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ELEMENTS OF URBAN STRATEGY: A PROSPECTIVE VIEW

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1. INTRODUCTION

Today seven out of each ten Brazilians live in cities. A contrasting view with the picture of the early 40's, when such proportion was around three to ten. For the past forty years alone, the number of cities with population over one million increased threefold. Out of these emerged two cities with population over five million.

Such trends point out to the overrriding importance of urban policy in the overall context of social policy in Brazil. Of immediate concern and high visibility two questions are posed. First, the pressing problems of urban employment and income distribution. Also, the need to provide for additional urban equipment capacity for at lest four million new urban dwellers each year.

As with several developing countries, post - WWII economic policies in Brazil pursued initially the creation and expansion of an industrial infrastructure. This, throughout the 50's was also associated with the increasing state participation both in the provision of urban equipments and in those strategic sectors unhindered by private capital. Furthering such trends, during the 60's, towards modernization, led to increasing social and regional unbalances.

From the early 70's onwards cities became increasingly the aim of specific federal legislation, chiefly among these new laws, those pertaining to urban land-use, standard metropolitan areas and industrial zoning. Such initiatives, for most of the 70's and early 80's have not succeeded. Most

actions upon the urban space have maintained a strictly sectoral bent. The Federal Government despite its evident success in promoting specific policies - v.g. agricultural frontier expansion, provision of state-owned public utilities and urban equipment expansion - fell short of achieving a comprehensive action in the urban space.

2. CURRENT TRENDS AND CONSTRAINTS

Political and social pressure seem to work against maintaining a "sectoral profile" for urban policy. There is a mounting demand for a "new pattern of growth" with claims for specific policies toward fast reduction in urban unemployment (underemployment) and poverty. Such trend is coupled with growing mistrust of the merely corrective intervention in the urban space. Such overriding concerns notwithstanding, it is relevant to identify certain constraints operating against those desiderata.

For one there is the external constraint associated with the burden and impact of the foreign debt service. Both, the inducement to import control and the export of industrial commodities tend to reinforce concentration of production activities and population in some of the country's leading urban poles. Afterall, the end result of current policies for export promotion may likely be the strengthening of the "pattern of industrial concentration" which marked Brazilian development in the past.

Besides, an analogous perverse effect may be drawn from the process of fast modernization of the agricultural sector. The rapid growth of export crop production is based mostly upon technology and credit supply. This fosters migration and the displacement of the food-producing frontier. The net effect being a deleterious impact upon urban poverty via both the over-supply of unskilled labor and the real cost of food.

Another set of constraints pertain to the domestic impact of economic policies dovetailed to the foreign debt servicing. Deficit control in the huge public sector, for instance, contributes both to urban unemployment and to the furthering of industrial concentration. Also, the high interest rates tend to inhibit further expansion of urban public utilities and sets into motion a perverse chain of events connecting urban equipment, utilities rates and urban quality of life.

In short, national policies for urban development are bound to internalize the macroeconomic constraints and their spatial repercussions.

3. A LINE OF PROPER OBJECTIVES

The feasible policy space is posed by the macroeconomic constraint and the increasing political pressure for effective action in the urban employment/income/poverty sphere. Out of this quandary must emerge an urban policy consistent both with the national development policy and, simultaneously compromised with strategies for the reduction of social and spatial unbalances.

The first requirement, namely consistency with current and projected macroeconomic praxis, is to be met by three kinds of actions:

(i) Greater efficiency for use of the financial means available, with increasing emphasis placed upon socially relevant programs and projects;

(ii) Prioritizing those programs and projects able to reduce the perverse impact of macroeconomic policies upon the urban space;

(iii) Integrating public policies aimed at reducing unbalance in the distribution of population and production.

Urban policy will be, naturally, focused upon its own set of goals. Such are, for instance, the objectives for spatial redistribution of employment and income. This means effective action to be construed around basic guidelines such as: (i) preventing the furthering of problems in those high-growth urban areas; and, (ii) increasing life-quality patterns and

expanding the consumption of social equipment in cities. These aims will be read and placed differently along the different action-spaces. These may be roughly put as: metropolitan areas, medium-sized cities and expansion frontiers, and small towns.

3.1 METROPOLITAN AREAS

Economic recession in the recent past has had a perverse impact upon the available capacity and operation of most urban equipments. Besides, the migratory implications of macroeconomic practice tend to reinforce an accumulated deficit in the provision of social urban goods. Such defficiency brings about a trend towards voice and socio-political unrest. If not properly taken care of, this situation might pose challenges to the country's political stability and current democratic practices. Urban poverty per se is the outstanding metropolitan problem. Roughly 90% of the Brazilian urban population below the poverty line is placed in the nine Standard Metropolitan Regions (SMR).

3.2 MEDIUM-SIZED CITIES AND EXPANSION FRONTIERS

A frontal attack to urban poverty is to take place in the SMR's space. Nevertheless a basic preventive action should attribute priority to medium-sized cities and expansion frontiers. A central idea to this is the reduction, or at least the delaying of immigration flows to the SMR's. These are responsible for no less than 50% of the net metropolitan demographic

growth. Besides the strengthening of the economic base a re-ordination of the settlement process in the agricultural frontier will be required.

3.3. SMALL TOWNS

Chiefly among the problems facing small towns may be suggested:

(i) As an outgrowth of past and present federal fiscal policies small towns suffer a chronic lack of financial resources to face local problems, particularly as they require, increasingly, capital and technical skills;

(ii) An inherent weakness of the tools available to town government to manage local land-use;

(iii) Lack of qualified local staff;

(iv) Excessive centralization, at the Federal and State level, in the decision-making processes pertaining to investment and operations of local social equipment;

(v) Absence, in the formal structure of local government, of channels for effective community participation.

4. URBAN STRATEGY: SOME BASIC ELEMENTS

Some basic elements for urban strategy formulation are firstly to be looked upon according to two basic parameters: (i) The interdependence among so-called urban and general macroeconomic policies; (ii) The speed of response by the "policy object" to the action undertaken.

Social problems, as object for intervention, are often multi-causal; In such circumstances, state action requires the interfacing of different policies springing from several agencies.

In the Brazilian context, the Ministry of Urban Development and Environment (MDU) faces complex social problems exposed in the country's urban space. Drawing from past and current trends certan strategic guidelines can be suggested:

(i) Territorial Reorganization - Here lies a set of highly inter-dependent policies, placed into a long-run context, but aiming at the gradual counterpoint to the past and current trends toward industrial concentration;

(ii) Urban Employment Generation and Income Redistribution - Here Federal government policies may have an effective leverage, particularly as related to the housing, transportation and basic sanitation sectors;

(iii) Urban Environment and Life Quality - Besides the supply of basic goods a specific action upon the urban environment will be required.

National urban policymaking in a federally organized country is a complex task. More so in the context of an extensive and spatially unbalanced urban space. In such an endeavor certain basic strategic aspects are to be summoned:

First, macroeconomic goals, explicit policies, trends and current praxis must be taken into effective consideration for urban policymaking. To further this point a better grasp is needed of the spatial impact of certain macroeconomic policies - v.g. national energy policy, fiscal/tributary redistribution among different government levels, etc. Drawing from such knowledge and consistent with the basic conceptions for the national urban space certain actions will be properly designed. These for the time being will tend to be remedial and alternative rather than complete achievements.

Second, despite the very complex nature of national spatial policymaking in the federal state, a clearly-defined, politically-supported set of objectives for spatial (urban) reorganization is to be maintained and timely set against current and prospective macroeconomic policy.

Third, despite the relevance of long-run spatial (urban) objectives for territorial reorganization it is important to stress the immediate importance of social equity goals for effective urban policymaking.

Fourth, as far as such short and middle-run objectives for urban policy are concerned a greater degree of initiative and responsibility is to be transferred by the federal to state and local government. This is to be achieved both by an effective tributary redistribution among different government levels, and also by a stronger role to be played by states and cities vis-a-vis regional/local investment priorities.

Fifth, the effective urban management is to be achieved through greater intervention by state and local governments.

