

MUNICIPAL DEVELOPMENT PROGRAM FOR PORTO ALEGRE

(BR-0256)

EXECUTIVE SUMMARY

BORROWER: Municipality of Porto Alegre

GUARANTOR: Federative Republic of Brazil

EXECUTING AGENCY: Municipality of Porto Alegre

AMOUNT AND SOURCE: IDB: US\$ 76.5 million (OC)
Local counterpart funding: US\$ 76.5 million
Total: US\$153.0 million

FINANCIAL Amortization period: 20 years
TERMS AND Disbursement period: 5 years
CONDITIONS: Interest rate: variable
Inspection and supervision: 1%
Credit fee: 0.75%
Currency: dollars of the United States of America
(Single Currency Facility)

OBJECTIVES: The objective of the proposed program is to increase the well-being of the inhabitants of Porto Alegre by: (i) making the municipal administration more efficient in the performance of its functions; (ii) improving the efficiency of municipal agencies providing sanitation, environmental control and road maintenance and safety services; and (iii) carrying out works to upgrade roads and other basic infrastructure in low-income neighborhoods.

DESCRIPTION: To achieve these objectives, three subprograms will be undertaken:

1. Administrative modernization (US\$10.1 million)

This subprogram will support efforts by the Municipality of Porto Alegre (PMPA) to achieve greater efficiency in delivering services to the community, and in the management of its financial resources. The increase in efficiency will be achieved by reorganizing working methods and procedures, introducing new technology and strengthening human resources. In addition, special attention will be given under this subprogram to

improving the municipality's tax and financial administration.

2. Institutional strengthening (US\$5.25 million)

This subprogram will finance activities to strengthen the municipal agencies involved in delivering sanitation, environmental and road maintenance and safety services. It will also provide financing for drawing up the bicycle path master plan.

3. Urban infrastructure (US\$79 million)

This subprogram includes establishment of a third direct north-south access route in the city Perimetral III, with bus-only lanes and totaling 12.3 km in length. It will also provide for upgrading basic infrastructure in low-income neighborhoods through construction of storm drainage, water supply and (in some cases) sewerage systems, as well as paving of streets selected by the community.

THE BANK'S
COUNTRY AND
SECTOR STRATEGY:

The Bank's strategy and operations program for Brazil during the period 1995-1997 is entirely consistent with the objectives of the Eighth Replenishment, and with the systematic approach adopted by the government in its efforts to eliminate the causes (and minimize some of the social consequences) of chronic inflation and address the need for further modernization of the economy. The main components of the Bank's strategy emphasize the need to: (i) promote public sector reform and modernization at the national and subnational levels; (ii) further the process of opening up the economy by modernizing the productive sectors and supporting initiatives to reduce the cost of doing business in Brazil by rehabilitating and upgrading the country's transportation infrastructure and port facilities; and (iii) eliminate socioeconomic disparities and reduce poverty through more effective public spending and better targeting of social programs. To this end, support will be given continue decentralizing the delivery of social services, in part by forming more partnerships with local communities and civil society. At the same time, the present strategy represents a continuation of the Bank's traditional emphasis on basic sanitation and the environment.

ENVIRONMENT AND
SOCIAL IMPACT:

The Environmental and Social Impact Report (ESIR) was approved by the CESI on September 12, 1997, and forwarded to the PIC on October 17, 1997. The impact of this type of program is mostly temporary and easily mitigated, mainly through the enforcement of

local legislation and procedures for environmental protection. A document consolidating all the procedures for environmental control applicable to the program will be prepared and included in the bidding documents (paragraph 3.29).

BENEFITS:

Improve services for residents without increasing operating costs by: (i) cutting the average time it takes the PMPA to complete five of its most important procedures by at least 50%; (ii) easing the burden on taxpayers by introducing electronic methods of filing; and (iii) making it easier for municipal service providers to collect charges for services rendered.

Make more efficient use of public resources by reducing the operating costs of the municipal administration by 5%-10% and increasing tax revenues by 10%-15%.

Increase the efficiency of the agencies providing basic sanitation, environmental control, and road maintenance and safety services through institutional strengthening activities. By the end of the program execution period, it is expected that: (i) the Municipal Department of Water and Sewerage (DMAE) will have increased the number of customers (for water and sewerage) per employee to 350 and introduced a system for external control of the DMAE; (ii) the Municipal Office of the Environment (SMAM) will be monitoring the 150 industrial establishments with the highest pollution potential, and will be operating under its own resources and with the equipment needed to carry out its duties; and (iii) the Municipal Office of Works and Highways (SMOV) will have installed a computerized system for preventive maintenance covering at least 30% of Porto Alegre's roads, and its road safety program will have reduced traffic accidents by at least 20%.

Raise the standard of living and productivity of the population by: (i) reducing north/south crosstown travel time; (ii) promoting the creation of new business centers to cut travel and reduce congestion in the downtown area; (iii) adopting measures to assist bus travelers in reaching their ultimate destination; and (iv) improving conditions for integration of the physical infrastructure and fee schedules of the urban and metropolitan mass transit systems.

Provide basic urban infrastructure, including paved roads, storm drainage, water supply and (in some cases) sanitary sewerage for 7,500 families.

Reduce program costs for upgrading of basic infrastructure by adopting systems to improve planning and minimize costs for construction projects.

RISKS:

The necessary expropriations and resettlement of families could delay execution of the Perimetral works. The creation of specific coordinating units with the resources needed to carry out these tasks should reduce this risk.

**SPECIAL
CONTRACTUAL
CONDITIONS:**

Prior to the first disbursement of the loan, the borrower must submit the following to the Bank: (i) evidence that the Program Coordinating Unit (UCP) has been established and assigned the necessary technical and administrative personnel, according to parameters agreed upon with the Bank (paragraph 3.1 and 3.3); (ii) evidence that the Operating Regulations for the multiple-works component of the program, prepared according to the model previously agreed upon with the Bank, have entered into force (paragraph 3.16); (iii) evidence that an agreement has been signed between with the DMAE establishing the conditions for transfer, operation and maintenance of the water supply and sewerage works by the DMAE, and indicating the obligation of the DMAE to repay them (paragraph 3.17); (iv) evidence that an agreement has been signed with PROCempa establishing the conditions for the procurement of goods and the hiring of consulting services on the part of PROCempa using program resources (paragraph 3.17); and (v) evidence that the final resettlement plan for the families affected by the Perimetral III works has been prepared (paragraph 3.23).

Within six months after signature of the contract, the borrower must submit to the Bank evidence that the consulting firm to carry out the studies and draw up the proposed external control system for the DMAE has been hired (paragraph 3.9).

Within 12 months after signature of the contract, the borrower will submit, to the satisfaction of the Bank: (i) evidence that consulting firms responsible for preparation of the data base of the urban road system and implementation of the road maintenance system have been hired (paragraph 3.6); (ii) a plan for the collection of past due accounts held by the DMAE with the State of Rio Grande do Sul, with

semiannual targets (paragraph 4.11); (iii) the first data collection report, which will include a listing of the data and a detailed description of the procedures to be used for its collection and processing (paragraph 3.38); and (iv) evidence that the Participatory Budget Committees have been apprised of the cost-cutting measures introduced under the projects to upgrade basic infrastructure (paragraph 5.14).

Within 30 months after signature of the contract, the borrower must submit, to the satisfaction of the Bank evidence that: (i) the external control system for the DMAE has been introduced (paragraph 3.9); and (ii) the georeferenced data base of the road system and the preventive road maintenance system have been implemented. Commitment of the resources of the third tranche for the Perimetral and ancillary works will not be authorized until this condition has been satisfied (paragraph 3.6).

Within 42 months after signature of the loan contract, the borrower will submit evidence, to the satisfaction of the Bank, that the computerized road maintenance system has been implemented.

Disbursement of resources for construction of the Perimetral will be subject to submittal of the following by the borrower to the Bank: (i) evidence that the consulting firm to support the SMOV in the supervision of the Perimetral works has been hired in accordance with terms of reference previously agreed upon with the Bank (paragraph 3.5); (ii) a report from the Municipal Council on Historical and Cultural Heritage (COMPHAC) indicating its recommendations for preservation of six locations identified as possible historical sites (paragraph 3.19); (iii) evidence that agreements have been signed between the municipality and the state, and between the municipality and the federal government, establishing conditions for the transfer of land owned by the state or federal government and required for construction of the Perimetral (paragraph 3.19); and (iv) evidence that the borrower is in legal possession of the land to be used for resettlement of low-income families affected by the Perimetral (paragraph 3.23).

Before issuing calls for bids on any works project, the borrower must: (i) demonstrate that it is in legal possession of the land on which the construction will be carried out and that the land is available for moves to begin (paragraph 3.20); and

(ii) draw up and submit to the satisfaction of the Bank a document listing the environmental controls and procedures it will follow to mitigate any adverse environmental impact during construction works carried out under this program, which document will be included in the bidding documents (paragraph 3.30).

Physical initiation of the multiple-works projects to upgrade basic infrastructure must take place within a period of 48 months following signature of the loan contract (paragraph 3.25).

The borrower has requested that US\$4 million in expenses incurred up to 18 months prior to approval of the operation by the Board of Executive Directors for the purchase of computer equipment and programs be recognized as part of local counterpart funding. The project team has reviewed the procedures followed and recommends that this request be granted (paragraph 3.27).

Within 30 months after the effective date of the loan contract, or once 50% of the program resources have been committed, whichever occurs first, the Bank will conduct a mid-term review mission. The review will be based on the semiannual reports submitted by the PMPA, achievement of the performance indicators, and the progress made in the implementation of the preventive road maintenance system. Should it be ascertained that satisfactory progress has not been made, the Bank and the PMPA will agree on the necessary measures and adjustments and on a timetable for their implementation.

**POVERTY-TARGETING
AND SOCIAL
CRITERIA:**

This project does not qualify as addressing social equity and poverty reduction according to the Eighth Replenishment document (AB-1704, paragraph 2.13 and paragraph 2.15), since less than 50% of its beneficiaries will be members of low-income groups.

**EXCEPTIONS TO
BANK POLICY:**

At the request of the Government of Brazil, the guarantee contract to be signed for this program will not include a guarantee by the federal government to provide local counterpart resources or to fulfill any obligations undertaken by the borrower that do not fall within the official purview of other than those assigned to the federal government.

This decision was based on provisions of the Constitution and legislation of Brazil regarding government policy aimed at bringing order to public spending. The financial analysis carried out shows

that the borrower has sufficient financial capacity to supply the counterpart resources necessary for proper execution of the program.

**PROCUREMENT
OF GOODS, HIRING
OF CONSULTING
SERVICES, AND
AWARDING OF
CONSTRUCTION
CONTRACTS:**

The Bank's current policy on the procurement of goods and the awarding of contract for works and consulting services to be financed with program resources will be followed. Where proceeds from the IDB loan are used, international competitive bidding will be required whenever the value of goods or services to be procured is equal to or greater than: US\$5 million for works, US\$350,000 for goods, and US\$200,000 for consulting services.

