logistic sectors have committed to continued investments and given historical patterns of development within the BSMA, the little land available within the BSMA for industrial expansion is situated within Cubatão. However, this expansion is subject to strict restrictions on industrial emissions resulting from the air quality controls imposed after the 1980's when Cubatão was renowned internationally for one of the world's worst industrial pollution catastrophes. As the legislation does not allow for increasing the current industrial emission levels, industrial expansion is possible only through cleaner industries that require significant technological investments or re-orientation of the industrial sector to low emission industries. The port and logistic sectors are also extremely interested in using waterfront land along the river and in the Santos Estuary to connect industries in Cubatão with the Port of Santos. There are no other lands available with such strategic positioning. However, these areas fall under the category of permanently protected environmental areas and are thus not available for formal industrial and manufacturing development. Addressing Cubatão's competitiveness implies exploring alternatives, including land options, for allowing additional investments for expansion of industrial and port assets. To this end, Cubatão firmly embraces the partnership with the other municipalities sharing the estuary of Santos. Through this alliance, they envisage negotiating with the environmental sector a more strategic vision for the estuary that explores synergies to maximize both environmental and economic benefits.

Addressing Creditworthiness in Cubatão similarly requires support to strategic planning, maintaining fiscal sustainability and improving the efficiency of resource allocations. While Cubatão has a fiscally sound situation, supporting public sector improvement gains comprises addressing issues such as (i) efficiency and modernization of local revenue collection, (ii) enhancement of the municipal judiciary and debt management departments, (iii) strengthening control of personnel expenditures, (iv) strengthening municipal planning, budgeting and financial execution capacity, and (v) strengthening the audit and internal controls units. As Brazil moves toward a capital market for municipal financing, ensuring the creditworthiness of municipalities such as Cubatão is also essential to allow them to access long term financing lines currently extremely scarce for the public sector.

Addressing Service Delivery in Cubatão is more complicated given the illegal occupation of land by the poorest inhabitants of Cubatão. Within the formal urban area, the quality of urban services is similar on par with the average for the State of São Paulo which is considered universal. However, the coverage and quality of service in the 27 informal urban settlements is extremely poor. While population growth is considered to be low, the municipality needs to address systemic issues pertaining to these informal settlements in environmentally protected areas constituted of mangroves and steep hillsides and has limited territory available for further formal urban development. The limited land available is predominantly private property and expensive. Expropriating private land in Cubatão is a very sensitive issue since most of the municipal debt is consequence of "*precatórios*"². Poor coverage and service are complicated by (i) difficulties in

² *Precatórios*: debt securities or bonds paid in lieu of compensation awarded against government entities often associated with grievances related to the expropriation of land, unfair dismissal etc.

addressing land tenure issues and environmental regulations, (ii) high costs of expanding infrastructure to mangrove and steep hillside areas, and (iii) the lack of affordable land within the formal urban area to resettle those living in informal settlements.

Ensuring Cities as Partners is central to the continued growth of Cubatão, the BSMA region and its contribution to the national economic prospects. Although discrete entities, the economies of municipalities within the BSMA are fully integrated and dependent upon the economic dynamics of the broader BSMA. For example, almost 50% of the significant tax revenues generated from industries within the PMC are expended on personnel. The majority of this revenue goes to those who live in adjacent cities, such as Santos, which are situated by the sea with developed commercial sectors, as well as entertainment, restaurants, hotels and tourism. This net flow of revenues out of the PMC undermines local commercial and economic development. However, Cubatão's competitive advantage is in turn linked to its favorable position in the estuary in relation to the Port of Santos and the PMC relies on adjacent municipal, state and federal infrastructure as well as the involvement of the private sector to facilitate import and export activities. Given these inter-dependencies and development constraints within the BSMA, the PMC firmly embraced the "Pacto" as a promising mechanism capable of addressing the regional issues and opportunities to explore potential synergies. These relate primarily to a lack of coordination and alignment among federal, state and municipal priorities for the region which has resulted in significant bottlenecks, mainly institutional, limiting regional development and private sector involvement.