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MINISTÉRIO DOS TRANSPORTES
EBTU
Empresa Brasileira dos Transportes Urbanos

EBTU/IBRD Programs in the Urban Transport Sector

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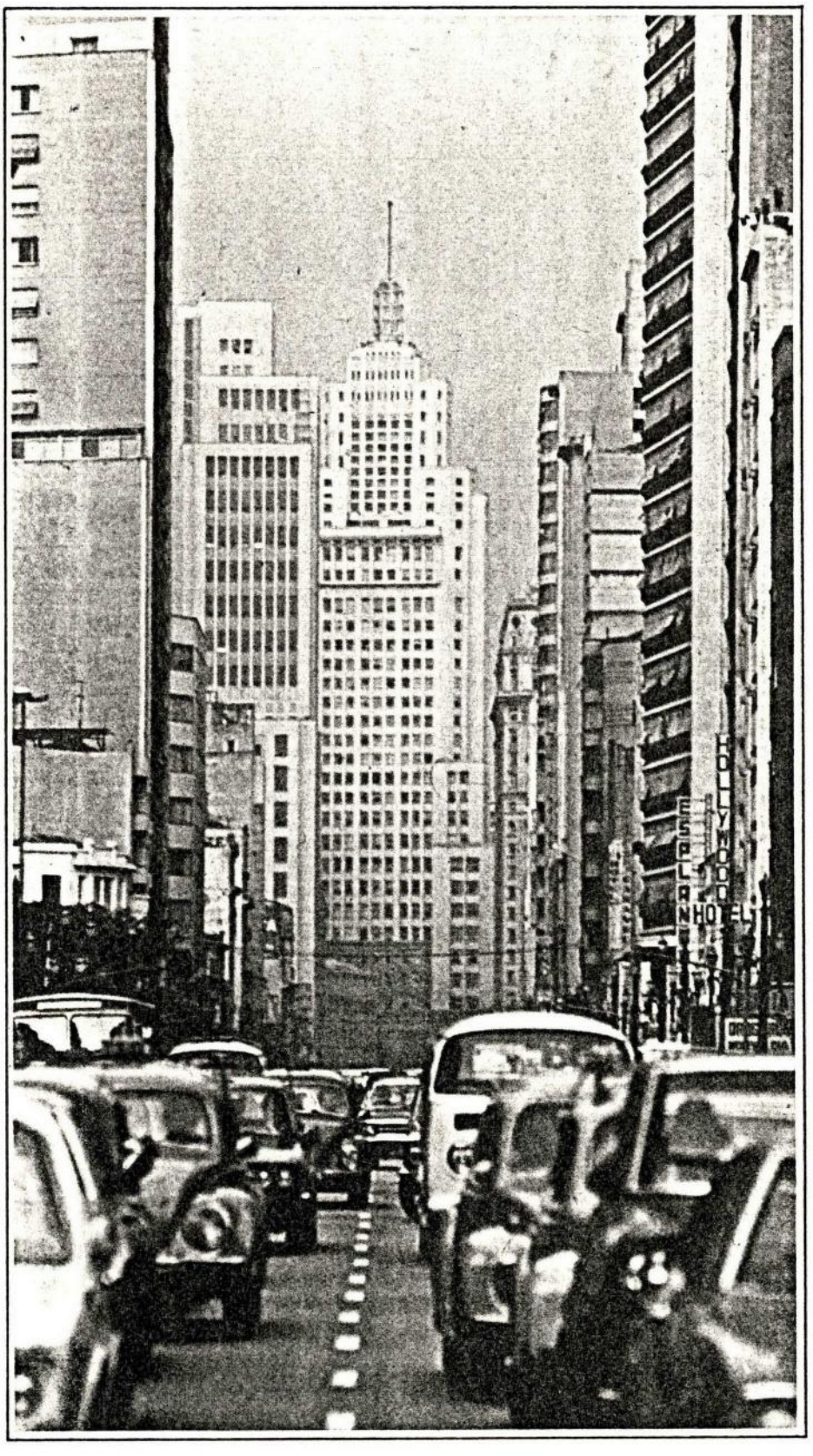


INTRODUCTION

In recent decades, the dominant economic and social model in Brazilian society has been characterized by an intense and growing process of urbanization. In thirty years, the population expanded by a factor of 2.3 (51.9 million in 1950 to 121.1 million in 1980). During the same period, the urban population increased by a factor of 4.4 (almost double the rate of growth of the total population) rising from 18.8 million to 82.0 million.

These data demonstrate that there has been a turnabout in the distribution of the Brazilian population in the urban and rural areas of the country. In 1950, only 36.2% of the population resided in the urban areas, as against a full 67.7% in 1980.

The result of this extremely rapid process of urbanization is a demographic structure marked by the concentration of the population in several points of the national territory and by the consolidation of the Metropolitan Regions and Urban Agglomerates. In the period from 1950 to 1960, the overall population of the MR and Agglomerates expanded by 5.17% and 4.83% per year, respectively, while the population of the country increased at an annual rate of 3.2%. In the following ten years (60/70), the overall population increased by 2.9% per year, while the growth of the MR dropped to 4.66% and that of the Urban Agglomerates climbed to 5.25%. In the 70/80 period, the rate of growth in the MR was 3.8%, while that of the Urban Agglomerates closed at 5.8% and the

population as a whole increased by 2.47% per year, thus characterizing a situation of declining overall growth and the continuation of the trend towards urbanization. In 1950, only São Paulo and Rio de Janeiro had more than one million inhabitants. In 1980, all of the MR had surpassed that figure.

Even more important is the fact that the growth of the Brazilian Metropolitan Regions has occurred in an unordered fashion in the intraurban spaces, particularly in the peripheral areas of the large cities. On the other hand, it is a well known fact that the complex of services utilized collectively by the population is, at least in the large cities, of essential importance to the population and particularly to the low income population: transportation, sanitation, housing (including water and sewage networks, electricity and other urban services) as well as such vital services as education, cultural activites leisure and health.

In the process of Brazilian urbanization, these collective services are either inexistent or precarious. Among these, those of transportation and housing have been seriously impaired by the manner in which most of the urban nuclei have expanded. In most of these cases, the cities have expanded in such a way as to leave immense open spaces that have been retained for highly speculative purposes, leaving ever greater distances between the downtown and peripheral areas of the cities. In terms of their spatial configuration, most

Brazilian cities are highly segregated and rarefied in such a way that the worker population has only been able to settle in localities devoid of infrastructure and/or far from their places of work. This fact, of course, has been particularly punishing for the low income population.

It should also be mentioned that, as part of this same process, emphasis has been given to the automotive industry as most of the country's cargo transportation has been moved onto highways. At the same time, individual transportation has increased sharply in the cities, despite the fact that mass transportation is still the principal means of travelling within cities. At the end of the 1970s, mass transportation - particularly buses - accounted for 70% of urban travel.

However, these vehicles are insufficient in quantity, lacking in the necessary conditions in terms of technology, safety and comfort, travel on congested streets and are forced to compete with individual and cargo transportation for road space.

Aside from this, the existent road infrastructure used by mass transportation systems does not have the conditions to meet circulation demand, and thus requires enormous investments to be adapted to the volume of traffic.

In the light of these problems and considering the importance of urban transportation in the process of occupation and utilization of urban space - without neglecting the impact

of the transportation system on the balance of payments since the accentuated increase in oil prices - the Brazilian government has decided to give special attention to this sector.

Founded in 1976, the Brazilian Urban Transportation Company was charged with the responsibility of formulating a national policy for the sector, planning the transportation system in the nation's major urban centers and aiding in making the Federal Government's National Fuel Efficiency Program feasible.

In this context, National Urban Transportation Policy has sought to ensure that transportation will be an element of support to the full development of the diverse urban functions and improvements in the quality of life of the urban population, particularly the less fortunate low income groups. The fundamental guidelines of the policy are: efficiency - seeking to define the types and operational systems most suited to transportation needs and available resources; equitableness - equality of service to the different population groups and social justice, seeking to utilize transportation as an instrument of income redistribution.

Four strategies have been implemented in the pursuit of these objectives. The first are corrective in nature and characterized as short and medium-term, while the latter are preventive, and characterized as medium and long-term:

a) more efficient energy consumption;

b) maximum utilization of the potential of existent systems, through maintenance, restoration and re-equipping of the physical and operational infrastructures;

c) expansion and improvement of urban transportation systems in their institutional, planning, physical, operational and technological aspects;

d) integration of urban transportation and the use of urban land.