I. FRAME OF REFERENCE

A. Background

- 1.1 Porto Alegre is the capital and main city in the state of Rio Grande do Sul. It is also the eighth largest city in Brazil, and its 1.3-million inhabitants account for 13% of the state's total population and 40% of the population of the Porto Alegre Metropolitan Area (which includes 22 neighboring municipalities). During the period 1970-1996, the municipality's population grew by 40%. Currently, Porto Alegre is the primary center for services in the state and in southern Brazil in general. Porto Alegre contributes an estimated 20% of the state's GDP, and its location gives the municipality strategic importance in the context of MERCOSUR.
- 1.2 During the 1980s, the municipality's limited capacity for investment led to unmet demand for public services, especially among the poorest segment of the population. It should be noted that in 1989, 98% of the municipality's current revenues were used to cover payroll, and the fiscal deficit for that year was equivalent to 36% of the annual budget. The Municipality of Porto Alegre (PMPA) has since taken steps to increase tax revenues and control costs that have restored its investment capacity. Among the most important measures was to reorganize the way municipal property taxes and the tax on services are calculated and collected. In addition, the municipality introduced a policy of limiting new hires in the public service to a small number of areas such as education and health.
- 1.3 The PMPA has taken a number of steps to reduce costs and improve the delivery of services, including: outsourcing of various services, such as urban road maintenance and the pumping (drainage) system, garbage collection, street cleaning and transportation for municipal officials, through competitive bidding; and partnerships with the community for the provision of certain services such as pre school education and literacy programs for adults. The PMPA's payroll costs now represent 50% of current revenues, and the municipality has averaged annual investments of approximately US\$50 million over the past six years.
- 1.4 Another measure which had a major impact is the introduction of the so-called "participatory budgeting" (OP) system, under which all of the municipality's investments are discussed and their order of priority determined by the community (see paragraphs 1.10-1.13). Moreover, use of this procedure has led the public to begin demanding greater efficiency and quality in the services provided by the PMPA. Porto Alegre has in fact become a benchmark for the rest of the nation owing to the success obtained with the first round of changes to its municipal administration, particularly its use of community participation to set priorities in investments and

fiscal administration. Many other municipalities in Brazil, and even in other countries (some 80 in 1995/1996) have sent delegations to visit Porto Alegre and see for themselves the different means of administration adopted by the PMPA.

- 1.5 The proposed program will satisfy the most important demands raised in the OP process by funding: (i) the works projects assigned the highest priority by the community, namely those of Perimetral III set forth in the Urban Development Master Plan (PDDU) drawn up for the municipality in 1971 and ratified in amended form in 1996, and deemed essential for decentralization of the city; (ii) the type of local investment most in demand among the communities (upgrading of basic infrastructure); and (iii) a second round of activities aimed at improving the quality of services and assistance to the public (institutional strengthening and administrative modernization).

B. Institutional, fiscal and administrative situation

- 1.6 Beginning with the stabilization of the economy in 1995, the fruits of the PMPA's efforts to increase tax revenues have become increasingly obvious. Despite the fact that 1995 and 1996 were marked by low growth in production and rising unemployment in Brazil, both factors which adversely affect public finances, through more efficient fiscal administration, the PMPA has managed to achieve a real rise of approximately 45% in tax revenues compared to 1994. The consensus is that there is room for increasing municipal tax proceeds even further, however, especially through the urban real estate and property tax (IPTU).
- 1.7 These results, which have made it possible to balance the municipality's budget and increase levels of investment in high-priority areas, have been achieved mainly through the measures taken by the PMPA to strengthen its fiscal administration. The municipality has focused on modernizing its working methods, simplifying procedures, introducing programs to combat tax evasion, and taking steps to improve the management and control of public spending.
- 1.8 However, weaknesses persist in terms of the organizational structure, human resources, technology and legal matters, preventing the municipality from improving tax enforcement and tightening control of public spending. For example, identifying taxpayers in the multiplicity of tax registers remains a cumbersome task; financial management and administration is not integrated with the budget and accounting systems; tax laws, having been developed over many years, are widely scattered making comprehension and analysis difficult; and debt collection and action under administrative law are not managed jointly with the tax collection system, leading to uncertainty in their controls.
- 1.9 Despite greater productivity in the delivery of municipal services, the deficiencies that persist slow administrative processing which

involves an excessive number of steps. As a consequence, in 1995 fully 42% of the 168,000 administrative procedures carried out by the administration took over 60 days to complete, and each year the backlog of unattended cases grows higher (by 1995 the total had reached 215,000). The antiquated computer system does not have the capacity or flexibility to handle the multiple needs of the administration. The municipality's general auditing department is poorly equipped and designed mainly to examine administrative formalities, and therefore will require strengthening to augment its capacity to provide support for the management process of the administration.

C. Participatory Budgeting

- 1.10 In order to improve the targeting of municipal spending, ensure greater transparency in budget preparation, and incorporate the needs perceived by the community in 1989, the municipal officials created an innovative mechanism known as "participatory budgeting" (*orçamento participativo* or OP), and which allows the general population to take part in assigning priorities and carrying out public investments. To this end, the city was divided into 16 district based on cultural and socioeconomic affinities, and a committee was formed in each district to discuss and prioritize works and services of a local nature. Starting in 1994, a new feature was added to the OP process with the creation of five sector committees. 1/ The committees meet to discuss sector guidelines, priorities and policies affecting services and structural works in the municipality.
- 1.11 OP meetings are held virtually year-round. The series begins in March when the criteria and methods to be used in preparing the budget proposal for the following year are determined by the Participatory Budgeting Council (COP), which is made up of representatives elected from the 16 districts (two per district), plus two representatives each from the five sector committees. A first round of regular meetings is held in which municipal officials review the investment plan for the preceding year and report on progress made in the execution of the current plan. At these meetings, the community makes its own assessment of how well these plans are being carried out. The criteria and methods for preparing the budget proposal for the coming year are also presented and discussed.
- 1.12 At mid-year, district plenary sessions and sector committee meetings are held to present the demands and priorities of the community and to elect representatives to sit on the COP. At this time, municipal officials present an estimate of current income and

1/ Health and social welfare; education, culture and recreation; economic development; city organization, urban development and the environment; and transportation and traffic.

expenditures for the next year. Once the plenary sessions have been held, the municipality must reconcile the demands of the citizenry with institutional requirements, and then prepare a draft budget proposal to be discussed and approved by the COP. Thus, the population's requirements will be balanced against the resources available to the municipality, and on this basis a final version of the budget proposal will be drawn up, including programming of regional 2/ and sector works, to be forwarded to the Municipal Assembly for approval.

- 1.13 The municipal executive provides all the support that the community needs during the process of discussion and preparation of the OP, including the provision of information, specialized technical services, etc. Supervision of the works carried out by the work committees of the OP have helped lower construction costs to ensure respect for deadlines and costs quoted by contractors. In 1996, close to 20,000 individuals from the various sectors of civil society participated in OP meetings. All municipal investments are now prioritized through the OP process.

D. Municipal transportation sector

- 1.14 In the last 15 years, the PMPA has made a determined effort to improve vehicular traffic in the city, emphasizing mass transit by establishing special bus corridors and bus-only lanes on those routes with the heaviest passenger traffic. Mass transit in Porto Alegre is provided by one state-owned enterprise and 13 private concessionaires which transport some 1.2 million passengers per day. The metropolitan transit system consists of 338 bus lines and an urban rail line, which together carry close to 700,000 passengers/day. Rapid population growth in the metropolitan area, with heavy concentration of economic activity (especially trade and services) in the city of Porto Alegre has led to a gradual increase in demand for intra-metropolitan transportation and resultant overloading of the existing system. The system currently absorbs 53% of the passenger trips in the area, and it is estimated that this figure could be increased through the adoption of a new operating model for the public transportation system.
- 1.15 Because Porto Alegre is a highly centralized city with a single business core in which a large part of its trade and services are concentrated, the downtown area suffers from heavy congestion, which adversely affects the economic activities and quality of life of those who reside or work in the area, or have to travel through it. It is estimated that 90% of persons using the mass transit system must pass through the downtown core of Porto Alegre, and of these close to 20% continue to other districts of the city. Among

2/ The resources are allocated and priorities assigned according to three criteria: (i) lack of services or infrastructure; (ii) total population of the region; and (iii) priority set by the region.

the measures recommended by municipal authorities as medium to long-term solutions for this situation are the following:

- a. "Decentralize" the city by creating business subcenters outside the downtown core in areas approved by the PDDU (see paragraph 1.5). The plan recommends giving priority to building the Perimetral III by widening and improving the existing road.
 - b. Introduce a new model of operations for the mass transit system, with interconnection of the urban and metropolitan lines through bus transfer terminals, standardization of fares, utilization of larger capacity (articulated) buses, and computerized monitoring of vehicles. The Perimetral will help connect the city with the new Porto Alegre transportation center by giving rapid access to the metropolitan train station, the airport (which is under expansion) and the intercity bus station scheduled for construction in the medium term.
- 1.16 To improve the mass transit system, the municipality, with the help of private enterprise, recently installed the computerized bus monitoring system (SOMA) as a management tool and to provide continuous monitoring of the service. In cooperation with private mass transit concession holders, it is also carrying out a project entitled "reorganization and modernization of the north-northeast corridor" under which the operations system will be redesigned, with the construction of loading and unloading platforms for passengers, and improvement and expansion of bus-only routes. This project, which will enhance the convenience and speed of bus traffic in the area, has a total cost of US\$40 million and is being financed through the National Economic and Social Development Bank (BNDES). The PMPA will provide US\$16 million of this total, and the other US\$24 million will be the responsibility of the private concessionaires. The reformulated Perimetral III project, under which, at the Bank's suggestion, priority has been given to bus traffic through use of bus-only lanes, and a feasibility study carried out, has proven a viable project and will permit the PMPA to ensure the success of the new model of operations for its public transportation system (see paragraph 1.15b).

1. Highway maintenance

- 1.17 The Street Maintenance Unit of the Municipal Office of Works and Roads (GCVU/SMOV) is responsible for maintaining the PMPA's 2,050 km of road. Currently, most of the work done by the GCVU/SMOV comes under the heading of corrective maintenance. In 1994, the municipality launched a program to outsource its street maintenance services, as a result of which most of its projects for repair and maintenance of flexible pavement are carried out by private contractors (close to 60%), while work on unpaved roads is still be done primarily on force account by the GCVU/SMOV (roughly

85%). The GCVU/SMOV's annual budget was approximately US\$11.4 million in 1996, and given the characteristics of the road system in the municipality, this is considered high. Nearly 30% of these funds are used to pay for contract services. The GCVU/SMOV has only recently begun to compile a register of road in a pilot zone of the city containing some 90 km of roads, with a view to drafting basic guidelines for a preventive maintenance plan (see paragraph 2.8d).

2. Road safety

- 1.18 Porto Alegre has the fourth highest ratio of vehicles to inhabitants in the nation, and the number of vehicles in the municipality grew by 18% during the period 1990-1995. During the same period, the number of traffic accidents grew by closer to 20%. In 1995, the number of accidents per day averaged 91, resulting in an average of 21 injuries and 0.8 deaths each day. Some 28.5% of the accidents involved pedestrians being run over, and this type of accident accounted for 53% of the 285 traffic fatalities during the year. The larger thoroughfares, especially arterial roads and those equipped with bus-only lanes are deemed the most dangerous and have the largest number of fatalities. The program includes a component to carry out a systematic assessment of traffic safety, and to correct the critical points where the greatest number of accidents (see paragraph 2.8c).