The proposed Cubatão's Guar Vermelho Project objectives and components fully reflect the Bank Municipal and City Strategy for Brazil, the Brazilian inter-governmental priorities for the region and the requirements outlined in the verdict against the PMC in favor of the *Ministerio Publico*. The proposed project components encompass financing of governance strengthening activities and investments addressing critical environmental and social issues. These, along with infrastructure demands, constitute key major challenges and constraints for local and regional development. The proposed investments in the Vila dos Pescadores clearly demonstrate the link between the local and regional development issues. For example, critical segments of the existing cargo railroad system that feed the Port need to be doubled from two to four tracks to meet increasing demand. This railroad, however, runs directly through the Vila dos Pescadores. This informal settlement provides housing for 3,100 families, 80% of them living in extremely precarious stilt houses built of wood and cardboard over the mangroves. While expanding the railroad is one of the key actions under the proposed Port of Santos expansion, it cannot be expanded without significant resettlement along the railroad track. Currently, each day, 30 trains of up to 145 freight cars each pass through the informal settlement, competing with high volume pedestrian and vehicular commuter traffic. After the railroad expansion the number of trains would increase to 60 per day. In addition to the expected efficiency gains, doubling the railroad capacity will facilitate several other investment improvements within the BSMA, eliminating the need for cargo rail to pass through the City of Santos and supporting the development of an integrated urban transport system for the BSMA. In addition to supporting increased efficiencies, investments in the Vila dos Pescadores will dramatically improve the quality of life of Cubato's poorest population groups.

2. Objectives

To support the Municipality of Cubatão promote sustainable development by improving the economic investment climate, strengthening municipal finance control mechanisms, and addressing urban informality.

The key PDO outcome indicators for the project include:

- Consistency between Municipal land use and Federal and State Environmental regulations improved;
- Municipal finance control mechanisms strengthened;
- Urban formality standards introduced in Vila dos Pescadores and measured by comparing them to Cubatão formal urban area standards.

3. Rationale for Bank Involvement

The PMC's Guar Vermelho Project is seen as a strategic entry point for a larger regional Bank financed program focusing on metropolitan management and urban transport within the BSMA. This regional program, in support of the government's broader initiative for the BSMA, is being advanced within the context of the Bank's Strategy for Cities and Municipalities in Brazil. It will include definition of boundaries for Bank engagement and potential implications for the lending and AAA, along with a road map of immediate and long-term goals, components and responsibilities.

The Bank is uniquely positioned to provide extensive global experience in support of sector reforms and improved municipal management practices. It can also foster the inclusion of environmental and social safeguards in municipal projects, promoting a holistic approach to municipal planning and investment (integrated investment in infrastructure with social and governance elements such as monitoring and evaluation). In addition, the Bank can encourage systematic fiscal assessment, monitoring and management and facilitate analytical work such as local economic development strategies and social/poverty assessments, all of which expand the focus of municipal development beyond the traditional areas of intervention.

A municipal lending program by the Bank can help lay a foundation for market-based approaches to financing municipal development, as the federal government works towards developing an effective and sustainable municipal credit system. Participation in the Bank program can build confidence and capacity by improving the quality of capital investments, demonstrating how municipalities can manage debt while maintaining their fiscal profiles, and leveraging results through partnerships. The program would seek to demonstrate that significant investments with high returns can be made at the municipal level within a framework of sound fiscal discipline. Participation in the program would help municipalities build their capacity, especially through carrying out the selection, analysis, implementation, and evaluation of investments and making the corresponding provisions for their fiscal sustainability and social and environmental viability.

- The BMLP is focused on key cities having a **common focus on poverty alleviation, urban upgrading and environmental improvement, municipal management, and**

local economic development. These themes have been selected by the federal government and the municipalities as priorities for this first municipal assistance program. The individual projects are to be linked by a knowledge-sharing and policy analysis component at the federal level, which would be supported by one or more separate grants. The details of this Horizontal APL, to which this loan pertains, are described in more detail in Annex 1 and are further articulated in an ‘Umbrella PAD’ for the Brazil Municipal Lending Program Horizontal APL (Report No: 32314 – BR).

Embedded within the context of this larger program, the project builds upon a long history of Bank involvement in the BMSA, through partnerships with the State of São Paulo and previous interventions in Cubatão. During the 1980’s the Bank was an important, neutral facilitator in assisting with reforms aimed at addressing industrial pollution, social development and environmental protection. Through the Bank’s previous engagement, the BSMA has become better positioned to help address the significant institutional complexities that exist and would further benefit from the Bank’s planned intervention to act as the honest broker. The Cubatão project will continue to support the development and strengthening of consensus within the BSMA.