As part of this policy, EBTU has encouraged the elaboration of urban transportation studies in the Metropolitan Regions, capital cities and medium-sized cities, while providing financial support to the implementation of the recommendations of these studies.

On the other hand, the sectoral problems that have been defined in these studies are so great that they will demand immense efforts and financial resources from all concerned parties, at the federal, state, metropolitan and municipal levels, before a truly critical situation is reached.

In the light of this picture, EBTU took the decision to contract credit operations with IBRD, so as to guaranty the necessary and unpostponable investments demanded by the urban transportation sector.

In this context, it was in 1978 that the first urban transportation programs were carried out in Brazil with the assistance of the Brazilian Urban Transportation Company - EBTU and the World Bank - IBRD.

Three separate loans were signed as part of these programs, involving overall resources of US$ 667 million.

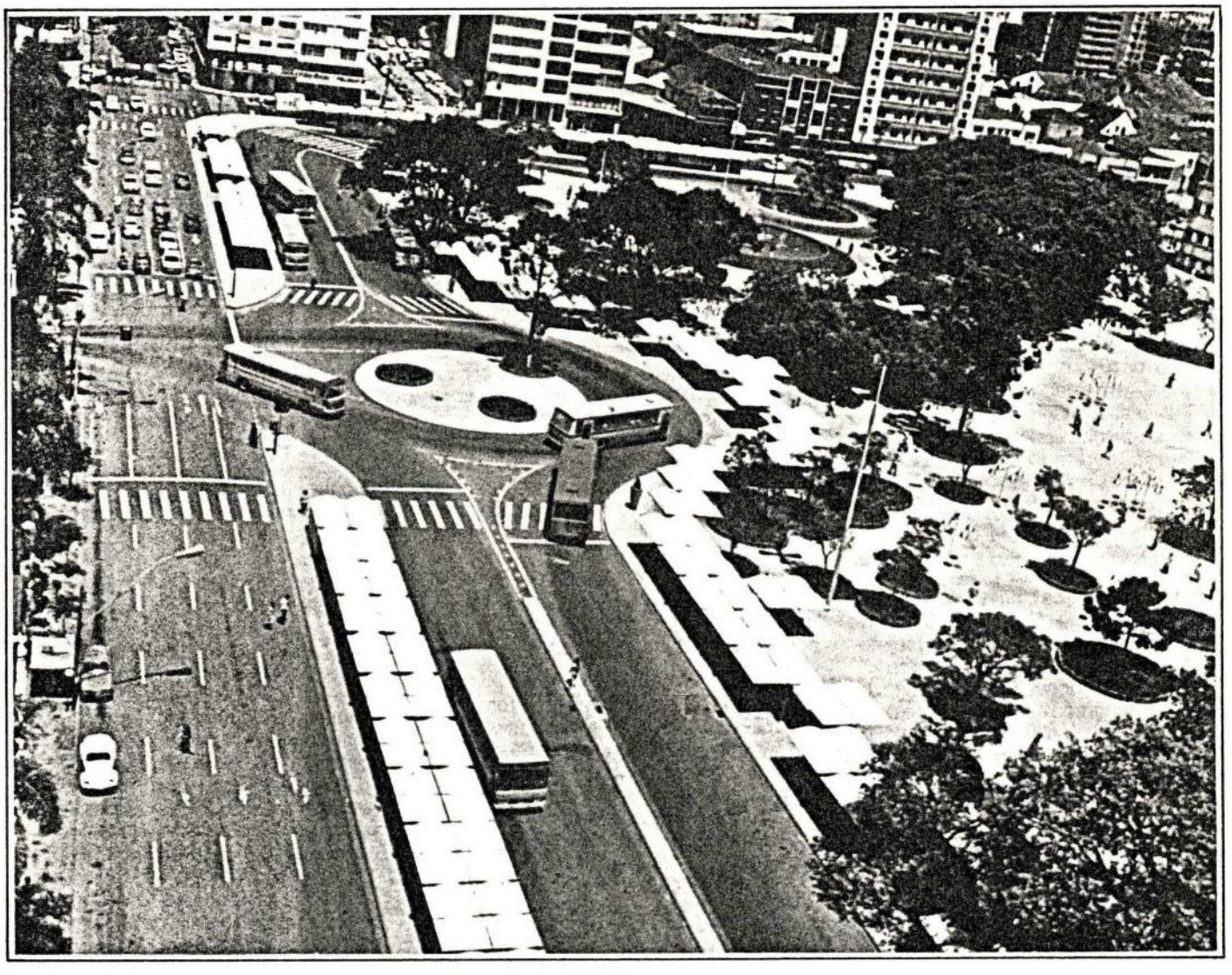
The first of these was targeted to different measures in five Metropolitan Regions. The second limited itself exclusively to the implementation of the first stage of the Porto Alegre metropolitan train system. The third involved measures in the Urban Agglomerates and Medium and Small Cities.

In generic terms, the objectives of these programs are closed connected with the operational efficiency of public transportation, the institutional organization of local governments and of EBTU, as well as the technical quality of the human resources in the different public entities at the three levels of government, particularly as regards the areas of planning, management and operation.

Looking back on the EBTU/IBRD programs, while taking account of the difficulties encountered during the process of implementation as regards some of the specified objectives, it can be concluded that these programs brought considerable benefits both to government institutions and to the urban areas in which they were implemented.

One very positive result was the improvement of the road infrastructure. As a consequence, it became possible to stamp a more ordered and efficient character on the operations of public transportation. The skill and organizational

improvements introduced into government institutions contributed greatly to the implementation of the National System of Urban Transportation. New technologies were introduced in the pursuit of alternatives that better corresponded to the circulation and transportation characteristics of Brazilian cities.



EBTU/IBRD PROJECT I

(Loan nº 1563 – BR)

The objective of EBTU/IBRD Project I was that of activities in the area of urban transportation concentrated in five Metropolitan Regions, each one of which was specified into a subproject: Porto Alegre, Curitiba, Belo Horizonte, Salvador and Recife.

In this sense, the Project was conceived as an instrument capable of accelerating the implementation of projects and services in the transportation sector in some of the nation's major urban centers.

At the same time, EBTU was convinced that the participation of governmental organizations, at the metropolitan and local levels, would lead to the internal restructuring of these entities which are part of the National System of Urban Transportation, thus making them more efficient instruments for the implementation of national policy in this sector, while preparing them for the tasks of analysis, implementation, operation and evaluation of projects at levels of international caliber.

In each one of the subprojects, resources were composed on the basis of sources, obeying the following criteria:

EBTU: 35% of the investment total, utilizing resources from the then existent FNDU/FDTU - National Urban Development Support Fund, sub-account of the Urban Transportation Development Fund. These resources are managed by the company and transferred to the States and Municipalities on

a no-return basis.

STATES AND MUNICIPALITIES: 30% of the investment total, utilizing resources from the state and municipal budgets, as well as others from the FNDU.

IBRD: 35% of the investment total, in the form of financing provided to EBTU, through disbursements of shares corresponding to the stages of the project already concluded.

Overall investments in EBTU/IBRD Project I came to US$ 250,000,000 (two hundred and fifty million dollars)

1. Objectives of the Project

The objectives of the project are based on those defined in National Urban Transportation Policy and can be summarized as follows:

(a) The financing of investments capable of improving the urban transportation services, with emphasis on the services rendered in the area of mass transportation;

(b) Furthering and supporting the elaboration and implementation of suitable urban transportation policies;

(c) The strengthening of municipal, state and federal capacity to prepare, evaluate and execute urban transportation projects.

To these objectives, one should add the following:

(a) Supplementation of the resources of local government and EBTU in such a way as to adapt the transportation systems

of the selected urban areas to the minimum travel needs of their respective populations;

(b) Enhance the quality of the peripheral road systems of the urban areas, in those residential districts in which the low income population is concentrated. This was to be done through projects involving the paving and draining of the roadways utilized by mass urban transportation vehicles;

(c) Provoke and accelerate the process of alteration in terms of the modal division then existent, in such a way that, over a short period of time, the participation of mass urban transportation could be increased in terms of the overall travel in these regions;

(d) Making feasible the measures proposed in the National Program of Fuel and Lubricant Conservation, particularly, in terms of the restructuring of vehicle traffic in the city centers, the reorganization of parking areas and the discouragement of the use of private vehicles;

(e) Make feasible the operation of the National System of Urban Transportation (SNTU), which is to be planned and conducted by local organizations prepared for this purpose, under the national coordination of EBTU and in coordination with other local and national institutions of urban development.