E. Basic sanitation sector

- 1.19 The Municipal Department of Water and Sewerage (DMAE) provides water supply and sanitary sewerage services in the municipality. Some 98% of the municipality's population has access to the water service, which is higher than state (91%) and national (85%) figures; and 75% of its inhabitants are connected to the sewerage system, which is also a higher coverage rate than the averages for the state (33%) and Brazil as a whole (42%). Yet deficiencies persist, including the fact that: (i) unaccounted-for water makes up 46% of the total volume produced; (ii) water rationing is needed in some parts of the city, especially during periods of peak demand; and (iii) only 5% of sewage gets treated (this will rise to 25% in 1999 when the intercepting sewers, outfalls and the two treatment plants being built under PROGUAIBA being financed with loans 776/OC and 911/SF are completed), and connections between sanitary sewerage and storm drainage systems contribute to the pollution affecting several of the city's watercourses. To address these problems, the DMAE is finalizing a revised and updated master plan for the sanitary sewerage system (PDE), and will begin revising and updating its master plan for the water supply system (PDA) within the next 10 months.
- 1.20 The excessive layers of bureaucracy in its organizational structure and the working procedures followed make for relatively low operating efficiency with only 290 households connections per

employee (SANEPAR, the sanitation company serving the state of Paraná has 347 households per employee). The current structure, with numerous cross subsidies between categories of users and consumption levels, penalizes the productive sectors of the economy and the public sector. To resolve this problem, the municipal authorities have undertaken to draft and submit to the Municipal Assembly within the next 30 months a bill modifying the present criteria used to calculate charges for water and sanitation services, bringing them into line with long-term marginal costs (see paragraph 3.9).

- 1.21 The state regulatory agency for public service operators Rio Grande do Sul (AGERGS), created in January 1997, does not control services provided by public or autonomous municipal companies as the DMAE does. Accordingly, a regulatory system will be set up at the municipal level through expansion of the DMAE's Deliberative Council (CD), adding several new members to make the Council more representative of society (NGOs, OP representatives, etc.). The Council will have a minimal staff of professions to provide technical support in negotiating and monitoring of a "management contract" with the DMAE administration, under which it will set six-month goals for governing service quality of and efficiency. The CD will assess compliance with the contract, and a comparison of the results achieved with those of companies considered efficient will be published in the local press (see paragraph 3.9).
- 1.22 A study or possible incorporation of the DMAE indicated that until the country's tax laws change, the disadvantages of incorporating would outweigh the benefits for the population. Autonomous State-owned utilities pay no taxes, but because existing laws do not permit dismissal of employees hired under the civil service regime, incorporation would not resolve the problem of overstaffing. The solution to this problem will have to wait until there is a change in the federal legislation.
- 1.23 The DMAE is carrying out a program to reduce the volume of water unaccounted for from 46% to 30% within five years. The DMAE will be earmarking US\$18 million in resources for this purpose over the period 1997-2002. Also, since 1996 the DMAE has been conducting a program to eliminate connections between sanitary sewers and the drainage system in areas that have a sanitary sewerage system.
- 1.24 The Municipal Sanitation Department (DMLU) is the agency responsible for solid waste management in Porto Alegre, including both collection and final disposal. Most garbage collection (with coverage including almost 100% of the urban area) and street cleaning services are outsourced. Approximately 90% of the material collected is recycled. The PMPA has been improving its waste disposal operations with resources (US\$2 million) from PRO-GUAIBA. The garbage collection fee charged by the municipality covers 43% of the DMLU's operating costs, and the rest is covered out of the PMPA's general revenues.

F. Storm drainage system

- 1.25 The city of Porto Alegre is built on land which is virtually level with the Guaíba River, and is therefore vulnerable to periodic flooding. To remedy this situation, 68 kilometers of protective dikes have been built, along with 18 pumping stations. The river channeling and storm drainage systems cover almost 75% of the urban area the PMPA, through its Storm Drainage Department (DEP), currently invests some US\$5.3 million per year in drainage works. In addition, the DEP receives US\$6 million per year in storm drainage fees which it uses to operate and maintain the system.

G. Upgrading of basic infrastructure

- 1.26 Several neighborhoods still lack adequate basic urban infrastructure, particularly those located on the fringe of the city and inhabited by low-income groups. Basic infrastructure upgrading works (referred to locally as pavimentação comunitária) constitute the single most important demand for investment voiced by participants in the OP. Demand is great for the various types of works that come under this heading: water supply, storm drainage, street paving and, in some cases, sanitary sewerage. It is estimated that the municipality contains close to 600 km of unpaved streets.

H. The environment and the municipality

- 1.27 The Municipal Office of the Environment (SMAM) is empowered to manage urban green spaces and carry out other environmental control activities. Among the latter are the tasks of licensing and monitoring activities that risk polluting the municipality's environment. Thus, its industrial pollutants program begun in 1990 has succeeded in reducing the discharge of organic wastes from the area's 93 industrial establishments with the greatest pollution potential by 87%. The table below summarizes the current status of these companies:

Status of company	Number of companies
1. With treatment facilities	42
2. Treatment facilities in construction	5
3. Under negotiation (reevaluating the production process and methods of treatment)	17
4. Companies that have modified their production process to meet standards	28
5. Companies that have left the municipality	1
Total	93

- 1.28 However, because the municipal environment agency lacks a legally defined mandate, many of the activities carried out by the SMAM overlap with those of the State Environmental Protection Foundation (FEPAM). In addition, the SMAM lacks adequately trained staff for certain types of activities, and has no collection procedures for fines or for licensing in general. The proposed program will strengthen the institutional capacity of the SMAM to review and license environmental activities and monitor industrial effluents. It will also lead to refining the legal and institutional definition of the environmental activities that come within the purview of the municipality (see paragraph 2.8b).

I. The Bank's country strategy

- 1.29 The Bank's strategy and operations program for Brazil for the 1995-1997 programming period is entirely consistent with the objectives of the Eighth Replenishment, and with the systematic approach adopted by the government in its efforts to eliminate the causes and minimize some of the social impact of chronic inflation and meet the need for modernizing the economy. The Bank's strategy emphasizes direct, comprehensive support for the following areas: (i) modernization of the State: assigning priority to improving public administration at the national and subnational levels; (ii) productive infrastructure: supporting measures to open up the economy and reduce the cost of doing business in Brazil (the "Brazil cost"); and (iii) the social sectors, basic sanitation and the environment: focusing on meeting the needs of low-income urban and rural populations through programs designed to improve their standard of living. The proposed program is consistent with the programming guidelines agreed upon with the Brazilian authorities inasmuch as it supports administrative and fiscal modernization at the municipal level and the strengthening of certain agencies providing service to low-income groups; and improves the quality of life of the population in the municipality and enhance economic activities by reducing traffic congestion in the city. The program will also provide water supply, storm drainage sewerage, and street paving services in areas to be selected by the community itself.

J. Experience with the Bank and other international institutions

- 1.30 The PMPA has never received a direct loan from the IDB or the World Bank. However, it had the use of close to US\$2 million under the program for social action in sanitation (622/OC), a project financed by the Bank at the national level. The resources were used to expand the municipality's sanitary sewerage system. The municipality is currently carrying out part of the works under the program for environmental restoration of the Guaíba Basin, PRO-GUAÍBA (776/OC and 911/SF), which has a total cost of US\$220.5 million and the borrower for which is the State of Rio Grande do Sul. This program got off to a slow start, primarily because of administrative changes in the state government and difficulties in hiring a firm to manage the project. In recent

months, program execution has improved considerably and nearly 20% of the total financing has now been disbursed. The direct construction costs for which PMPA is responsible total US\$30 million. To date, works have been carried out for wastewater conveyance and treatment with local counterpart funding of over US\$5 million. Works have recently initiated on construction of intercepting sewers, and authorities are completing the contract awarding process for the rest of the program works to be carried out in the municipality.

- 1.31 The PMPA is finalizing negotiations for two loans from the River Plate Basin Development Fund (FONPLATA) which total some US\$5 million to be used to finance expansion of the municipality's emergency hospital and for a project to restore degraded areas in the Diluvio River basin.

K. The municipality's gender policy

- 1.32 The Advisory Panel on Women's Issues was established at the beginning of 1993 to coordinate gender policy in various sectors, leading to the creation of the Municipal Women's Council, the majority of whose members are representatives of women's associations and NGOs. In order to expand the focus of the council and address other forms of discrimination, the Office for Coordination of Human Rights and Citizenship (CDHC) was created in 1997 under the Office of the Mayor. It includes the Advisory Panel on Women's Issues and similar panels on blacks, young people, gay rights and the handicapped. The CDHC has three main areas of activity: (i) developing policies, action programs and campaigns jointly with institutions and sectors of society to combat discrimination and prejudice, and promote respect for human rights; (ii) acting as a liaison in the human rights violations with other public agencies and NGOs working in the sector; and (iii) aiding and coordinating the work of the various of the municipal offices and agencies in the formulation and implementation of their sector policies.

L. Value added by the Bank

- 1.33 The proposed program would have the following benefits as value added by the Bank: (i) shifting priorities for use of the Perimetral from private vehicles to public transportation, thus generating net economic benefits totalling US\$23 million, compared with the original alternative and permitting optimization of mass transit which will favor users in the poorest segment of society; (ii) inclusion in the program originally submitted by the PMPA of components to modernize the municipal administration, including fiscal matters and strengthen the municipal agencies responsible

for road maintenance and safety, environmental control and basic sanitation; and (iii) changes in the program for upgrading of basic infrastructure, with the adoption of new design parameters, which will reduce the cost of the works by some 30%, saving close to US\$200,000 per kilometer.

II. THE PROGRAM

A. Objectives

- 2.1 The objective of the proposed program is to increase the well-being of the inhabitants of Porto Alegre by: (i) making the municipal administration more efficient in the performance of its functions; (ii) improving the efficiency of municipal agencies providing sanitation, environmental control, and road maintenance and safety services; and (iii) carrying out works to upgrade roads and other basic infrastructure in low-income neighborhoods.

B. Goals

- 2.2 This program is designed to achieve the following goals:
- a. Improve the efficiency of the PMPA in delivering services to the community by: (i) reducing the average time it takes the PMPA to complete five of its most important procedures 3/ by at least 50%; (ii) reducing the amount of paperwork handled by the PMPA by at least 50%; (iii) eliminating the use of printed tax forms, replacing them with electronic methods of filing; (iv) reducing by at least 60% the amount of payments made by the PMPA treasurer's office by means of automatic payments through the banking system; (v) installing a computer network with at least 2,500 interconnected work stations capable of handling 90% of the technical, administrative and managerial needs identified in the PMPA; (vi) providing over 5,000 training opportunities for municipal employees during execution of the program; and (vii) providing training for 40 professionals in techniques to prepare and evaluate investment projects.
 - b. Improve the efficiency of agencies providing basic sanitation, environmental control and road maintenance and safety services, so that by the end of the execution period: (i) the DMAE has increased its connections/employee ratio to 350, eliminated the distortions in its current rate structure and implemented a system for regulating the provision of sanitation services; (ii) the SMAM monitors the area's 150 industrial establishments with the greatest pollution potential and has set up an environmental licensing office at the municipal level; and (iii) the SMOV has implemented a preventive maintenance program covering at least 30% of the municipality's urban road, and its

3/ Approving construction plans, inspection of municipal medical care facilities, service to taxpayers, granting business licenses in general, and responding to citizen complaints.

road safety program has reduced traffic accidents by 30% and the number of fatalities by at least 50%.

- c. Complete the Perimetral III project in order to: (i) reduce north/south travel time in the city by 20%; (ii) promote the creation of new business centers, reducing travel time and congestion in the downtown core; (iii) help at least 90,000 bus passengers avoid having to stop in the downtown area before reaching their final destination, and save them having to pay the extra fare; and (iv) improve conditions for effective integration of the physical facilities and fare schedules in the urban and metropolitan public transportation systems.
- d. Provide basic infrastructure, including street paving, storm drainage, water supply and, in some cases, sanitary sewerage, for some 7,500 families.

C. Description of components

- 2.3 The proposed program is made up of three subprograms: administrative modernization, institutional strengthening and urban infrastructure.