The Guar Vermelho Project will benefit directly from the Banks convening capacity and analytical contributions. The national economic importance of the BSMA, and complex challenges involved in realizing its potential, call for the Bank’s strong analytical, coordination and cross sectoral capacity. In addition to the problem of conflicting government mandates, there is also a notable absence of an institutional forum for resolving inter-related social, economic and environmental problems that characterize the area. The Bank’s convening power provides a foundation for the key stakeholders to negotiate the continued development of the BSMA.

The Bank is also in a position to capitalize on its role as a global knowledge broker by facilitating comparative learning and exchanges among a significant portfolio of urban and environmental projects with municipalities in Brazil. This growing portfolio of projects is contributing to a broad understanding of the issues facing municipalities and the identification of appropriate mechanisms to assist them realize their role in contributing to national objective of socially equitable economic growth and development. Inter-municipal comparisons among projects within the portfolio allow for analyses that will also highlight key differential features and the comparative advantages of individual municipalities. This differentiation will be a key feature as municipalities enter the private markets to access alternative forms of credit.

4. Description

In order to address the identified objectivities, the project is structured in two components, as follows:

Component 1. Sustainable Municipal and Regional Development

1.1. Addressing Competitiveness (US\$ 0.50M):

Through this component, the project would support the municipal government with a strategy and a working plan for addressing the institutional aspects contributing to the increased

difficulties for public and private investments in Cubatão. These consultancy services will include:

(i) **Assessing Consistency Between Municipal and Environmental Regulations:** Current inconsistencies between the municipal land use regulation and the federal and state environmental regulations significantly increase the difficulties for both the public and private sectors to make investments in Cubatão. These inconsistencies will be assessed by consultants with expertise in these topics through a methodology combining technical review and consultation with the stakeholders involved. Based on these assessments and consultations, a proposal would be developed;

(ii) **Supporting Municipal and Environmental Sector Strategic Joint-Programs:** As part of the strategy for improving dialogue with the environmental sector, the project will finance consultancy services to maximize the environmental programs in Cubatão to improve the investment climate. Various environmental mitigation programs are carried out by the private and public sectors in Cubatão in compliance with the Federal and State Environmental License requirements. The impact of these programs can be maximized by further improving their focus and integration. These improvements may also significantly contribute towards facilitating the investment climate in Cubatão. To this end, the project would finance consultancy services to assess these programs and propose a more strategic rationale to guide their objectives and design.

1.2. Addressing Creditworthiness (US\$ 1.65M):

Improving key finance control mechanisms has been identified as a priority by the assessments carried out during the project preparation, as well as by the consultations for the Agenda 21. To this end, the project will finance results-oriented consultant services targeting:

(i) **Municipal Finance Planning and Control Mechanisms including:** consultancy services to develop proposals addressing key actions aimed at improving municipal revenue collection efficiency; strengthening of the control of personnel expenditures; and, strengthening of the municipality's planning, budgeting and financial execution capacity.

(ii) **Institutional Capacity Support:** specialized consultancy services to assist the Municipality in implementing fiduciary and safeguard procedures, and M&E as well as to address complex technical activities involved in planning and works activities included in the proposed Project.

1.3. Ensuring Cities as Partners (US\$ 0.30M):

BSMA Integrated Territorial Management Pact: in close cooperation with other regional stakeholders (BSMA's municipal governments, State of São Paulo Government, Federal Government and private sector, specially industry and port sectors), the project will finance studies and technical tools aimed at supporting regional development. These studies, including a consultation process, will focus on two topics of a broader priority regional development agenda already agreed on by the mentioned regional stakeholders. These two topics directly benefit promoting sustainable development in Cubatão and are:

(i) **Financing the development of Cubatão's strategic environmental assessment to complement the Regional Environmental Assessment on BSMA,** to provide inputs for a regional dialogue involving the federal, state and municipal governments, the private sector and the civil society on a common vision for the BSMA short, medium and long term sustainable development goals;

(ii) Financing the development of a preliminary proposal for an Information Management System including comprehensive and updated information data base on the broad range of requirements and processes for carrying out economic investing in the region aiming at facilitating entrepreneurs decision making with respect to investments in the BSMA.