Despite changes in the economic situation, the

substitution of government teams at all levels and even the modification/alteration of some of the project components, these objectives remained unaltered during the entire period of Project implementation - July 1978 to March 1984.

2. Implementation Experience

The Project called for the implementation of a program of mass transportation improvements through the opening of transportation corridors with exclusive bus lanes, the installation of transfer terminals for mass transportation vehicles, the elimination of critical traffic points, the installation of traffic control equipment, residential district terminals and the paving of residential district penetration corridores.

Another component was the paving of roads in low income area. The roads in question are the so-called feeder roads already utilized by mass transportation. Together with the services of paving, rainwater drainage systems and curbs were also installed so as to eliminate the problems of dust and mud.

Initially, the period for this project was defined at 30 months, starting on 07.01.78 and ending on 12.31.80. However, for a series of reasons, the project consumed a total of 70 months, and was only concluded at the end of the first quarter of 1984.

The fact that the program took a longer than expected period of time did not apply to all aspects. While some components of the subprojects did indeed demand a longer than projected period of implementation, others were concluded in periods only slightly longer than originally expected. In general, these differences can be attributed to varying levels of managerial and executive capacity among the entities responsible for the implementation of each one of the subprojects.

By way of information, the table below indicates the conclusion dates of the different subprojects included in EBTU/IBRD Project I.

TABLE I

EBTU/IBRD PROJECT I

Subprojects, their conclusion dates

and periods of implementation

SUBPROJECT	CONCLUSION DATA	TOTAL PERIOD OF IMPLEMENTATION
A - Belo Horizonte	Feb/84	68 months
B - Curitiba	May/83	59 months
C - Porto Alegre	Apr/83	58 months
D - Recife	Jun/84	72 months
E - Salvador	Jun/84	72 months
F - Tech. Assist.	Mar/84	69 months

Among the reasons that can explain some of the deviations from the original implementation programming, the following deserve mention:

- when the EBTU/IBRD Project I was initiated, the entire Belo Horizonte Subproject, which had substituted that of the Metropolitan Region of Rio de Janeiro and was the last to be included, was still in the stage of elaboration of the engineering draft projects. The first projects were only concluded six months later and had immediate repercussions in terms of project initiation and cost alterations, since these costs had originally been estimated at the level of draft projects and then modified when the final projects were finished;
- The other subprojects were initiated with the final engineering projects still in the stage of elaboration, thus causing further delays in the beginning of the project;
- The components of each subproject were negotiated during the period extending from 1977 to the beginning of 1978, with state and municipal directors whose mandates ended at the beginning of 1979. Since the effective start of the project occurred in mid-1978 with the elaboration of the final projects, the initiation of work coincided with the inauguration of the new administration.

In some cases,the inexistence of medium and long-term urban planning and transportation structures, as well as

the different priorities defined by the new government administrations had direct impact on the implementation of the subprojects:

- The need for expropriations before the execution of the project, coupled with delays in the definition of the areas concerned as areas of public utility and, finally, long delays in the elaboration of the expropriation processes;
- Another factor was the need for restructuring the water, light, telephone, etc. infrastructure networks, which produced delays in some areas. One aspect that further aggravated this problem is that these services are the responsibility of concession companies that were not always in a position to give the desired priority to the restructuring of these services;
- Due to the IBRD guidelines, those components possessing electronic elements and were thus to be acquired through international bidding procedures were very difficult to implement, such as in the case of the PCCS-Program of Centralized Traffic Signal Control, in Belo Horizonte;
- Difficulties were also encountered in the implementation of measures of an institutional nature defined in the Project: alterations in project components or the transfer of responsibilities from one organization to another, alterations in the relations between the organization that grants authority and the concessionary companies and the

operators of the mass transportation systems were carried out only after considerable delay and difficulty;

- The fact that the project was metropolitan in nature - applying to five distinct metropolitan regions and numerous municipal areas in each one of them - produced a large number of intervening institutions, both at the management and executive levels. Each of these had their own specific characteristics, which were not always compatible with the practises of IBRD nor fully qualified to carry out their specified responsibilities;

Insofar as modifications in the Project components are concerned, they occurred in practically all of the Subprojects. When the PCCS was eliminated in the case of Belo Horizonte, another component - that of Av. Cristiano Machado - was expanded well beyond that originally planned. In Curitiba, in the light of the project simplifications introduced into some terminals - thus reducing the unit costs - it was possible to increase the number of terminals initially projected, while also paving an additional extension of roads in low income areas, without any significant impact on the overall implementation period of the Subproject. In Porto Alegre, it was possible to expand the paving program in low income areas utilizing the resources originally stipulated in the Subproject. In the case of Salvador, the final project of an urban terminal specified in the Subproject - that of Lapa -

was expanded due to the demands of the municipal government which was of the opinion that that specific terminal should not only be larger but should also serve functions not originally projected. The additional resulting costs of expansion were assumed by the municipal administration of Salvador.

3. Development Impact of the Support Provided

The major impacts that the project had on urban development were as follows:

(a) The practical demonstration for both the population and the local management and executive institutions of the five metropolitan regions of the fact that investments such as those channelled through EBTU/IBRD Project I, coupled with the definition of priorities in the sector of urban mass transportation - the use of exclusive bus lanes, the paving of roads through which the urban bus lines pass in the low income districts of the cities - are quite efficacious in terms of the resolution of the major transportation problems and the disciplining of the use of road space and urban land. All of this brings concrete benefits to the majority of the population over the short and medium-term.

In this sense, these interventions have a direct influence on the population and on local government, by the

fact that it places them in a position to give continuity to these services and further improve their urban transportations system, with emphasis on mass transportation.

(b) A significant increase in the level of services provided by the urban mass transportations system was rapidly perceived by the users. These improvements were particularly evident in terms of greater comfort and reliability for the users in the urban peripheral areas, caused by the paving of the streets used by the regular bus lines; reductions in travel time and increased transportation safety, as a consequence of the adoption of exclusive bus lanes; and, in some cases, even reductions in transportation fares, as a consequence of the reordering of operations and the reduction of the operational costs of the transportation systems.

Perceptions as regards the impacts of the Project tend to lead to a consensus that - despite the difficulties encountered and the delays that occurred - the Project represented a very significant step in the evolution of the urban mass transportation system in five major metropolitan regions - Belo Horizonte, Curitiba, Porto Alegre, Recife and Salvador - as well as the consolidation of the planning and management structures of the transportation systems in these localities.

By way of example, one should mention the gains

in operational capacity registered on the Assis Brasil corridor in the Metropolitan Region of Porto Alegre. This corridor is served by bus and transports as many as twenty three thousand passengers per hour, which is equivalent to the passenger volume on a pre-subway train system. The operational method utilized in this corridor is the COMONOR type, composed of ordered bus convoys.

With respect to the question of fares, an analysis of the situation both before and after implementation shows that there was an average reduction in the range of 20% in the case of some urban fares. These reductions were registered as a consequence of reductions in fuel consumption, of variations in the weights of the operational cost components and in changes in average commercial speed.

However, with the advent of the second oil crisis, coupled with the profound Brazilian economic recession, the gains that had previously been repassed to the low income users of the transportation system were gradually lost in the overall context of the economic difficulties faced by the nation. In other words, beginning in the 1980s, the advantages that had been gained as a consequence of the alterations in the fuel consumption profile lost their significance when considered in the light of the value of the diesel oil consumed in the daily operations of urban transportation in Brazilian cities.

However, at the same time, one should emphasize that if the decision to implement the urban transportation corridor program - IBRD I - had not been taken, the consequences on the value of fares would not only have been highly negative but would have had an almost tragic impact on the low income users of urban transportation.

Another element which should be considered in this evaluation of reductions in fares is the normative action undertaken by EBTU with the local management institutions as regards the determinations of the fare calculation system and the administration of fares.