- 1. Modernization of the municipal administration (US\$13.3 million)

- 2.4 The overall objective of this subprogram is to help the PMPA achieve a higher level of productivity in the services it provides to the community, without increasing operating costs. This increase in productivity will be achieved through reorganization of its operating methods and working procedures, introduction of modern technology, and strengthening of human resources. In addition, support will be provided to reinforce the municipality's tax and financial administration.
- 2.5 The subprogram is divided into two projects that will be carried out under the coordination of the Administration Office, the Finance Office, and the Data Processing Corporation of the Municipality of Porto Alegre (PROCEMPA), which is responsible for managing and conducting information technology activities for the municipal government. These two projects are described below:

- a. Administrative modernization (US\$10.1 million)

- 2.6 The general purpose of this project is to update the administrative structure of the PMPA to better to serve its citizens, by reorganizing its operating methods, technological resources and personnel management system. This project will have four components, the primary objectives of which are as follows:

- a. Human resources: restructure the personnel management system by installing a new computerized system and conducting a large-scale training program to prepare PMPA employees to carry out

their activities under the new operating and technological models, according to the new working methods.

- b. Operating model: streamline operations and improve the quality of public services by reorganizing working procedures.
- c. Management model: provide management-level officials of the PMPA with training in the use of systems and information sources to support monitoring and decision-making, and help them implement a performance-based management model designed to foster productivity.
- d. Technological resources: provide the PMPA with the hardware and software necessary to support the modernization process to be carried out under the program.

b. Modernization of the tax administration
(US\$3.2 million)

2.7 The two principal objectives of this project are to increase the level of efficiency and effectiveness of procedures used to monitor tax compliance and control public spending. This project is made up of the components listed below along with their goals:

- a. Tax legislation: review the various tax laws and decrees currently in force in order to simplify and consolidate the tax legislation into a single legal instrument (the tax code) and publicize it throughout the community.
- b. Reorganization: devise an organizational model that makes maximum use of available resources and provides comprehensive taxpayer services.
- c. Tax roll: establish a consolidated tax roll for the PMPA.
- d. Tax returns, collection and assessments: simplify procedures used by citizens to comply with their tax obligations, modernize collection controls and speed up the assessment process.
- e. Inspection and auditing: improve the efficiency of inspection and auditing and streamline procedures.
- f. Accounting and financial controls: reorganize and standardize procedures related to the budget, accounting and financial execution by integrating information systems and developing a new model for integrated financial controls.

2. Institutional strengthening (US\$5.25 million)

- 2.8 This subprogram will finance activities to strengthen the municipal agencies involved in delivering specific services to the population, and developing the bicycle path master plan.
- a. DMAE (US\$700,000): consulting services will be hired to:
(i) conduct studies for reorganization of the current Deliberative Council to separate responsibility for management and control of water supply and sanitary sewerage systems;
(ii) carry out a diagnostic study on the institutional, administrative, organizational, operational, commercial and financial aspects of the DMAE; and (iii) develop a set of efficiency indicators and semiannual targets to serve as the basis for negotiating an agreement between the CD and the DMAE administration for management of the services.
 - b. Strengthening of the SMAM (US\$800,000): includes purchase of equipment and training of personnel in order to: (i) expand the system for monitoring industrial effluents (from 90 to 150 industrial establishments) and other sources of pollution (oil-based substances from auto repair shops and gas stations, air and noise pollution, etc.); (ii) provide training for the SNAM in review and approval of applications for environmental licenses; and (iii) strengthen the SMAM's inspection capacity, including in high-risk areas.
 - c. Highway safety (US\$2.6 million): includes hiring of consulting services for verification and review of safety factors in Porto Alegre's road system through: (i) verification and review of designs for Perimetral III; (ii) auditing and analysis of the accident log, selection of critical sites and stretches in the road system, and preparation of engineering designs; (iii) construction of works such as pedestrian crossings, roadway realignment, signalling or installation of equipment to promote safety at specific locations; and (iv) formulation of highway safety procedures for the SMT and other agencies of the PMPA.
 - d. Strengthening of road maintenance service (US\$850,000): includes: (i) hiring consulting services to prepare a register of the road system and develop a system for managing pavement maintenance using a geographical data base of the urban road system; and (ii) purchasing the equipment necessary for structural evaluation of pavement and measuring traffic flow.
 - e. Bicycle path master plan (US\$300,000): a consulting firm will be hired to prepare the master plan for the city's bicycle paths to be used for work, exercise and recreation.

3. Infrastructure (US\$79 million)

2.9 This subprogram will include construction of Perimetral III and the street-paving works assigned priority through the OP process. The two projects are described below:

a. Perimetral III (US\$58 million): widening the road along a total length of 12.3 km to provide bus-only lanes, including: (i) widening and resurfacing with rigid pavement; (ii) relocation of street lighting and telephone poles; (iii) relocation, repair and expansion of water supply, sewerage and storm drainage systems; (iv) building of protective walls and access ways in stretches where there is a difference in elevation with existing structures; (v) construction and repair of roadways that serve as branch points for the various intersections; (vi) construction of masonry structures such as viaducts and grade crossings; (vii) channeling of Cascatinha Creek; (viii) installation of standardized public lighting along the Perimetral and at all branch points; (ix) construction of bus stops and terminals for passenger transfer; (x) signage, pavement marking and traffic signals; and (xi) tree-planting along the road.

b. Upgrading of basic infrastructure (US\$21 million): includes street paving and construction of storm drainage systems along urban roads selected through the OP process. In some cases, and in coordination with the DMAE, this will include installation of water supply and sanitary sewerage systems as well. These projects will be carried out using the multiple-works method.

D. Cost of the program

2.10 The total cost of the proposed program is estimated at US\$153 million. The breakdown by source of financing and investment category is given in the following table.

COST OF THE PROGRAM (US\$ thousands)				
CATEGORY	SOURCE OF FUNDS			
	IDB-OC	LOCAL	TOTAL	%
Engineering and administration	2,600	1,050	3,650	2.4
Studies and designs	0	500	500	0.3
Supervision and administration	2,600	550	3,150	2.0
Direct costs	68,000	29,550	97,550	63.8
Administrative modernization	6,600	6,700	13,300	8.7
Institutional strengthening	3,900	1,350	5,250	3.4
Infrastructure	57,500	21,500	79,000	51.7
Perimetral III	38,000	20,000	58,000	37.9
Upgrading of basic infrastructure	19,500	1,500	21,000	13.8
Associated costs	0	26,100	26,100	17.0
Expropriation	0	25,000	25,000	16.3
Resettlement	0	1,100	1,100	0.7
Unallocated	5,135	5,495	10,630	7.0
Contingencies	5,135	5,495	10,630	7.0
Finance charges	765	14,305	15,070	9.9
Interest	0	13,005	13,005	8.6
Credit fee	0	1,300	1,300	0.9
Inspection and supervision	765	0	765	0.4
TOTAL	76,500	76,500	153,000	100.0
% funds/project	50	50	100	

2.11 The main investment categories are described below:

1. Engineering and administration (US\$3.65 million)

2.12 This item, which represents 2.3% of the total cost of the program, is made up of the following categories:

a. Studies and designs (US\$500,000). This category includes the cost of preparing the remaining multiple-works projects (upgrading of basic infrastructure).

- b. Supervision and administration (US\$3.15 million). Included in this category is the hiring of specific consulting services to support the executing agencies in management and supervision of the program, the cost of the equipment required for supervision of the works, and the expenses of the executing unit. Costs involving payments to the regular staff of the PMPA are not included.

2. Direct costs (US\$97.55 million)

- 2.13 This category accounts for 63.7% of the total cost of the program and consists of administrative modernization for US\$13.3 million (8.6%), institutional strengthening for US\$5.25 million (3.4%) and infrastructure projects for US\$79 million (51.6%).

3. Associated costs (US\$26.1 million)

- 2.14 These account for 17% of the total cost of the program and include the purchase of land, resettlement of low-income families and compensation to be paid to businesses and tenant families affected by the Perimetral project. The cost for resettlement of families is estimated at US\$1.1 million. The total cost of expropriation of land and compensation is estimated at US\$47.2 million, of which the local counterpart contribution will be up to US\$25 million.

4. Unallocated (US\$10.63 million)

- 2.15 This category, which represents 6.9% of total costs, is included to cover a possible rise in costs due to technical contingencies in the specific components of the program. Contingencies were estimated at 10% of direct costs, not including contingencies under the multiple-works component (upgrading of basic infrastructure). Since cost escalation is expected to be close to zero, taking into account the projected exchange rate and inflation during the program execution period, costs were calculated with zero escalation.

5. Finance charges (US\$15.07 million)

- 2.16 This category, which accounts for 9.8% of the total cost of the program, consists of: (i) the interest that will accrue during the execution period; (ii) the credit fee; and (iii) the charge for inspection and supervision of the program by the Bank.

E. Financing of the program

- 2.17 In accordance with its financing matrix for Brazil, the Bank will contribute 50% of the total cost for the program, which is equivalent to US\$76.5 million. The resources will be drawn from the ordinary capital and disbursed in foreign exchange according to Bank policy. The local counterpart contribution, in a amount

equivalent to US\$76.5 million (or 50% of the total cost of the program), will be provided by the PMPA and DMAE.

- 2.18 The proposed loan would be granted on the following terms and conditions: (i) variable rate of interest; (ii) credit fee of 0.75%; (iii) inspection and supervision fee of 1%; (iv) disbursement period of five years; (v) grace period of five years; and (vi) amortization period of 20 years.

III. EXECUTION OF THE PROGRAM

A. The executing agency

- 3.1 The program will be carried out by the PMPA through a Program Coordinating Unit (UCP) created within the Planning Office (GAPLAN) attached to the Mayor's Office. The UCP will be responsible for coordination, planning and general supervision of the program during its execution. Evidence must be submitted that this unit has been established and assigned the necessary technical and administrative personnel, according to parameters agreed upon with the Bank, as a condition precedent to the first disbursement.

1. General functions

- 3.2 The principal functions of the UCP will be to: (i) review the bidding documents and all invitations to tender; (ii) set schedules and monitor physical and financial execution of the various projects under the program; (iii) manage the finances and keep accounts on the program, taking responsibility for disbursements and reporting to the Bank; (iv) coordinate the agencies involved in the program in order to meet project timetables and financial schedules, and achieve the desired results; (v) support and supervise the subexecuting agencies throughout the process of bidding and awarding contracts for works and services, and obtain the Bank's nonobjection; (vi) report to the respective supervisory bodies; (vii) act as the municipality's liaison with both the Bank and the federal government in matters relating to the program; and (viii) verify the eligibility of projects for upgrading of basic infrastructure.

2. Organization

- 3.3 The UCP will have a general coordinator, two technical advisers, a finance and accounting expert, two administrative assistants, and a consultant in procedures and methods. The unit will also be assisted by specialized consulting services, where necessary, in specific areas such as project and financial scheduling, procurement, the environment, and economic evaluation of projects.
- 3.4 The municipal agencies participating in program execution will set up a Local Coordinating Unit (UCL) to be responsible for: (i) tendering and executing the works, under the direction of the UCP; (ii) submission of bidding, selection and award documents, as well as contracts for works, goods and services, to the UCP for approval; (iii) administration and supervision of performance under contracts for services and construction works; (iv) drawing up progress reports on physical and financial execution of works and services; (v) coordinating the activities of all of the agencies

involved in the execution of works and services; and (vi) reporting to the UCP on the execution of projects under its coordination.