Component 2. Addressing Urban Informality

2.1. Executive Planning for Addressing Urban Informality in Cubatão (US\$ 0.45M): The project will assist in financing integrated technical inputs, intergovernmental dialogue (Federal, State and Municipal governments) and community participation to develop a proposal providing technical, institutional, legal and financing alternatives to address urban informality in Cubatão, including: (a) review municipal land use regulations to offer low-income housing alternatives within the formal urban area; (b) reaching agreements with the Federal and State governments on environmental priorities toward favoring an optimal use of areas already converted to urban use; (c) agreeing with the State Government on a low-income housing program in conjunction with agreements with the Federal Government to use remnants of federal land (mostly from the privatized Federal Railroad).

2.2. Bringing Urban Formality to Vila dos Pescadores (US\$ 20.77M): This sub-component will finance the execution of the **public infrastructure integrated with activities aimed at bringing urban formality to Vila dos Pescadores (VP)**. To this end, this sub-component includes civil works for building the urban infrastructure and, consultancy services for providing technical support on planning, social development and environmental protection.. The activities included are:

- (a) Adopt in VP an urban regulation complying with the 2006 City of Cubatão Master Plan requirements including the incorporation of VP into the formal city fabric by promoting land tenure regularization, use of appropriate urban parameters, providing appropriate housing to families living in stilt shacks, opening streets, creating recreational areas, providing solutions for local commerce improvements, caring out environmental rehabilitation and protection, transportation solutions, flooding control, and clearing the railroad right of way allowing for expected railroad duplication.
- (b) Finance the detailed engineering designs of the technical solutions to comply with the above.
- (c) Finance social assistance activities to: (i) inform the population about the planning and civil works phases schedules and details; (ii) act as a bridge connecting the population and the several sectoral specialists that will be working in the area; (iii) work closely with that segment of the population to be resettled, providing assistance throughout the resettlement process; (iv) operating the grievance mechanisms, with a permanent social team in the area; (v) implement 'post-works' assistance to the entire community in order to reduce maintenance and repair costs of the infrastructure built.
- (d) Finance the civil works that will provide regular urban services to VP, including earth fill to raise the area above the sea level, clearing the railroad right of way for forthcoming system duplication, water and sanitation, street opening and paving, drainage, recreational areas, space for improving the local commerce, public crèche, community center, bicycle path, overpass over the railroad and the interstate road safely connecting VP to Cubatão's urban

areas, and physical solutions to impede the expansion of VP (local road clearly defining VP's limits).

In addition to the infrastructure and technical support described above, resettlement housing units will be built to replace all the stilt houses. The families living in the stilt houses will be removed and will be compensated with good quality housing. These resettlement housing will be built in the same area currently occupied by stilt houses.

To this end, the **Municipality of Cubatão**, through the proposed project, would finance the **public goods** required in Vila dos Pescadores, including raising the terrain height above the flooding level and the regular urban infrastructure. The **State of São Paulo Housing Company** (CDHU), a public state company, **would finance the construction of the housing units** for to the families currently living in stilt houses in Vila dos Pescadores, through highly subsidized mortgage loans designed to meet the needs of low-income families. **Through this mechanism a public agency is financing private goods for low-income families.**

This partnership in which the municipal government finances the public investments in infrastructure and CDHU finances the investments in housing for the private sector constitutes the regular procedure adopted by CDHU to finance low-income housing. CDHU has similar partnership with most of the 645 municipalities within the State of São Paulo. Mostly through this partnership arrangement, CDHU produces 30,000 housing units per year, about 500 per week through out the municipalities of the State of São Paulo. In particular with the Municipality of Cubatão, CDHU has another similar partnership already under advanced execution phase, through which the public sector is providing the public infrastructure and CDHU is financing the construction of 900 housing units targeting a group of families being resettled from risk prone areas. Following CDHU regular procedures, these housing units are sold through very subsidized mortgage financing policies, property title are provided, and these units become private assets owned by the beneficiary family.