Therefore, it is our belief that significant social benefits were produced by the reductions in the operational costs of urban transportation, despite the fact that the significance of these reductions was offset by the factors described above - namely, the Brazilian economic and social situation which, in the decade of the 1980s, entered a stage considered critical.

On the other hand, the chart presented below provides an estimated view of the gains that were obtained through the implementation of the transportation corridors in the five Metropolitan Regions served by EBTU/IBRD PROJECT I.

Metrop. Region	Fuel Savings (BET/Year)	Time Savings/V. ($H/10^6$ Year)	Operat. Cost Reduc. %/1000 km)	Reduction of Accid.	
				Deaths	Injured
Belo Horizonte	35,516	50.6	5.5	15	141
Curitiba	12,252	20.9	6.4	53	130
Porto Alegre	22,183	37.4	5.9	63	165
Recife	28,962	38.6	5.7	18	173
Salvador	6,445	20.6	6	27	215

Five Metropolitan Regions Where Project EBTU/IBRD I Was Implanted

EBTU/IBRD PROJECT II

(Loan nº1839-BR)

EBTU/IBRD Project II had the objective of implementing the first stage of the Porto Alegre Metropolitan Train System.

1. Objectives of the Project

EBTU/IBRD Project II had the following principal objectives, that can be separated in three major categories: (i) institutional, (ii) operational and (iii) urban development.

(i) - Institutional:

- Organization and structuring of TRENSURB, a company founded in mid-April 1980 with the purpose of implementing and operating the Metropolitan Train system.

(ii) - Operational:

- A significantly more efficient modal distribution of traffic;
- More efficient utilization of all of the available transportation facilities in the north-south corridor of the Porto Alegre Metropolitan Region, through the transfer of the greatest possible number of automobile users and a significant share of the intermunicipal bus users to the urban railway system, through the conversion of some of the bus lines into feeder lines,

thus permitting the maintenance of other longer haul lines.

(iii) - Urban Development:

- Contribution to the implementation of a strategy of utilization of metropolitan land with the development of selected centers of economic growth along the north-south corridor, by encouraging the development of activities in the areas of specific train stations along the corridor.

As part of EBTU/IBRD Project II, six studies on urban transportation were carried out in the following areas:

- Restrictions on the Utilization of Automobiles in the Metropolitan Region of Porto Alegre;
- Study of Existent Bus Lines;
- Identification of Areas for Appropriate Commercial Development, in Varying Localities Along or Near the TRENSURB Line;
- Updating and Review of the Master Plan on the Use of the Land of the Metropolitan Region of Porto Alegre;
- Economic and Financial Feasibility Study and Possible Extension of the System to Novo Hamburgo;

- Definition of the Levels and Structure of the Fares of all of the Transportation Modes of the Metropolitan Region of Porto Alegre, including the rates to be charged in the peripheral parking areas, and others.

2. Implementation Experience

Implementation of the project was initially programmed for a period of 52 months, starting on 09.05.80 and concluding on 12.31.84.

Due to a number of problems and difficulties not originally foreseen, the system is now in operation though several services and projects are either being implemented or still to be implemented, particularly as regards the centralized and sectoral control of traffic and the automatic ticket equipment.

Some of the problems noted in the implementation of this project are noted below:

- In the elaboration of the engineering and architectural projects, a number of problems and errors were registered in terms of the topographical surveys of the boundaries of the area of domain and of the geological surveys.
- Some of the technical specifications for the acquisition of materials and equipment were elaborated in a faulty manner, while others were

incomplete and, in some cases,unsuitable by the fact that they centered on systems already considered obsolete at the time.

- The option for the implementation of the system in the available area of domain - the former rail line - created a number of problems of greater or lesser gravity, involving questions ranging from urban segmentation to difficulties in terms of the operational integration of the train-bus systems.
- On the other hand, damage has been caused to the urban network as a result of the passage of the new train, since in such urban areas as Canoas, Esteio and Sapucaia, the train passes at very short intervals in a manner that totally blocks movement. Consequently, in these localities, the urban fabric is segmented into separate compartments, making it difficult for people, vehicles and goods to move among the sectors divided by the rail line. The residents of these areas are separated, as a result of the line, from some of the basic services, such as hospitals, schools, and so forth.

On the other hand, one should emphasize that the operation of TRENSURB before implementation of the automated

operation control, automatic ticket system, cable ducts, drainage gutters, stairs and access systems and internal communications system among the different stations constituted a negative factor in terms of the implementation/ operation process. One should also take note of the fact that when TRENSURB was founded, its objective was the implementation of the urban rail system. Only later did it assume the tasks of operations and this, of course, demanded modifications in its organizational structure, responsibilities originally attributed to specific sectors of the organization, training needs and the modification of the responsibilities of its technical staff, support personnel and the contracting of additional personnel for the execution of the new responsibilities.

In institutional terms, a number of problems deserve mention:

- The integration of the bus-train systems into a trunk-feeder line system, with the elimination of intermunicipal bus lines running parallel to the train route, has been delayed by the inexistence of decisions at the metropolitan level,
- Aside from this, at the level of the implementation of the recommendations of the complementary studies carried out within the scope of EBTU/IBRD Project II, a number of instutional problems

were observed, to the extent that the adoption of measures to restrict the use of automobiles in the area of influence of TRENSURB - thus forcing a change in the existent modal structure and raising the level of train demand - is the specific responsibility of the municipal authorities of the Metropolitan Region.

Therefore, only if the municipal authorities understand and agree that these measures are necessary and even priority in nature, will they then adopt them. The problem is that they are facing the risk of attracting the ire of private automobile users, if they finally do decide to restrict parking areas or hamper access to certain areas of the city on the part of the automobile.

Within the context of the present metropolitan power structure, the relationship between measures that have to be taken at the local level and the feasibility of a federal railway project, has made it quite difficult for TRENSURB to attain its stated objectives, by the fact that, within this structure, efficacious mechanisms and sources of pressure do not exist that would be capable of provoking the implementation of the necessary measures.

Some aspects connected to the bidding procedures have also had a negative impact on the implementation schedules of TRENSURB. Among these, mention should be made of the following:

- One aspect for which the Bank is responsible is that related to the demand that international bidding procedures be hald for the execution of the building projects to be financed by the Bank.

It is our belief that these demands should be revised, in cases involving large scale countries with reasonably well-developed economies, particularly in those in which the construction industry is marked by the presence of a variety of companies that are well qualified to carry out the tasks at hand. This is particularly important when the projects are not sufficiently large to attract the participation of foreign based firms. In the case of countries like Brazil, the continued demand for international bidding procedures for highway and railway projects in urban areas results in unnecessary delays in the bidding process (longer periods for the presentation of proposals , etc.) and produces no real benefit for the borrower country.

At the same time, the institutional questions consequent upon the creation of a new operative agency should also be studied and defined. This should be done with the participation of all of the levels of government active in the region, through the creation of the necessary legal instruments that will make it possible for each of the respective levels to meet its responsibilities in such a way that, when

the system finally does come on line, questions of an institutional nature will no longer exist for, at that point in the flow of events, these questions are evident impediments to correct operation.

3. Development Impact of the Support Provided

The major impacts that the Project has had on urban development are as follows:

3.1 - Negative Impacts:

- In terms of the services now offered to users in comparison to those offered by the previous bus system, TRENSURB introduced a system on which a segment of demand is forced to shift between bus and train transportation in a manner that is not always favorable to the users. This is due to the project of the stations and has created situations in which the two means of transportation must now be used by persons who formerly utilized the bus system to go directly to their place of destination.