3. Participating municipal agencies

- 3.5 The investment in works (Perimetral III and upgrading of basic infrastructure) will be carried out by the SMOV, which will create a UCL for this purpose. The SMOV has experience letting contracts and carrying out works similar to those under the program, but given the scale of the works involved in the Perimetral project, it will hire a consulting firm to supplement its own personnel in supervising these works. The PMPA will submit evidence that the firm has been hired, in accordance with terms of reference agreed upon with the Bank, before inviting bids for the Perimetral works. The UCL will also be supported by the other agencies involved in the works program (DMAE, DEP, and SMAM).
- 3.6 The SMOV, acting through the same UCL, will also execute the program for strengthening the office responsible for maintenance of the road works. Within 12 months after program initiation, the PMPA will submit evidence that a consulting firm has been hired to prepare the data base and develop the road maintenance management system. In addition, within 30 months after program initiation, and prior to commitment of the resources for the third segment of the Perimetral (Avenida Teresópolis/Aparicio Borges and Viaducto Benjamim Constant) and the associated works for this segment, the PMPA must present evidence that the georeferenced data base has been implemented, along with the preventive road maintenance system. Within 42 months after signature of the contract, the PMPA will submit evidence that the computerized system for preventive road maintenance has been implemented.
- 3.7 The road safety component and preparation of the bicycle path master plan will be carried out by the UCL set up in the SMT. The activities for strengthening environmental management will be carried out by the UCL set up in the SNAM.
- 3.8 Technical assistance, including specialized consultants and training courses for modernization of the PMPA's tax and fiscal administration, will be provided by the UCL set up within the SMF. Execution of the administrative modernization component, including consultants and training, will be the responsibility of the Municipal Administration Office (SMA), which will establish a UCL for this purpose. The technology components of the subprogram for modernization of the municipal administration will be carried out by PROCempa.
- 3.9 The UCL that carries out the component for strengthening the DMAE will be the Sanitation Council. The Council will be made up of representatives of the economic advisory office attached to the Mayor's Office, the SMF, the DMAE, and the SMA, through the Supervisory Office, which will serve as coordinator of the UCL.

Within six months following program start up, the PMPA will submit evidence that consulting services have been hired to conduct studies and draw up the external control system for the DMAE. In addition, within 30 months after program start up, the PMPA will present evidence that the external control system for the DMAE has been duly implemented.

- 3.10 In addition to these UCLs, which will carry out the various projects under the program, two other UCLs will be created to provide support: (i) the first will report to the Assets Department of the SMF and will have exclusive responsibility for expropriations and the procurement of land under the Perimetral project; and (ii) the second will be part of the DEMHAB, the agency responsible for resettlement of families in the municipality, and will coordinate all activities for resettlement for families displaced by Perimetral project works.
- 3.11 Services will be hired in accordance with terms of reference approved by the Bank, copies of which are available in the technical files of RE1/EN1.

B. Method of execution

1. Subprogram for upgrading of infrastructure

- 3.12 The subprogram for upgrading of urban infrastructure will employ two methods of execution: specific works for the Perimetral project, since these works have already been planned and the cost of achieving their proposed objectives is known; and multiple works to be carried out under the project for upgrading of basic infrastructure, for which a sampling of projects has been analyzed by the Bank.

2. Administrative modernization

- 3.13 Execution of this subprogram will include hiring various consulting services and providing training courses under the administrative modernization project and the components on taxation, fiscal controls, organizational structure and finance. In addition, under this subprogram, the PMPA (through PROCEMPA) will purchase the necessary computer equipment and programs.

3. Institutional strengthening

- 3.14 The subprogram will include the hiring of consulting services to: (i) draw up the bicycle path master plan; (ii) develop the road maintenance system; (iii) support the introduction of the DMAE's external control system; (iv) help strengthen the SMAM; and (v) carry out diagnostic studies and draw up the road safety plan. The consulting firms selected for these tasks must have ample experience in the respective areas of study. In addition,

contracts will be awarded for small-scale road safety works, and supplies and equipment will be procured.

C. Status of project preparations

3.15 The municipality has hired experts to draw up plans for the infrastructure projects, and their status is as follows:

- a. Perimetral III: The geometric design and paving plan for the entire length of the Perimetral has been completed, along with the designs for the corresponding masonry structures, drainage works, street lighting, signage and tree-planting. The designs for relocating electrical, telephone, sewer and water lines have also been completed.
- b. Upgrading of basic infrastructure: Final designs have been submitted for a sampling of projects representing 60% of the investments to be made in year one. The remaining 40% are being prepared through the OP process. Consequently, no problems are foreseen in carrying out this component. The sample is sufficient to define the eligibility criteria for this component.

D. Eligibility criteria for community paving projects

3.16 To be eligible for financing under the program, projects for the upgrading of basic infrastructure must: (i) consist of works selected by the OP committees; (ii) be based on the least-cost technical solution, including designs for paving, storm drainage, water supply, and in some cases the sanitary sewerage; (iii) show an economic rate of return of at least 12%; and (iv) have a simplified environment report (RAS) approved by the SMAM. Prior to the first disbursement, the borrower will submit to the Bank for approval a set of Operating Regulations for the multiple-works component of the program, including technical, financial and environmental eligibility criteria and procedures for submission, evaluation and approval of projects.

E. Agreements

3.17 The contract for the proposed loan will contain a clause stating that prior to the first disbursement, the municipality will submit evidence that the following agreements have been signed: (i) an agreement with the DMAE establishing the conditions for the transfer of works for operation and maintenance, and indicating the DMAE's obligation to repay the cost of water supply and sanitary sewerage systems, inasmuch as the program for upgrading of basic infrastructure includes water supply and sewerage works that are the responsibility of the DMAE; and (ii) an agreement with PROCempa establishing the conditions for the procurement of goods and the hiring of consulting services on the part of PROCempa using program resources.

F. Land ownership, rights-of-way and easements

- 3.18 The proposed program will affect 809 properties along the route for Perimetral III. The great majority of these will be affected only partially, primarily in the form of strips of land which are vacant now and must be kept free of buildings or other structures, because the PMPA has not allowed any construction along the route chosen for construction of the Perimetral since the approval of the PDDU in 1971 (see paragraphs 1.5 and 1.15). The PMPA already owns 73 of the properties that will be affected.
- 3.19 In order to obtain possession of the properties affected by construction of the Perimetral, the PMPA established a UCL in the Assets Department of the SMF, which is negotiating the purchase of the properties. Among them are six lots listed as having historical value by the Municipal Council on Historical and Cultural Heritage (COMPHAC), as well as land belonging to the federal and state governments. Before issuing calls for bids on the Perimetral, the PMPA must submit to the Bank: (i) a report from the COMPHAC recommending what should be done with the six lots; and (ii) agreements signed between the municipality and the state, and between the municipality and the federal government, establishing the conditions for the transfer of land owned by the state or federal government and affected by the Perimetral.
- 3.20 No difficulties or conflicts are expected in connection with acquisition of the land required for carrying out the program, inasmuch as the law permits expropriation of land needed for the public good. The PMPA expects that a considerable portion of the owners whose lands are expropriated will opt for compensation in the form of construction waivers. ^{4/} Before calling bids for any specific works project, the executing agency must demonstrate that it is in legal possession of the land necessary for that project, and that the land is available for construction.

G. Resettlement of families

- 3.21 The Perimetral works will displace 50 low-income families (those with monthly incomes of less than five minimum salaries) who are to be resettled. Forty-two of the 66 families living in Villa Salvador França on land owned by the state will be affected (the other 24 families do not qualify since they are not in the low-

^{4/} Municipal ordinance 43/79, which establishes the Urban Development Master Plan (PDDU), authorizes the municipality to offer a construction waiver in exchange for private property affected by the provisions of that Plan. This waiver enables the property owner to exceed the building code density rules when building on his remaining land, where it is not necessary to expropriate the entire property, or in equal proportion on another property within the planning zone. This feature gives the waivers a market value.

income group). Also included in the group to be resettled are five low-income homeowner families who could not afford to purchase new homes with the compensation received, and three tenant families who, given their financial situation, could not afford to purchase homes on the formal market.

- 3.22 PMPA representatives have held meetings with the leaders of Villa Salvador França and surveyed the affected families. In responding to the survey, 9% stated their preference for compensation, 79% said they would like to look at the resettlement proposal, and 12% were undecided. The area chosen for resettlement is 2 km from Villa Salvador França and is already equipped with basic utilities including water supply and sewerage, six schools, two health clinics, 11 squares, and public transportation. The proposal is to offer families two possible housing arrangements: one with 32.5 m² of finished living space, and with the possibility of later expansion; and the other with two stories and 50.2 m² total floor space. The families can opt to purchase their house (in which case the amount of compensation will be deducted from the total price) or may sign a lease agreement under which they will pay a monthly rent to be determined on the basis of family income.
- 3.23 The Bank will review the final resettlement plan prepared by the PMPA, which must be submitted as a condition precedent to the first disbursement of the loan, to ensure compliance with the applicable Bank policies. This plan must include, among other information, a socioeconomic breakdown of the affected families (number of elderly and female heads of household, per capita incomes, etc.), appraisal of affected properties in Villa Salvador França and those of low-income families, criteria for determining eligibility to purchase housing units, results of public consultations held, and a table summarizing the housing options and compensation chosen by the families. As a condition precedent to the first disbursement for works on the Perimetral, the PMPA will be required to submit: (i) evidence that the state has agreed to transfer that part of the land in Villa Salvador França affected by the Perimetral to the municipality; and (ii) evidence of legal possession of the land on which low-income families are to be resettled. Resettlement of the affected families will be a condition precedent to physical initiation of works on each stretch of the Perimetral.

H. Execution period and schedule of investments

- 3.24 The period for disbursement of the loan proceeds will be five years. This period has been determined on the basis of experience with the execution of similar programs and availability of the local counterpart funding. Physical initiation of works under the multiple-works program for upgrading of basic infrastructure must begin within 52 months after signature of the loan contract. The following table contains a summary of the investment schedule:

INVESTMENT SCHEDULE

YEAR	IDB	LOCAL	TOTAL	%
1	9,580	20,010	29,590	19.3
2	20,830	21,430	42,260	27.6
3	19,800	16,710	36,510	23.9
4	17,180	10,690	27,870	18.2
5	91,170	7,660	16,770	11.0
TOTAL	76,500	76,500	153,000	100.0

I. Bidding procedures and schedule

- 3.25 Procurement of goods and related services and the awarding of contracts for construction works will be carried out according to the Bank's procedures. International competitive bidding will be mandatory for the purchase of goods and related services valued in excess of US\$350,000 and for construction contracts valued in excess of US\$5 million. Procurement in amounts below these thresholds will be conducted in accordance with local legislation, which is consistent with the Bank's procedures. It is estimated on the basis of the above thresholds that 60% of all competitive bidding will be international in scope. Bidding on consulting contracts will be conducted in conformity with Bank procedures. Contracts for works and services and the purchase of equipment will be grouped into packages, as indicated in Annex III-1.

J. Recognition of expenses

- 3.26 The PMPA has requested that US\$4 million in expenses incurred by PROCEMPA since September 1996 for the purchase of computer equipment and programs be recognized as part of the local counterpart funding. The project team has reviewed the procedures used and supports this request.

K. Advance of funds

- 3.27 In accordance with the new procedures governing this area, the Bank will advance 5% of the amount of the loan in the form of a revolving fund.

L. Environmental considerations

- 3.28 The CMA, at its meeting of October 15, 1996, classified this project as a Category III operation, based on its potential impact on the environment. The environmental impact assessments of the program were disclosed to the public on July 25, 1997, and forwarded to the PIC on October 24, 1997. The program's environmental summary was taken up by CESI on September 12, 1997, and sent to the PIC on October 17, 1997.

- 3.29 In carrying out the works specified in this program, all environmental standards and licensing procedures in effect in Brazil will be adhered to. A public hearing was held on October 3, 1997, and the environmental license required must be obtained before negotiation of the loan. In addition, the UCP will prepare a document consolidating all the measures to be taken for mitigation of any adverse environmental impact and for environmental control during construction of the works to be carried out under the program. This document will be part of the bidding documents.