On March 12, 2007, the Municipality of Cubatão and CDHU signed a *Protocolo de Intenções* (Memorandum of Understanding) committing each institutions in financing public infrastructure and housing solutions up to 2,400 housing units, following a schedule of 400 housing units per year during six years. This constitutes the first of a set of two legal documents needed to conclude the required legal arrangements, the second one being a *Convenio* (Co-financing Agreement), which constitute a contract document between public institutions, following the regulations of the Brazilian National Procurement Law 8.666 from June 21, 1993, included in the Brazilian Federal Constitution.

The proposed project will finance the infrastructure in an area which size will allow for constructing 900 housing units, corresponding to US\$15million. The remaining 1,500 housing units (corresponding to US\$25million) will be constructed in the area with infrastructure to be financed by the follow up of the proposed project, as recommended by the Government of the Federative Republic of Brazil, the guarantor.

Strategy for building the infrastructure, the housing units and resettling the families

The infrastructure works and the housing construction will initiate in a 3 hectares area immediately adjacent to Vila dos Pescadores and currently free of occupation. This area is part of the 275 hectares area bought by the Municipality of Cubatão from the Federal Railway. The Vila dos Pescadores constitutes a continuous urban settlement of 23 hectares within the 275 hectares.

Once the housing units built in the 3 hectares would be concluded, a correspondent number of families would be removed from the stilt houses and resettled in these units. Subsequently, the stilt houses will be demolished liberating a new area for initiating the infrastructure works and the housing construction. Following this strategy, the dynamics of the Vila dos Pescadores community will not suffer from disruption and, in addition there will be no need for temporary housing solutions as part of the resettlement operation.

The draft Bank Loan Agreement refers to the agreement between CDHU and the PMC and includes specific provisions to ensure successful implementation under Article IV of the Loan Agreement (Sections 4.01 and 4.02 – Remedies of the Bank).

2.3. Environmental Management and Rehabilitation (US\$ 0.70M): This component will support a consultancy and civil works to: (i) ensure the protection of mangrove habitat; (ii) compliance with the state environmental licenses conditions; and, (iii) an environmental education program.

5. Financing

1 st Phase			2 nd Phase			Total (US\$ million)
PMC	WB	Total	PMC	WB	Total	
9.75	14.65	24.37	8.22	12.33	20.55	44.92

6. Implementation

The Project will be implemented by the Borrower, the Municipality of Cubatão, through a SIL with a sovereign guarantee from the Federative Republic of Brazil. Project implementation will involve the participation of several sectoral secretariats, primarily: infrastructure, social, health, education, finance, and planning. As these secretariats will be responsible for designing and implementing actions in an integrated and timely manner, there is an agreed need for one project manager responsible for coordinating the various sectoral activities. As this function involves coordinating the actions of various municipal secretaries, it was agreed that this project manager should report directly to the mayor. It was also agreed that the project activities (technical, financial management, procurement, safeguards) will be implemented by the relevant municipal secretaries. As the Municipality of Cubatão has no previous experience in implementing a Bank financed project, the secretariats will be supported in executing the project-related financial management, procurement and safeguard issues by a group of experts. A decision regarding the timeframe for this assistance will be subject to project implementation performance. In principal, these experts will provide full assistance during the first two years of implementation with limited inputs in subsequent years. The first two years will concentrate on procurement activities, allowing for consolidation of financial management procedures. Ensuring compliance with environmental and social safeguards will be a major task throughout project implementation, with particular focus on the first two years.

Monitoring and evaluation will be carried out by the Project Coordination Unit which will be constituted by the relevant municipal secretariats. Data for the project's outcome and results will

come from two sources: i) the project's management information system; and, ii) a special monitoring system to capture the comprehensive investments that the project will undertake in Vila dos Pescadores. Through this special monitoring system, a social environmental indicator for Vila dos Pescadores will be employed. This social environmental indicator is currently being implemented in several cities to measure social and environmental conditions in unregulated low income settlements. It monitors 14 parameters including: 1) water supply formal services coverage; 2) sewerage system coverage; 3) solid waste collection coverage; 4) drainage systems coverage; 5) street network coverage; 6) geological and geotechnical safety; 7) population density; 8) energy services coverage; 9) land tenure; 10) street cleaning services; 11) public lighting; 12) areas for community use; 13) income indicator; 14) health indicator; and, 15) education indicator. Currently only a small part of the Vila dos Pescadores benefits from these services. A preliminary baseline data has been defined as part of the project preparation. A detailed baseline will be established in the project's first year of execution.