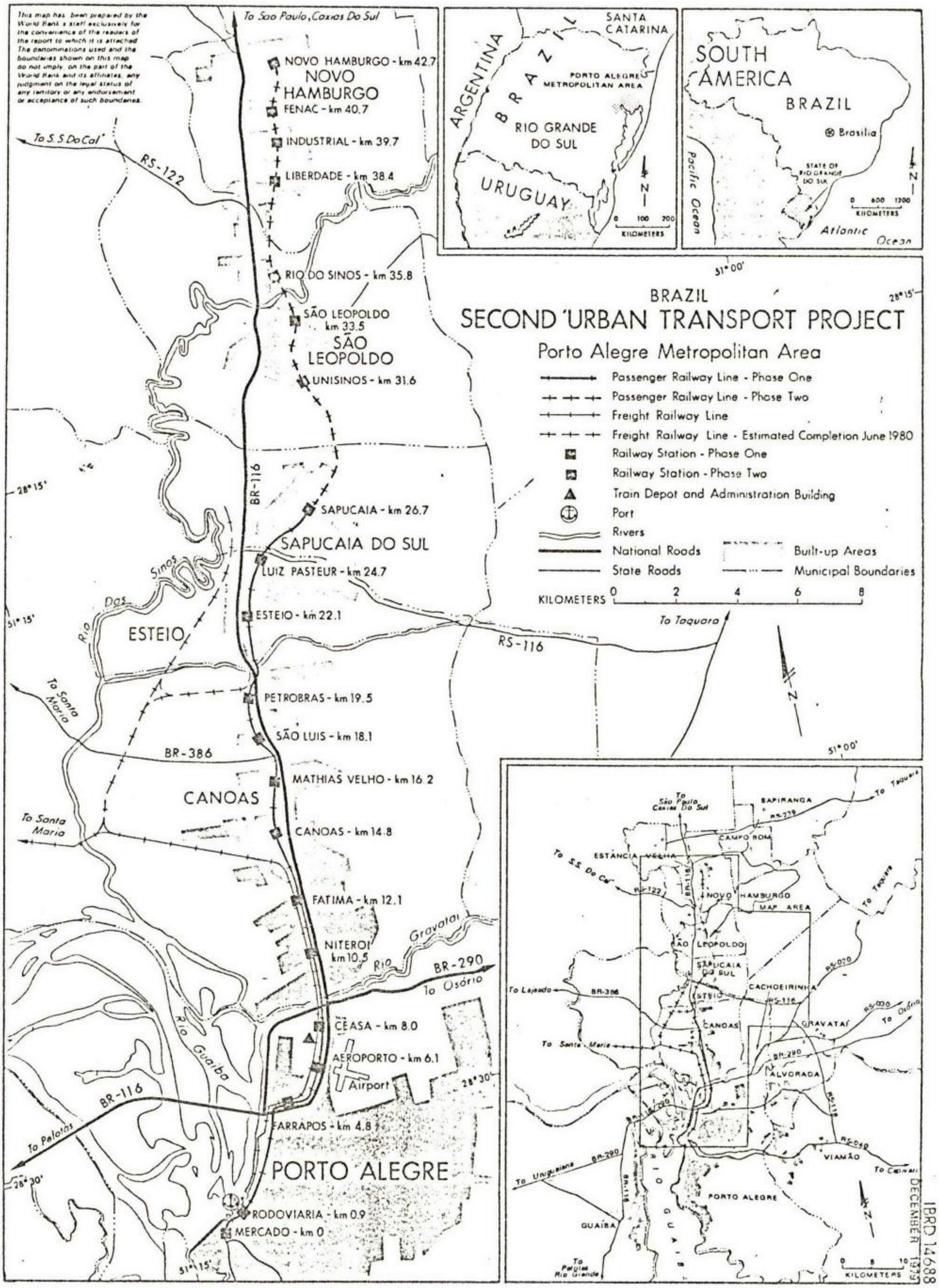
3.2 - Positive Impacts

The major positive impacts consequent upon the initiation of operations of TRENSURB were as follows:

- Reduction of the transportation costs of those utilizing the system, as a result of the lower fares charged by TRENSURB. In comparative terms,

a trip from Canoas to Porto Alegre by train costs Cr$ 800 (US$ 0.11), while the same trip costs the user Cr$ 1.400 (US$ 0.20) by bus. At the same time, a trip from Sapucaia will cost the same fare of Cr$ 800 (US$ 0.11) for the user, while the same trip by bus will cost Cr$ 2.000 (US$ 0.28). These reductions in transportation costs have produced savings for the users in the range of 45% to 60% in terms of their overall outlays on this sector of services.

- Increase in the level of service provided to users: greater comfort, greater reliability of the system, the possibility of shortening travel time, elimination of congestion and its impact on travel time, increased vehicle cleanliness, improved facilities and greater safety.
- Enhanced value of the areas located near the new stations and the creation of urban development centers in the surrounding areas.
- Generation of new employment opportunities in the operation of the system and the training of manpower for this purpose.



This map has been prepared by the World Bank's staff exclusively for the convenience of the readers of the report to which it is attached. The denominations used and the boundaries shown on this map do not imply, on the part of the World Bank and its affiliates, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.
BRAZIL
SECOND URBAN TRANSPORT PROJECT
Porto Alegre Metropolitan Area
Passenger Railway Line - Phase One
Passenger Railway Line - Phase Two
Freight Railway Line
Freight Railway Line - Estimated Completion June 1980
Railway Station - Phase One
Railway Station - Phase Two
Train Depot and Administration Building
Port
Rivers
National Roads
State Roads
Built-up Areas
Municipal Boundaries
KILOMETERS 0 2 4 6 8
To Sao Paulo, Caxias Do Sul
NOVO HAMBURGO - km 42.7
NOVO HAMBURGO
FENAC - km 40.7
INDUSTRIAL - km 39.7
LIBERDADE - km 38.4
RIO DO SINOS - km 35.8
SÃO LEOPOLDO km 33.5
SÃO LEOPOLDO
UNISINOS - km 31.6
SAPUCAIA - km 26.7
SAPUCAIA DO SUL
LUIZ PASTEUR - km 24.7
ESTEIO - km 22.1
ESTEIO
PETROBRAS - km 19.5
SÃO LUIS - km 18.1
MATHIAS VELHO - km 16.2
CANOAS
CANOAS - km 14.8
FATIMA - km 12.1
NITEROI km 10.5
CEASA - km 8.0
AEROPORTO - km 6.1
Airport
FARRAPOS - km 4.8
PORTO ALEGRE
RODOVIARIA - km 0.9
MERCADO - km 0
To S.S. Do Cai
RS-122
BR-116
Rio Das Sinos
To Santa Maria
BR-386
To Santa Maria
Rio Guaiba
Rio Gravatai
BR-290
To Osório
To Taquara
RS-116
To Pelotas
28°15'
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28°30'
51°00'
28°15'
51°00'
28°30'
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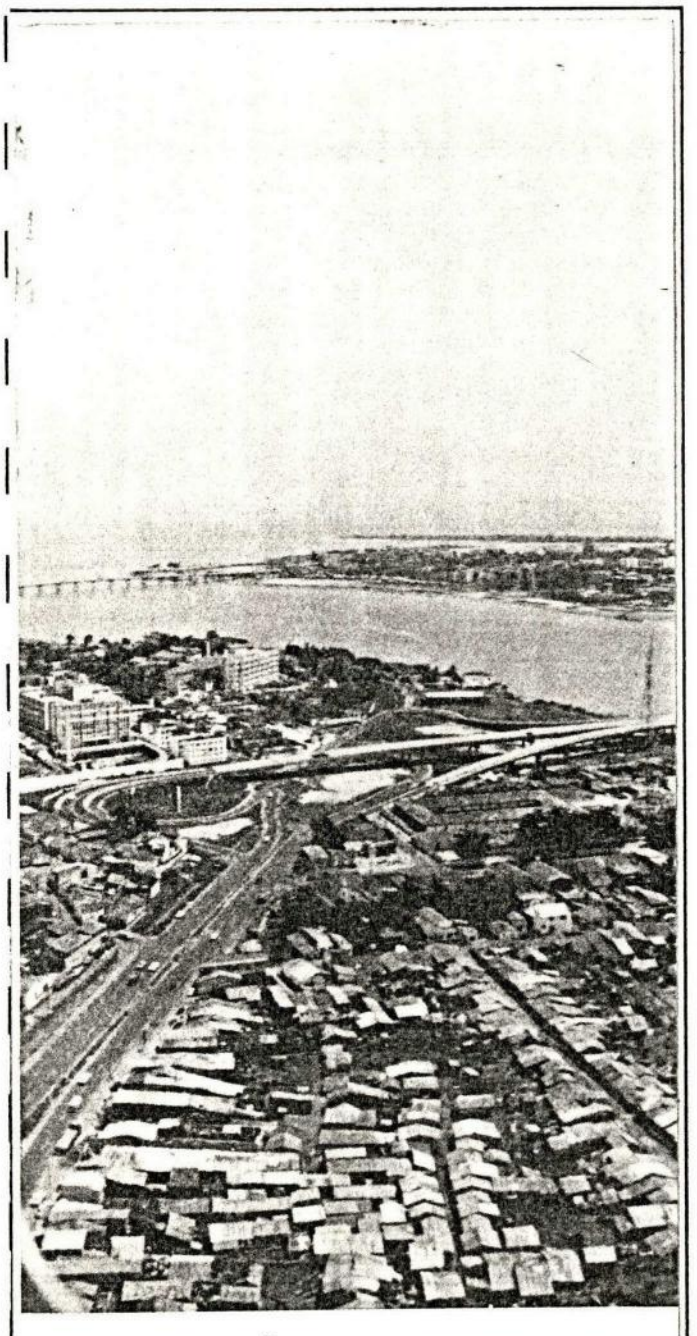
SANTA CATARINA
ARGENTINA
BRAZIL
PORTO ALEGRE METROPOLITAN AREA
RIO GRANDE DO SUL
URUGUAY
0 100 200 KILOMETERS
SOUTH AMERICA
BRAZIL
Brasilia
Pacific Ocean
STATE OF RIO GRANDE DO SUL
Atlantic Ocean
0 600 1200 KILOMETERS
To São Paulo Caxias Do Sul
SAPIRANGA
To Taquara
CAMPO BOM
ESTÂNCIA VELHA
To S.S. Do Cai
RS-122
NOVO HAMBURGO
MAP AREA
To Taquara
SÃO LEOPOLDO
SAPUCAIA DO SUL
CACHOEIRINHA
To Lajeado
BR-386
ESTEIO
RS-116
CANOAS
GRAVATAI
To Osório
To Santa Maria
BR-290
ALVORADA
VIAMÃO
To Capivari
To Uruguaiana
BR-290
BR-116
PORTO ALEGRE
GUAIBA
To Pelotas Rio Grande
0 5 10 KILOMETERS
IBRD 14688
DECEMBER 1979