M. Maintenance

- 3.30 In accordance with the Bank's policies, within the first quarter of each year, the PMPA will submit an annual maintenance report on the works built under the program, beginning in the year following the effective date of the Bank loan and continuing through the second year after the date of the final disbursement. This report will contain: (i) a listing of the maintenance activities carried out during the preceding year, indicating quantities and amount of expenses incurred; (ii) description of the method of execution, sources of financing, and resources utilized; (iii) an assessment of the current state of repair of the construction works; and (iv) the maintenance plan for the year in which the report is filed.

N. Control and monitoring of the operation

- 3.31 The control and monitoring of program execution will be exercised by the Bank's Country Office in Brazil. The executing agency will submit an initial report to the Bank which must include an updated version of the logical framework (see Annex III-2) and the questionnaire for the diagnostic study on the fiscal and administrative status of the municipality. The agency will also submit semiannual progress reports which will serve as the basis for program administration. These reports must contain at least an updated and detailed schedule for execution of the various activities under the projects, including the resettlement of families and expropriation, with an analysis of the problems affecting their execution, and the plan for the next six-month periods. In the event that program execution is found to be unsatisfactory, the executing agency will have 60 days from receipt of the Bank's recommendations to submit to the Bank a description of the corrective measures to be taken and a timetable for their implementation.
- 3.32 Within 30 months after the effective date of the contract or once 50% of the program resources have been committed, whichever occurs first, the Bank will conduct mid-term review mission. The basis for this review will consist of the semiannual reports submitted by the PMPA, achievement of the performance indicators, and the progress made in the implementation of the preventive road

maintenance system. Should it be ascertained that satisfactory progress has not been made, the Bank and the PMPA will agree on the necessary measures and adjustments and on a timetable for their implementation.

- 3.33 The reports prepared by the Country Office on the status of the loan will describe any problems that have occurred during program execution and the measures taken to resolve them. A summary of these matters will be included in the annual report on the Bank's portfolio in Brazil.
- 3.34 The UCP will submit an annual report to the Bank within the first 90 days of each year, containing the annual financial statements of the program, which must be audited by a firm of independent auditors approved by the Bank. In addition, the auditors will issue an opinion concerning compliance with the financial clauses of the loan contract with the Bank.

0. Performance indicators for the program

- 3.35 An evaluation of the degree to which the program is fulfilling its goals will be carried out using the indicators listed in the logical framework, the most important of which are shown in the table below.

PERFORMANCE INDICATORS

Performance indicator	Cumulative yearly goals				
	Year 1	Year 2	Year 3	Year 4	Year 5
Reduction in the time it takes to complete five major procedures (%)	10	20	30	40	50
Reduction in paperwork in the PMPA (%)	5	15	25	35	50
Municipal tax declarations filed in electronic form (%)	20	40	70	90	100
Payments made by the municipality through the banking system (% of operations)	5	20	35	45	60
Installation of work stations (units)	1,000	1,500	2,000	2,250	2,500
Training provided (number of persons)	500	2,000	3,500	4,500	5,000
Training in project preparation and analysis (persons)	20	40	40	40	40
Increase in the DMAE's efficiency (customers [water & sewerage]/employee)	300	310	320	335	350
Reduction in unaccounted-for water (%)	41	37	34	32	30
Number of industrial establishments monitored by SMAM	95	105	120	135	150
Reduction in traffic accidents (%)	-	-	5	15	20
Reduction in number of traffic fatalities (%)	-	-	10	20	30
Preventive maintenance carried out (% of total road system)	-	-	-	-	30
Number of families provided with urban infrastructure	1,500	3,000	4,500	6,000	7,500
Reduction in average cost of upgrading basic infrastructure in the municipality (US\$1,000/km)	650	600	550	500	470

P. Ex post evaluation

- 3.36 The municipal authorities indicated that they do not wish to undertake an ex post evaluation of the program.

Q. Data compilation

- 3.37 Nevertheless, the executing agency will compile and process the data which would be required if an ex post evaluation is eventually conducted by the Bank. This data will be forwarded to the Bank in annual reports beginning in the second year of execution and continuing for two years after the program is completed. Within 12 months after signature of the contract, the PMPA will submit a report to the Bank listing the data to be collected and providing a detailed account of the procedure that will be followed for its compilation and processing.

IV. THE BORROWER AND EXECUTING AGENCY

A. The borrower and executing agency

- 4.1 The borrower and executing agency for this program is the Municipality of Porto Alegre (PMPA). The PMPA will create a Program Coordinating Unit (UCP) under its Planning Office (GAPLAN). In addition, it will create Local Coordinating Units (UCLs) within specific agencies of the municipal administration (as described in chapter III of this proposal) to carry out the various components of the program.

1. Institutional analysis

a. Organization

- 4.2 The municipal executive of Porto Alegre is made up of the Mayor's Office, 14 offices and three autonomous municipal institutions. Also part of the executive are a foundation and three semipublic enterprises.

b. Personnel

- 4.3 Between December 1991 and April 1997, the number of staff employed directly by the municipality rose by 2,579 (25%) to constitute a total payroll of 12,886 employees, while the number of indirectly employed workers increased by 317 (4%) to a total of 7,784. Most of the new regular staff was hired to cover increased services in education, health, sports and tax administration, areas which require specialized personnel. Over the same period, the number of municipal retirees rose from 4,507 to 5,093 (13%) and, as a result, the ratio of active to retired personnel dropped from 3.5 to 3.1. Municipal enterprises employed another 1,998 workers. Execution of the proposed program is not expected to require an increase in the number of municipal employees inasmuch as the subprogram to modernize its administration will increase the productivity of existing personnel, in particular those directly serving the public.

c. Internal auditing

- 4.4 As part of its internal control procedures, the PMPA has an internal auditing unit which is responsible for examining the accounting finances, budget, capital and operations of all of the agencies that make up the municipal administration. This unit reports directly to the Mayor's Office, which is an appropriate level in the organizational structure. The PMPA is currently strengthening its internal auditing unit to improve its efficiency in carrying out preventive and management support duties.

d. External auditing

- 4.5 The municipality's annual financial statements, including those for its force account operations, outsourced activities and municipal enterprises, are audited by the Official Auditing Office of Rio Grande do Sul State (TCE).

2. Financial analysis

a. Municipality

- 4.6 The financial data for the period 1991-1996 show that: (i) the PMPA has been making an effort to improve tax revenues, which rose from US\$128 million in 1991 to US\$186 million in 1996; 5/ (ii) the municipality's payroll costs in 1996 were US\$264 million, or close to 50% of current revenues; (iii) to reduce costs, the administration has begun contracting with third parties for some of its services, the budget for which has risen from US\$31 million to US\$69 million over the period; (iv) the municipality has consistently generated savings equivalent to approximately 10% of its current revenues (in 1996 the savings amounted to some US\$50 million); and (v) transfers to decentralized agencies have remained unchanged since 1994.
- 4.7 The data from its latest balance sheet indicate that: (i) the PMPA has a low level of long-term debt and a fairly favorable payment schedule (payments totalling US\$43 million, with US\$13 million due in 1997/98 and the balance through 2014); (ii) its short-term obligations consisted of US\$36 million in outstanding balances and US\$7 million in other short-term debts, while liquid assets totalled US\$26 million (banks and short-term investments) and short-term accounts receivable stood at US\$6 million; and (iii) taxes and fees past due totalled US\$60 million.
- 4.8 The monthly financial statements prepared by the PMPA for the period 1991-1996 have been adjusted to show constant reais of December 31, 1996, based on Brazil's consumer price index (the IGP-DI) and converted to dollars on the same date. The following table shows the flow of funds based on budget performance for the period 1991-1996. A breakdown by year is shown in the table below.

5/ Not counting federal transfers for devolution of responsibility for health care services to the municipality.

FLOW OF FUNDS
(US\$ millions)

	1991	1992	1993	1994	1995	1996
Current revenues	299.8	304.9	296.9	359.0	441.5	534.2
Taxes	128.1	125.0	106.1	128.4	170.5	185.9
Transfers	149.5	143.1	136.9	161.9	205.6	285.5
Federal govt.	39.2	24.8	29.6	32.1	44.8	117.0
State govt.	110.3	118.3	107.3	129.8	160.8	168.5
Other	22.2	36.8	53.9	68.7	65.4	62.8
Current expenditures	281.4	265.0	276.9	321.6	385.3	484.2
Payroll	180.2	164.2	167.1	182.7	230.3	263.8
Intra-govt transf.	50.4	42.3	40.7	49.2	52.0	124.5
Interest	2.1	1.6	1.6	1.6	2.5	2.6
Other	48.7	56.9	67.5	88.1	100.5	93.3
Current savings	18.4	39.9	20.0	37.4	56.2	50.0
Repayments	4.5	4.0	3.8	1.8	4.2	5.2
Net savings	13.9	35.9	16.2	35.6	52.0	44.8
Invest. and transf.	37.8	51.7	29.1	74.9	51.0	43.8
Surplus (deficit)	(23.9)	(15.8)	(12.9)	(39.3)	1.0	1.0
Loans	1.6	4.5	2.2	4.6	7.4	1.5
Other capit. res.	2.5	1.4	2.1	1.8	1.8	3.4
Actual surplus (deficit)	(19.8)	(9.9)	(8.6)	(32.9)	10.2	5.9

Notes: Current and capital expenditures include payments due.
Equity income (under other current revenues) are net of inflationary effects.

- 4.9 An analysis of these data shows that the PMPA has adopted a conservative approach in its financial administration, leaving the municipality with a good short- and medium-term outlook. Furthermore, during the period reviewed it had no difficulty meeting its debt-servicing obligations while also carrying out an average of close to US\$50 million in annual investments.

b. DMAE

- 4.10 The DMAE is an independent agency enjoying administrative and financial autonomy, created under Law No. 2312 of December 15, 1961, with a mandate to supervise and carry out activities relating to the municipality's water supply and sanitation systems, and to protect the PMPA's water resources. In 1996, the DMAE billed US\$91.7 for services rendered. At the close of that year, it had close to US\$51 million in delinquent accounts, of which nearly US\$38 million was owing from the state government. The rates charged by DMAE were sufficient to cover its operating expenses and maintenance, and to generate some US\$23.4 million for investments. The department has no major long-term debts, and its short-term debt totals US\$18 million. The program includes resources to

finance consulting services to introduce a regulatory system for the DMAE (see paragraph 2.8a).

- 4.11 The contract for the proposed loan will include the following conditions, to be fulfilled by the PMPA, through the DMAE: (i) take appropriate measures acceptable to the Bank to ensure that the rates charged for water and sanitation services generate at least enough income to cover all of the costs for providing these services, including administration, operation, maintenance and depreciation of revalued fixed assets, plus sufficient resources to service its debt and cover 40% of annual investment costs; and (ii) take steps to ensure that collections for services rendered by the DMAE amount to at least 85% of billings during the year, including balances outstanding at the start of each year. In addition, within 12 months following signature of the contract, the borrower will submit a plan for recovery of past due accounts, with semiannual goals, with the State of Rio Grande do Sul.

c. Other autonomous municipal agencies (DEMHAB and DMLU)

- 4.12 By capping monthly rental fees to a percentage of the minimum wage, the municipal housing policy carried out through the Municipal Housing Department (DEMHAB) creates a gap between collections and the amount needed to service the agency's debt. In 1996, the DEMHAB recorded a surplus of US\$500,000, but it is expected to have a deficit of US\$1.2 million by 1997. To address this problem, the DEMHAB is studying its housing policy with a view to switching to explicit subsidies granted directly to low-income families. At the same time, it is conducting an analysis and updating its portfolio of housing loans, as well as introducing a new, more flexible and efficient computer system for managing and tracking this portfolio. The DEMHAB operates other programs related to the municipality's housing policy which do not generate revenues, including land titling and technical assistance for housing cooperatives. The DEMHAB's administrative costs are paid out of the PMPA's general revenues and in 1996 amounted to US\$13 million.
- 4.13 The Municipal Sanitation Department (DMLU) has outsourced a large part of its services but still has a payroll of 2,207. The majority of its employees were hired under the civil service regime, which means that they enjoy job security, and most are currently assigned to cleaning public buildings and municipal parks. Revenues generated by the department cover only 43% of its current expenditures. To improve efficiency, the DMLU is conducting an evaluation of its organizational structure and operations aimed at reducing costs for providing services and, if warranted, increasing the fees it charges for these services in

order to become financially self-sufficient. It should be noted that some of the services provided by the DMLU, such as cleaning of public streets and buildings, are not paid for by the public directly but are covered with resources from the municipal treasury.