7. Sustainability

The strong support from the Federal and State governments to actions addressing key development issues in the BSMA constitutes one of the pillars of the proposed project. As a result, one of the main challenges facing the project, the transfer of land title from the Federal Railroad Company to the municipality to accommodate the new housing associated with the Vila dos Pescadores, has already been resolved by the Federal Government. The State Government of São Paulo is also closely supporting the project by: i) proactively discussing the Environmental Assessment ToR and preliminary versions in anticipation of subsequent requests for the state environmental licenses; and, ii) confirming its participation in the project through CDHU. The high investments required in Vila dos Pescadores follow regional standards, where geology entails higher civil works costs in slums and in most formal areas. The proposed project will generate technical, institutional, social and costs parameters replicable in Baixada Santista.

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

Addressing systemic municipal / regional issues: The lack of long-term financing alternatives to the sub-national public sector creates severe obstacles to the use of sectoral credit available to the public sector. Within this context, Bank-financed sub-national projects benefit from a high credibility rate that increases access to alternative sources of funding from other public and private agencies as well as from civil society. Bank involvement is seen to mean that satisfactory technical, institutional and financing arrangements are in place such that many of the largest national financing agencies (CEF, WS&S companies, housing companies, BNDES) seek partnership in these projects. In the case of the BSMA two additional reasons are highlighted by other public and private sector stakeholders, these being development of reliable solutions to address issues of land tenure and environmental licensing.

Cities as partners: The municipalities within the State of São Paulo share a long history of successful partnerships. This is highlighted by the translation of these partnerships into functional working arrangements through municipal consortiums, with 90% of the state's municipalities now engaged in some type of consortium. Most of these are related to service

provision (primarily addressing regional solutions for solid waste disposal) and environmental protection. One example is that of the Bank financed Guarapiranga Project, implemented during the 1990's. This project was an outstanding example of inter-governmental cooperation among four municipalities and several state agencies that worked together toward a common goal of water resources protection. This experience provides a favorable context in support of the participation of the PMC in the BSMA initiative.

Urban resettlement in vertical housing complexes: The Bank financed Guarapiranga Project was a large-scale resettlement program involving low income populations living in extreme risk in the São Paulo metropolitan region. This resettlement program was largely undertaken by CDHU, which built approximately 4,000 resettlement housing units in four different municipalities around the São Paulo metropolitan region to receive families moved from informal settlements. Although the preferred option for individual households was single story housing, the scarcity and high cost of land meant that most of the housing units were offered in five-storey buildings. Vertical housing units, such as those constructed, constitute the most common housing solution in a metropolitan area such as São Paulo, with single family houses seen as a privileged and highly expensive solution. The vertical housing units built under the Bank-financed project are subsequently subject to bi-annual assessments by CDHU. The living standard in these building continues to be infinitely superior to that in the informal settlements. The standard of housing provided by CDHU under the project does not differ from those provided by CDHU to private customers, typically families with a slightly higher income than those relocated from the informal settlements.

Sustainability associated with interventions in informal settlements and urban upgrading projects constitutes a recurrent concern arising primarily from:

(a) Social sustainability: several Brazilian cities already carry out slum upgrading interventions, which invariably requires removing families living under high risk such as flooding and land slide to safer areas. The Bank is involved in many of those including: Curitiba, Salvador, São Paulo, Recife, Belo Horizonte, Teresina, São Luis. Typically, two resettlement alternatives are offered: resettlement houses within the slum perimeter; and, resettlement houses in a new area. Within the slum area, the resettlement houses have about 40m² and the families are entitled to a 20 years right to use permission at no charge. Once the land tenure is regularized, the families will have access to the land and building's title. The resettlement houses built in formal urban areas have also about 40m², but they are financed based on highly subsidized and flexible arrangements designed to meet the low-income families' social and economic profile and the land and building's title is provided as part of the mortgage arrangement. The minimum family income required is equal to 1 minimum wage (~US\$190). No regular employer document is required, just the income information provided by the family itself. For those families perceiving one minimum wage per month, the mortgage monthly payment can not exceed 15% of the family income. Most of the families to be resettled will argue the monthly amount constitutes a burden to the family financial sustainability. They prefer the option of accessing an appropriate housing at no cost. Several studies were carried out on this subject. The main conclusions indicated that the resettlement to an appropriate housing and urban settlement does ensure to the family financial benefits greater than the mortgage cost. The table below summarizes these benefits

taking into account the recent diagnosis studies carried out in Vila dos Pescadores and the lessons learned from other similar interventions.