AGLURB

PROPAV

EBTU/IBRD PROJECT III

(Loan nº 1965-BR)

The tasks of structuring and evaluating the Third Urban Transportation Project - IBRD III - were carried out during the course of 1980 and were presented in a final Evaluation Report in February 1981.

The Agreement between EBTU and the World Bank was signed in 1981, and Project III was subdivided into three subprojects:

- Institutional - organizational restructuring and training of the EBTU technical staff;
- Urban Agglomerates - AGLURB - taking in a total of 14 distinct urban groups;
- Paving in Low Income Areas - PROPAV - taking in a total of 500 km of paving of streets in cities with more than 50 thousand inhabitants.

In April 1984, EBTU elaborated an IBRD Adjustment Proposal in which it proposed the extension of the final date of the loan from 06.30.86 to 12.31.86, considering the financial balance existent at the time, the inclusion of four additional urban agglomerates, the expansion of the institutional subproject to the Local Systems of Urban Transportation and the restructuring of PROPAV resources to include AGLURB, without altering initial objectives.

IBRD agreed with the proposed modifications and, considering the expansion of the physical goals, new activities were implemented.

In the original project, IBRD participated at a level of 35%, EBTU with 32.5% and the states and municipalities with 32.5%. In the new agreement, these percentages were changed to 35.0%, 34.0% and 31.0%, respectively.

In a second stage, the Institutional Subproject was characterized by the Preparation of Local Management Organs of fourteen cities, by means of the following components:

- Structuring and Improvements;
- Physical and Operational Improvements;
- Personnel Training;
- Studies and Projects:
- Systems of Information on Urban Transportation: SITURB.

1. Objectives of the Project

The project was structured around two principal objectives:

- Improvements in the transportation infrastructure and services;
- Improvements in the operational efficiency of EBTU and the local SNTU organs.

2. Institutional Subproject

2.1 - Objective of the Subproject

- improve the operational quality and efficiency of EBTU, in terms of programming, evaluation and

supervision, thus preparing the central organ of the National System of Urban Transportation in a more efficient manner, so that it will be able to fully implement activities in the areas of coordination and technical assistance;

- improve the managerial quality and efficiency of the local organs, in terms of their procedures specific techniques;
- improve the National and Local Systems - SNTU and SLTU of Urban Transportation;
- aid in making local authorities more sensitive to the problems of urban transportation and to the need for their cooperation with the SNTU.

With respect to SITURB, these systems are characterized as instruments of support to the management functions of bus transportation at the national and local levels.

At the local level, SITURB has the following functions:

- support to the franchising power;
- fare administration;
- control of operation;
- supervision of services; and
- programming of services.

At the national level, it has the following functions:

- aggregate information at the local level;
- physical-financial control of EBTU investments;
- providing of such other information as a reference file on land use and a file on industrial producers of inputs.

2.2 - Implementation Experience

- implementation was delayed significantly since the subproject called for the training of personnel to exercise functions on the basis of the new structure of EBTU.

When the implementation of the new structure was postponed, it became necessary to alter the schedule, though some activities independent of the process of restructuring were carried out. After restructuring was completed, a survey was carried out of the needs of the different areas of EBTU in the initial stage of implementation of the new program.

- Later, with the redistribution of available resources, it became possible for EBTU to extend the program to the local organs of 14 cities.

In some cases, difficulties of an institutional nature were faced, such as the lack of persons and institutions responsible for the implementation of this subproject, as well as the lack of personnel sufficiently prepared and experienced to implement the training project.

Insofar as the implementation of SITURB is concerned, a first version was implemented with large scale computers. The chart below shows the results of this stage.

CITY	SITUATION
Recife	- totally implemented
Fortaleza	- almost totally implemented
Salvador	- almost totally implemented
Belém	- partially implemented
Teresina	- partially implemented
Natal	- partially implemented
João Pessoa	- partially implemented

At a later date, a second version was prepared based on microcomputers, and including medium size cities with fleets of up to 400 buses.

This version was based on a concept of administrative decentralization and the recovery of the authority of the local governments. This latter facet was not considered in the first version by the fact that it had little flexibility and was based on CPP's, thus establishing a state of dependence on local management organs.

In the implementation of the local SITURB's, a number of difficulties were encountered. In some localities, more than one organ was responsible for the management of the

SLTU's. This made it impossible to reorganize the local administration due to the lack of a political decision-making process, thus leading to delays in the implementation schedule.

However, in those places in which implementation did take place, the level of the local management institutions was quite high. It can even be stated that, even in those places where implementation did not take place, the level of management improved considerably as a result of the efforts made in terms of implementation. This was particularly true in the cases of reference files, data surveys, and management routines, etc.

With respect to the National SITURB, the volume of the information inflow was initially very large as a consequence of its centralized nature. At the present time, the process of gathering operational data is being redefined, so as to simplify the system and stamp a more decentralized character upon it.

2.3 - Development Impact of the Support Provided

- In the cities in which the project was implemented, it produced positive results with regard to the policy of fuel consumption reductions and institutional development, as well as direct benefits for the population, particularly as concerns improved services and the reduction of accidents.

Going on to the training of the personnel of the local management organs, those who participated in the training are considered fully qualified to elaborate the structures of the new projects and to provide overall support to development, despite the fact that, due to the political changes that occurred during the period, some technicians did not remain in the functions for which they had been trained.

3. Subproject - AGLURB

3.1 - Objectives of the Subproject

The principal objective of AGLURB is that of improving the infrastructure and operations of transportation in medium size cities, particularly those very close to one another, with emphasis on measures aimed at lowering the costs in areas of urban poverty.

The following items can be listed as the specific objectives of the subproject:

- improvements in the physical characteristics of the streets connecting the city centers to the low income urban areas;
- enhanced public transportation bus services;
- restructuring and more efficient operation of local management organs in the transportation sector.

The project is a component of the physical, cir-

culation and administrative structures of the urban areas.

At the local level:

- ensure maximum social benefits to the low income population;
- reduce the consumption of petroleum derivatives;
- optimize the existent urban road system.

At the level of executive agents:

- improve the operational quality and efficiency of the local transportation management organs;
- train technical teams in the management methods, processes and routines of the local organs.