V. FEASIBILITY OF THE PROGRAM

A. Rationale

- 5.1 The program will finance administrative modernization aimed at increasing the operating and management capacity of the PMPA in order to strengthen the performance of its functions, and will also provide institutional strengthening in specific areas designed to improve the delivery of community services. These initiatives will reinforce efforts by the PMPA to make the preparation and execution of its budget more transparent and to give greater priority to service for its citizens. In addition, the program will finance those infrastructure works judged most important by the community through the OP, particularly the Perimetral III project, which will make it possible to introduce a new operating model for public transportation and begin the process of decentralizing the city. At the same time, the program will finance a number of projects for the upgrading of basic infrastructure, including street paving, storm drainage, water supply and, in some cases, sanitary sewerage, which are the types of projects for which there is the greatest demand on the part of the community.

B. Institutional feasibility

- 5.2 The PMPA has a suitable organizational structure and adequate procedures for internal control. Over the past five years, it has carried out investments of close to US\$50 million per year. To handle execution of the program, the PMPA will establish an executing unit (UCP) with the capacity necessary to monitor and supervise the program. A consulting firm will assist the UCP with administration, finance and accounting, scheduling and supervision, and will provide advice in specific areas as required for execution of the program. The SMOV will likewise have the support of a consulting firm to assist with supervision of the works. The subexecuting units are expected to have sufficient capacity to handle the competitive bidding and awarding of contracts in accordance with the program procedures. In addition, they will have the support of the UCP to resolve any difficulties.
- 5.3 The SMOV office responsible for street maintenance will be strengthened in order to carry out its tasks more efficiently. To help maintain computer equipment and systems, the PMPA will have the services of the PROCempa which has qualified technical staff to provide the necessary support for users of the system to be installed.

C. Financial feasibility

- 5.4 The financial analysis based on data for the period from 1991 through July 1997 and income and expenditure projections over a

10-year period indicate that the PMPA will be able to provide the local counterpart funds needed for the program in the amounts and at the times specified, as well as to service the proposed Bank loan. Moreover, the investments in administrative modernization included under the program should improve the efficiency of the PMPA's tax and financial administration, as well as its operating procedures, which could boost tax collections by 10-15% and generate savings of 5-10% in the delivery of services to the population. In addition, the activities to strengthen state and federal fiscal administration to be financed with Bank resources should help to increase tax revenues at those levels, resulting in greater transfers to municipalities.

PROJECTED FLOWS OF FUNDS
(US\$ millions)

	1997	1998	1999	2000	2001	2002	2003-2006
Current revenues	666.9	689.8	710.7	734.3	754.9	777.3	3,286.2
Taxes	195.2	204.9	218.4	232.9	244.6	254.3	1,122.9
Transfers	412.9	424.7	430.7	438.4	445.9	453.1	1,883.8
Federal govt.	239.0	240.2	241.4	242.5	243.7	244.9	992.7
State govt.	173.9	184.4	189.4	195.9	202.2	208.2	891.1
Other	58.9	60.2	61.6	63.0	64.4	65.9	279.4
Current expenditures	633.6	650.4	661.2	670.0	678.2	685.6	2,809.5
Payroll	277.0	285.3	289.5	293.9	298.3	302.8	1,257.2
Transfers	255.3	257.1	258.9	260.2	260.8	260.8	1,043.4
Interest	3.9	6.1	7.0	7.8	8.6	9.0	30.7
Other	97.5	101.9	105.7	108.1	110.5	113.0	478.3
Current savings	33.3	39.4	49.5	64.3	76.6	87.7	476.7
Repayments	4.9	5.2	3.9	4.0	4.2	4.2	33.0
Net savings	28.4	34.2	45.6	60.3	72.5	83.5	443.7
Invest. and transf.	45.5	62.5	76.3	83.6	93.1	96.0	457.3
Fin. surplus (deficit)	(17.1)	(28.3)	(30.7)	(23.2)	(20.6)	(12.5)	(13.8)
Loans	13.8	24.9	27.2	19.8	17.2	9.1	0
Bank		9.6	20.8	19.8	17.2	9.1	
Other	13.8	15.3	6.4				
Other capit. res.	3.5	3.5	3.5	3.5	3.5	3.5	14.0
Surplus (deficit)	0.3	0.1	0	0	0	0.1	0.2
Cumulative	6.2	6.3	6.3	6.3	6.3	6.4	6.8

D. Technical feasibility

- 5.5 The program is deemed viable and justified from the technical standpoint in that it is consistent with the guidelines laid down in the PDDU and will permit implementation of the city's Master Plan for Urban Transportation to reduce congestion in the downtown

area and improve the mass transit system by enabling riders to avoid unnecessary trips and improving the flow of traffic. The studies and final designs for projects, including construction of roads, bridges, grade crossings and drainage structures, meet projected needs for vehicular traffic and public transportation and have been drawn up in accordance with generally accepted engineering standards and principles. The designs are based on the least-cost, technically viable alternative solutions and do not entail any major complexity in execution.

- 5.6 The scheduling of the infrastructure works has been examined by the Bank and takes due account of the need to avoid, insofar as possible, interfering with current traffic patterns or disturbing the inhabitants and businesses in the areas affected by construction. The works have been divided into segments in order to keep interruptions to a minimum.
- 5.7 The program implementation schedule, including administrative modernization, institutional strengthening and infrastructure works, has been planned taking into account the nature of the projects and the periods required for prequalification and bidding procedures, as well as past experience with similar projects.
- 5.8 The PMPA has experienced professionals who will be assigned to oversee and monitor implementation of the different components of the program, and there are both Brazilian and foreign companies capable of carrying out the works, providing the consulting services and supplying the required equipment and materials.

E. Socioeconomic feasibility

1. Perimetral III

- 5.9 An economic analysis of the Perimetral project was carried out, taking into account: (i) the volume of traffic; (ii) the difference in vehicle operating costs with and without the project, estimated using the VOC (vehicle operating cost) module from the Highway Design Manual (HDM); and (iii) savings in travel time with the project. Two "with project" scenarios were analyzed: (i) the Perimetral without a bus-only lane; and (ii) the Perimetral with the bus-only lane to facilitate adoption of a new operating model for the city's public transit system (see paragraph 1.15b).
- 5.10 The volume and flow of vehicles were determined using origin/destination (O/D) counts. The projections were based on: (i) the ratio of increased traffic to growth in the number of individuals riding in automobiles; (ii) the same ratio for growth in bus ridership, and also including the traffic that would be generated with the adoption of the new operating model for the public transit system; and (iii) increased truck traffic due to economic growth in the municipality. The speed and travel times for automobiles, buses and trucks were estimated using the United

States Highway Capacity Manual (HCM) program for the two "with project" scenarios. The speed of vehicles without the project was based on field research.

- 5.11 The evaluation included all road maintenance costs, plus a contingency provision of 10%, calculated at efficiency prices. The cost-benefit analysis indicated that the alternative with the bus-only lane produced a net present value (NPV) approximately US\$22.8 million higher than the alternative without the bus lane, for which reason the former was selected. The following table shows the results obtained in the analysis.

Alternative	Costs	Benefits	Net Benefit	EIRR (%)
Without bus-only lane	(61,569.3)	166,771.1	105,201.8	31.5
With bus-only lane	(74,273.3)	202,262.8	127,989.5	31.2

- 5.12 A sensitivity analysis was performed and indicated that there is solid socioeconomic justification for the project, which is therefore recommended. A 50% increase in the total cost would reduce the economic internal rate of return (EIRR) by 22%, and a 50% reduction in project benefits would still yield an EIRR of 17%.

2. Upgrading of basic infrastructure

a. Least-cost analysis

- 5.13 This component includes works for water supply, and storm drainage, street paving, and in some cases sanitary sewerage. During preparations for the program, the Bank made several recommendations which resulted in significantly lower costs. The recommendations were incorporated into the sample projects selected, as follows: (i) adjust the structure of the pavement to projected traffic; (ii) use lower-cost materials for base course and geotextile mats in stretches that require large-scale replacement of soils; (iii) optimize the distances between manholes in the storm drain system; (iv) installing storm drains on one side of a roadway and sanitary sewers along the opposite side, where feasible; (v) use longer stretches of roadways to obtain economies of scale; and (vi) increase the number of laboratory tests of soil samples to reduce project risks.
- 5.14 Other measures that affect the PMPA's costs in implementing the program are: (i) change the selection criteria for construction works to produce an organized set of works in order to generate greater economies of scale; and (ii) gradually increase the minimum length of the works to 500 meters. The PMPA is also studying the possibility of introducing a credit and debit system between budget periods so that communities will not be adversely affected by the

proposed increase in minimum lengths. Within 12 months following signature of the loan contract, the PMPA will submit evidence that these measures have been disseminated among the participants in the OP.

b. Cost-benefit analysis

- 5.15 With support from the Bank, the PMPA conducted a study of hedonic prices to determine the valuation placed on the community street paving works in the local real estate market. The results indicated that on average, the properties benefitting from this type of project will see a 17.6% rise in their rental value. A cost-benefit analysis prepared by the PMPA for a sample of 22 projects showed that 16 of them produced a return in excess of 12%, which is the minimum required by the Bank. The projects selected are representative of about 60% of the works to be carried out in the first year (the results of the analysis are available in the technical files of RE1/EN1). The six projects that didn't prove feasible will be reviewed with the community to devise a viable solution.

3. Analysis of impact on low-income groups

- 5.16 The program sought to give precedence to public transportation, which is generally used by lower-income groups, and also to extend basic infrastructure to outlying areas of the city. However, owing to the general income level of inhabitants of Porto Alegre, the program does not qualify under the social equity and poverty-reduction criteria (AB-1704, paragraph 2.13 and paragraph 2.15), since less than 50% of its beneficiaries will be members of low-income groups.

F. Risks of the operation

- 5.17 The necessary expropriations and resettlement of families could delay execution of the construction works for the Perimetral. The creation of UCLs specifically equipped with the resources needed to carry out these tasks should reduce this risk.