Cost of living in Vila dos Pescadores	
Without project	With project
<p><u>Losses of investments in housing, furniture, domestic appliances, personal documents, etc. Losses in working and schools days</u></p> <p>(i) land slides and housing collapse caused by inappropriate material and techniques to filling in the mangrove and building the house (ii) houses built in areas subject to frequent flooding aggravated when combined with and sea tide variation (iii) frequent fires caused by inappropriate use of gas stoves, informal power connection, proximity to the industrial gas pipeline burning houses and causing casualties and severe burning injuries (due the inexistence of streets, fire fighters have no access to the houses)</p>	<p><u>Losses in housing, furniture, etc investments avoided</u></p> <p>(i) community investments in housing will be largely compensated by the highly subsidized mortgage financing made available by CDHU to low-income population (ii) risk of land slides, housing collapse, flooding will be eliminated by the appropriate investments in infrastructure and housing units</p>
<p><u>Health problems causing sever productivity losses</u></p> <p>Highly exposed to health problems caused specially by:</p> <p>(i) contamination and other injuries caused by falling into the mangrove bellow the housing in which is dumped all the solid waste and the untreated waste water produced by the 2,700 stilt households; (ii) diseases caused by rats, vipers, and other animals that proliferate in the area, specially during the flooding when they seek for a shelter inside the houses; (iii) water borne diseases, specially affecting the new born; (iv) respiratory diseases caused by the inappropriate housing ventilation and exposure to a highly contaminated environment (v) no access to ambulances</p>	<p><u>Health problems severely reduced</u></p> <p>(i) avoided exposure to health problems caused by water contamination, contact with inappropriate solid waste disposal, contact with harmful animals, lack of housing with appropriate ventilation; (ii) ambulance, fire fighters trucks, solid waste collection with appropriate access to each household</p>
<p><u>Constrains to jobs opportunities and schools</u></p> <p>(i) VP has a high rate of crime and violence leading the potential employer to avoid employees living there (ii) Children from VP go to schools located in other neighborhoods where they suffer from strong discrimination</p>	<p><u>Constrains to a job opportunities and schools avoided</u></p> <p>(i) the proposed investments in VP will dramatically change the settlement urban standard with access to regular urban services, inducing reduction in crime and violence by the presence of public authority in the area through the provision of regular public services (ii) an elementary school will be available and the better environment in VP will gradually reduce the discrimination suffered by the community</p>
<p><u>Extremely high crime and violence rates</u></p> <p>(i) as most of the area within VP can only be accessed through a labyrinth type narrow walkways network, an ideal situation for illegal activities since police, firefighters and ambulance have no access to the houses</p>	<p><u>Reduction in crime and violence rates</u></p> <p>(i) a better urban standard contributes to reduce illegal activities by allowing the appropriate circulation of police cars through the streets network created, the public lightning available and the general presence of governance in the area</p>
<p><u>Precarious access and high cost of urban services</u></p>	<p><u>Access to regular urban services ensured</u></p>

<p>(i) 70% of the households have no access to water, sanitation, drainage, telephone, streets, public lightning, etc. Access to water is irregularly provided by a neighbor located in the 30% higher terrain portion of VP at a higher cost compared to the formal provider;</p> <p>(ii) electricity is accessed through neighbors creating a intricate electrical cable network causing frequent fires and damages to electrical equipments</p> <p>(iii) no fix phone services is available, almost the entire community use pre-paid cell phone at a very high tariffs</p>	<p>(i) water, sanitation, drainage, waste collection, streets, crèches, telephone, elementary school, services, recreational areas, police, firefighters, ambulance regular services will be provided</p> <p>(ii) water and electricity meters will be installed in house, eliminating frequent disputes among neighbors over the water bill</p> <p>(ii) fix phone services will be available to each household, offering a much more affordable communication services than cell phones</p> <p>(iii) internet services will be available through phone or cable connection</p>
<p><u>Housing rights uncertainties</u></p> <p>(i) under the current conditions, VP dwellers can absolutely not have access to formal housing property rights, the living conditions in the area do not comply with any regulation, the land tenure is deeply irregular, and the judicial and environmental sectors block any attempt from the public sector toward carrying out partial improvements in the area</p>	<p><u>Housing title</u></p> <p>(i) the land tenure is regularized, the Federal Railroad sold the land to the Municipality;</p> <p>(ii) the land title is subdivided and transferred to CDHU whose is the resettlement apartments owner</p> <p>(iii) CDHU transfers the title to each family as part of the mortgage arrangements</p>
<p><u>Critically bad environmental conditions</u></p> <p>(i) 70% of the VP has no provision of sanitation, solid waste, street cleaning services, in addition water is contaminated due to the changes in pressure within the pipes, which pulling contaminated water into the pipes;</p> <p>(ii) wastewater and solid waste are dumped below the stilt houses polluting and degrading the mangrove threatening the public health;</p> <p>(iii) the critical environmental conditions deeply depreciates the households investments in the area</p>	<p><u>Environment rehabilitated</u></p> <p>(i) no more sewage, solid waste, urban run off discharged into the mangrove</p> <p>(ii) mangrove vegetation reestablished</p> <p>(iii) recreational area available</p> <p>(iv) urban density reduced to appropriate levels</p> <p>(v) high market value for housing investments</p>

(b) Financial sustainability: the investments required for upgrading of informal settlements are high and substantially above the average amount required in formal urban areas, which benefit from urban planning and appropriate topographical conditions for development. In the case of the proposed project in Cubatão the investments required are well above the average for urban upgrading projects due to the number of people that must be resettled (80%) and the terrain that will require significant preparatory works. Cost recovery policies associated with such interventions typically include large subsidies for investments in both housing and infrastructure services. For resettlement housing in low income areas the subsidy may be as high as 70%. WS&S services fall under the social tariff which is also highly subsidized. Municipal services (garbage collection and disposal, drainage maintenance, street lightning, cleaning) are to be recovered through local tax revenues. The subsidized costs of the housing and WS&S services will be largely recovered through the billing systems of CDHU and SABESP. Municipal tax revenues depend on the land regularization process, which in the case of Vila dos Pescadores is achievable because land tenure issues are being addressed and CDHU will receive land title as a condition of financing the construction of the housing units.

(b) Operation and maintenance: one of the main complaints from the beneficiaries of urban upgrading projects is the poor quality of infrastructure built and services provided. The

partnership with CDHU and SABESP contributes toward ensuring high quality results. CDHU has already built about 400,000 housing units within the State of São Paulo, the standard of which is highly appreciated by the beneficiaries and respected by urban specialists. SABESP is also renowned for providing high quality service. Both companies will participate in the technical design phase, providing appropriate standards and approving the detailed engineering designs. These companies will continue to have a presence in the area subsequent to the conclusion of the project. Another key service is waste management and the urban solutions proposed for the Vila dos Pescadores take into account the requirements for allowing operation of an appropriate waste management system. This service will be provided by a private company under a five year contract with the municipality. These services, as well as health, education and recreational activities in Cubatão are of a high standard and these will be extended to the Vila dos Pescadores once appropriate urban infrastructure and assets are in place.

9. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[]
Natural Habitats (OP/BP 4.04)	[X]	[]
Pest Management (OP 4.09)	[]	[X]
Cultural Property (OPN 11.03 , being revised as OP 4.11)	[X]	[]
Involuntary Resettlement (OP/BP 4.12)	[X]	[]
Indigenous Peoples (OP/BP 4.10)	[]	[X]
Forests (OP/BP 4.36)	[]	[X]
Safety of Dams (OP/BP 4.37)	[]	[X]
Projects in Disputed Areas (OP/BP 7.60)*	[]	[X]
Projects on International Waterways (OP/BP 7.50)	[]	[X]

10. List of Factual Technical Documents

- Carta Consulta
- Aide Memoires
- Project Concept Note
- ISDS (Appraisal Stage)
- Marco Ambiental

11. Contact point

Contact: Paula Dias Pini
 Title: Social Development Spec.
 Tel: (202) 458-7842
 Fax: (202) 522-3132

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

Email: Ppini@worldbank.org

12. For more information contact:

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-5454
Fax: (202) 522-1500
Web: <http://www.worldbank.org/infoshop>