**MUNICIPAL DEVELOPMENT PROGRAM FOR PORTO ALEGRE
PROCUREMENT SCHEDULE**

ITEM		No. CALLS FOR TENDERS/ PACKAGES	FINANCING (%)		METHOD	COST US\$ '000	PUBLICATION OF PROCUREMENT NOTICE
			IDB	LOCAL			
CONSULTING SERVICES							
1	Prepare basic infrastructure projects	5/1	0	100	LCP	500	II/98, 99, 00, 01, 02
2	Services to support project management	1/1	86	14	ICP	1,400	I/98
3	Services to assist with supervision of Perimetral works	1/1	86	14	ICP	1,750	I/98
4	Training in planning and management of services	several	90	10	LCP	190	II/98, 99, 2000
5	Training in preparation and evaluation of investment projects	1/1	90	10	LCP	38	III/98
6	Training in organizational models and methods	1/1	90	10	LCP	118	II/98
7	Draft guidelines for supervision and evaluation of products and services	1/1	90	10	ICP	286	III/98
8	Develop software for human resource management	1/1	90	10	ICP	762	II/98
9	Develop management systems and administrative procedures, and provide training	1/1	90	10	ICP	235	III/98
10	Develop management information system	1/1	90	10	ICP	362	II/98
11	Develop software and provide training for professionals in computer networks	1	90	10	ICP	213	II/98
12	Training for staff in organization and methods	1/1	90	10	LCP	96	II/98
13	Develop software for use in legal and fiscal areas	1/1	90	10	LCP	142	III/98
14	Develop integrated tax and financial administration system	1/1	0	100	LCP	2,290	I/98
15	Consolidate municipal tax legislation	1/1	90	10	LCP	25	III/98
16	Prepare register and program for managing road maintenance	1/1	60	40	ICP	750	I/98
	Prepare bicycle path master plan	1/1	60	40	ICP	300	I/2000
17	Create technical and legal framework for devolving environmental services to the municipality	1	60	40	LCP	100	III/99
18	Formulate road safety plan and prepare projects for correction of critical areas	1	60	40	ICP	600	III/98
19	Propose regulatory system for the DMAE and basis for management contract	1/1	60	40	ICP	750	I/98

ITEM		No. CALLS FOR TENDERS/ PACKAGES	FINANCING (%)		METHOD	COST US\$ '000	PUBLICATION OF PROCUREMENT NOTICE
			IDB	LOCAL			
EQUIPMENT							
20	Procure equipment for environmental control and monitoring	several	58.8	41.2	LCB	700	III/98
21	Procure equipment for structural evaluation of pavement	1/1	58.8	41.2	LCP	250	I/98
22	Procure computer hardware and software, and office furniture	several	0	100	LCB	7,948	II/98
23	Carry out corrective works and install signage for improving road safety	several	58.8	41.2	LCP	2,000	IV/99
WORKS							
24	Carry out works to upgrade offices	Several	0	100	LCP	458	I/2000
25	Carry out paving and related works - Stretch 1	1/4	66	34	ICB	11,910	I/98
26	Carry out paving and related works - Stretch 2	1/2	66	34	ICB	20,255	I/99
27	Carry out paving and related works - Stretch 3	1/2	66	34	ICB	9,447	I/00
28	Construct the Ipiranga bridge, the Protasio Alves grade crossing, and the Avenida Nilo Peçanha viaduct	1/3	66	34	ICB	7,505	IV/98
29	Construct the Benjamim Constant viaduct	1/1	66	34	ICB	5,500	III/00
30	Relocate electricity lines and install lighting	3/1	66	34	LCB	1,960	I/98
31	Signage, traffic lights and control systems for the Perimetral	3/1	66	34	LCB	1,423	I/99
32	Carry out works to upgrade basic infrastructure	9/1	92	8	LCB	21,000	I/98

ICB = international competitive bidding

LCB = local competitive bidding (not limited to bidders from member countries of the Bank)

ICB = international competitive call for proposals

LCP = local call for proposals (not limited to bidders from member countries of the Bank)]

LOGICAL FRAMEWORK
MUNICIPAL DEVELOPMENT PROGRAM FOR PORTO ALEGRE

Objectives	Indicators	Means of Verification	Assumptions
<u>Goal</u> → Increase well-being of the inhabitants of Porto Alegre			
<u>Purpose</u> 1. Efficiency of the municipal administration improved	<ul style="list-style-type: none"> - average time taken to complete five procedures cut by 50% - Paperwork reduced by 50% in the municipality - Tax return forms replaced by electronic filing - Payments by PMPA treasury reduced by 60% and majority of payments made through the banking system - 5,000 training events held for municipal officials 	<ul style="list-style-type: none"> - Monitoring by the Municipal Departments of Administration and Finance - Progress report on the program 	
2. Efficiency of agencies that provide sanitation, environmental control, road maintenance and road safety services improved	<ul style="list-style-type: none"> - DMAE's connection/employee ratio increased to 350, and unaccounted-for water reduced to 30% - 150 biggest industrial polluters monitored by SMAM - Preventive maintenance system in operation on at least 30% of the road system - Traffic accidents reduced by 30%, fatalities by 50% 	<ul style="list-style-type: none"> - Management report from the DMAE - Management report from the SMAM - Progress report on the program - Statistics from the SMT and the Health Department 	
3. Perimetral works and upgrading of basic infrastructure carried out	<ul style="list-style-type: none"> - North/south travel time reduced by 20% - Number of bus passengers that have to make stops in the downtown area, and have to pay an extra fare to reach their destination reduced by 80% - Congestion in downtown core reduced- Upgrading of basic infrastructure, including paving, drainage, water supply and, in some cases, sanitary sewerage built, benefiting 7,500 families 	<ul style="list-style-type: none"> - Statistics from the Transportation Department - Progress report on the program 	
<u>Purpose</u> → Modernization of municipal administration			
<u>Components</u> 1. Human resource management restructured	<ul style="list-style-type: none"> - Municipal government staff trained - New payment system for staff in place - Continuous training program for staff and system for evaluating productivity implemented - 40 staff trained in project preparation and analysis techniques 	<ul style="list-style-type: none"> - Progress reports on the program - Statistics from the Administration Department 	

Objectives	Indicators	Means of Verification	Assumptions
2. Operational management restructured	<ul style="list-style-type: none"> - Operating model for at least five activities deemed critical and which give rise to administrative procedures restructured - Pilot project for approving and licensing of building construction projects in the municipality in operation - Average time taken for approval and licensing of building projects reduced by at least 30% 	<ul style="list-style-type: none"> - Progress reports on the program 	
3. Administrative management model restructured	<ul style="list-style-type: none"> - New management information system (SIG) implemented - Management information available at all levels of PMPA management 	<ul style="list-style-type: none"> - Progress reports on the program 	
4. New technological infrastructure of the PMPA installed	<ul style="list-style-type: none"> - 2500 work stations installed 	<ul style="list-style-type: none"> - Progress reports on the program 	
<u>Purpose</u> → Modernization of the PMPA's fiscal administration			
<u>Components</u> 1. Organizational and operating model of the Municipal Finance Department including taxpayer services, restructured	<ul style="list-style-type: none"> - Master taxpayer register in operation - Procedures used by taxpayers to meet their tax obligations simplified - At least 90% of taxpayers receiving assistance in less than 10 minutes 	<ul style="list-style-type: none"> - Progress reports on the program - Finance Department Statistics 	
2. Procedures for tax filing assessment and collection reorganized	<ul style="list-style-type: none"> - Simpler return forms created and taxpayer information system expanded - At least 60% of payments being made by electronic means - Time taken to verify tax liability reduced by 50% - Delivery of taxpayer services decentralized and at least 50% of requests for service received by telephone, e-mail or fax 	<ul style="list-style-type: none"> - Periodic Finance Department reports - Progress report on the program 	
3. Municipal Tax Code drawn up	<ul style="list-style-type: none"> - Municipal tax legislation revised and consolidated 	<ul style="list-style-type: none"> - Tax Code published 	
4. Auditing system used by the SMF reorganized	<ul style="list-style-type: none"> - New methods and instruments for fiscal activity introduced - System to combat tax evasion (SAS system) in operation - Notebook computers purchased for use in field work 	<ul style="list-style-type: none"> - Monthly Finance Department report - Progress report on the program 	
5. Accounting and financial controls reorganized	<ul style="list-style-type: none"> - Integrated information system introduced with new standardized procedures for budgeting, accounting and financial performance - New integrated financial control model implemented 	<ul style="list-style-type: none"> - Finance Department report - Progress report on the program 	

Objectives	Indicators	Means of Verification	Assumptions
<u>Purpose</u> → Improved delivery of services to the population			
<u>Components</u> 1. Efficiency and quality of services provided by the DMAE improved	<ul style="list-style-type: none"> - Deliberating Council restructured as a regulatory and supervising body - Diagnostic study on current services provided by the DMAE carried out, and management contract signed - Unaccounted-for water reduced to 30% - Ratio of connections/employee increased to 350. 	<ul style="list-style-type: none"> - DMAE management report - Progress report on the program - Management contract signed 	<ul style="list-style-type: none"> - Municipal Legislative Assembly approves new law for social control of the DMAE
2. SMAM strengthened and providing improved service to the population	<ul style="list-style-type: none"> - Experts trained for environmental monitoring and control at the municipal level, and pollution control equipment purchased - Legal and financial framework created for outsourcing and billing for environmental control and inspection services devolved to the state government 	<ul style="list-style-type: none"> - Progress reports on the program - Agreements signed with the FEPAM 	
3. Road safety improved for pedestrians and riders on the public transportation system	<ul style="list-style-type: none"> - Accident log analyzed and critical points identified - Inspection of critical points in the road system carried out - Projects prepared and necessary corrections made - Signage equipment procured 	<ul style="list-style-type: none"> - Progress reports on the program - Statistics on accidents from the SMT and the Municipal Health Department 	
4. System of preventive maintenance for roads introduced	<ul style="list-style-type: none"> - Register of the road system completed by the end of 1999. - Preventive maintenance system in place by the middle of the year 2000 - Equipment procured by the end of 1998 - Preventive maintenance carried out on at least 30% of the municipality's road system by the end of 2002 	<ul style="list-style-type: none"> - Progress reports on the program 	
5. Bicycle path master plan drawn up	<ul style="list-style-type: none"> - Bicycle path master plan for Porto Alegre completed by the end of 1999 	<ul style="list-style-type: none"> - Progress reports on the program 	

Objectives	Indicators	Means of Verification	Assumptions
<u>Purpose</u> → Carry out road works on Perimetral III, and for upgrading of urban infrastructure			
<u>Components</u> 1. Road works on Perimetral III completed, including bus-only lane and related works	<ul style="list-style-type: none"> - 3,465-meter segment of the Perimetral completed by the close of 1999, including channeling of for Cascatinha creek - 9,100-meter segment of the Perimetral completed by the close of 2001 - 12,300-meter segment of the Perimetral completed by the close of 2002 - Special works projects (bridges at intersections of Av. Ipiranga, Av. Nilo Peçanha and Benjamin Constant, and grade crossing at Av. Protásio Alves) by the end of 2002 	<ul style="list-style-type: none"> - Progress reports on the program - Monitoring of the transportation system carried out by the Transportation Department and through field research 	<ul style="list-style-type: none"> - The expropriations and resettlements have been completed in good time
2. Basic infrastructure work carried out in locations selected by the community through the OP	<ul style="list-style-type: none"> - A total of 10 km covered in upgrading of basic infrastructure installed each year until 2002 along roadways selected by the OP, including paving, storm drainage, water supply and, in some cases, sanitary sewerage - Cost of carrying out upgrading of basic infrastructure reduced 	<ul style="list-style-type: none"> - Progress report on the program 	

PROPOSED RESOLUTION

BRAZIL. LOAN /OC-BR. TO THE MUNICIPIO DE PORTO ALEGRE
(Municipal Development Program for Porto Alegre)

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 Município de Porto Alegre, as Borrower, and the Federative Republic of Brazil, as Guarantor, for the purpose of granting the former a financing to cooperate in the execution of a Municipal Development Program for Porto Alegre. Such financing will be for the amount of up to seventy six million five hundred thousand dollars of the United States of America (US\$76,500,000), from the Single Currency Facility of the Ordinary Capital resources of the Bank subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" set forth in the Executive Summary of the Loan Proposal.