Despite alterations in the physical goals, the objectives have not been modified.

These objectives should be seen as part of the general strategy of supply support to the process of urban development, through their integration with the objectives of other urban development sectors, since one of the basic criteria for the selection of the AGLURB's was the existence of a Land Use Master Plan.

3.2 - Implementation Experience

The projects were evaluated in their economic, technical and social aspects. Initially, it was determined that the projects would be implemented in areas in which 70% of the population had an income level of up to three times the

minimum monthly wage. Later, this criterion diminished in terms of its importance.

It should be mentioned that, in some cases, the states and municipalities have not been able to bear the financial burdens of the Subproject.

For this reason, it can be stated that the project has not achieved its original goals. Though this conclusion is generally applicable, there are some cases in which reductions in most of the originally proposed physical goals became necessary. Among the factors that contributed to this situation, we could cite political decisions on the part of local governments, interruptions in the financial flow, administrative problems in the sector itself and changes in government.

3.3 - Development Impact of the Support Provided

In this context, one should give emphasis to the structuring of the Agglomerates in terms of their road networks and circulation, as well as the strengthening of local management organs. This became possible as a result of a new mangerial awareness that brought about substantial changes in the political-administrative approaches of the local governments, which began to concentrate their efforts on the pursuit of improved level of quality of life, reductions in travel time, safety and comfort and the utilization of local materials, technology and manpower.

4. Subproject - PROPAV

PROPAV is an essential social program that is designed to bring direct benefits to the low income populations, while it also seeks to restructure urban space through the paving of the street network used by the buses to gain access to areas of poverty in which family income does not go beyond the level of three times the minimum monthly wage. This program is reserved for those cities in which the resident population is equal to or greater than fifty thousand inhabitants.

In 1984, in the light of the fact that financial balances remained from the implementation of the first stage, the Metropolitan Regions of Belém, Belo Horizonte, Porto Alegre, Recife, Salvador, São Paulo, and Campo Grande, Capital of the State of Mato Grosso do Sul, were included, though the basic objectives and criteria of the program were maintained.

4.1 - Objectives of the Subproject

At the national level, the objective of the subproject was to enhance the quality of life of the low income population in as large as possible a number of Brazilian cities.

Local objectives were defined as the structuring of peripheral areas and the reduction of the operational costs of bus transportation, thus making possible reductions

in the fares charged; expansion of the labor market, through the utilization of types of paving that would demand the application of intensive local manpower; encouragement of the use of local paving materials.

4.2 - Implementation Experience

In some of the participating cities, changes in local administration occurred during the period, thus provoking delays in the execution of the physical schedule.

In the southern and northeast regions, adverse climatic conditions, such as floods, partially or wholly destroyed already completed projects and led to the necessity of rebuilding.

The lack of federal and local matching funds resulted in delays in the originally established schedules.

At the same time, several alterations were introduced as regards the types of paving to be used.

The budgets that had been structured for the projects did not take account of cost readjustments, thus occasioning reductions in the initially projected physical goals.

The type and, in some cases, the very materials to be utilized in the project were not encountered in sufficient quantities to make the project feasible.

4.3 - Development Impact of the Support Provided

Though still not totally implemented, the project

has produced some rather visible results with respect to social development.

It has stimulated the reorganization and expansion of the efficiency of local management organs; expanded the peripheral urban road network, thus enhancing the accessibility of a larger share of the population to social and economic activities and services; by training local human resources in new paving techniques, it has had a ripple effect in terms of the development of urban areas in a variety of different regions of the country.

The project is still in the stage of implementation, though it has already surpassed the initially forecast goal of 500 km of paving. The overall total at the moment is 640 km.

From the social point of view - including the structuring of the urban areas, an enhanced level of transportation services, increased accessibility to the periperal areas, and other elements - the impact of the project has been highly positive. However, note should be taken of the fact that increased accessibility into certain low income urban areas has also resulted in higher property values and the consequent economic pressures and expulsion of a substantial share of the former population.

4.4 - Lessons as Regards Urban Support; How to Improve the Impact of Support

Involvement of the community in the process of selection of the road segments to be paved, since this is a project of direct interest to the community.

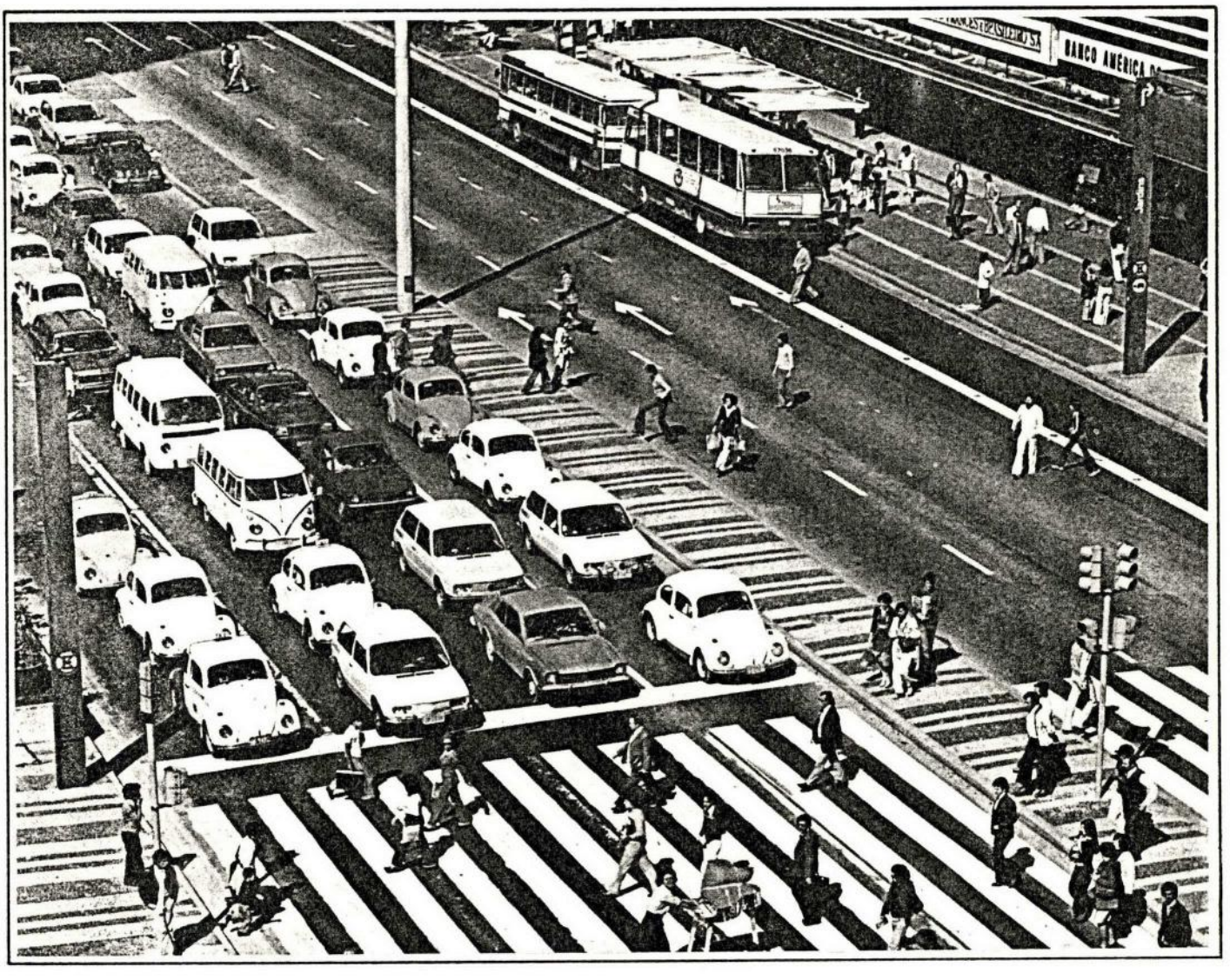
Reduction in the number of stages in the flow of financial repasses, making it possible to create a direct relationship between EBTU and the local executive agent of the project.

Improvements in the technical-functional skills of the human resources of the local executive agents of the project.

Seeking greater utilization of local alternative materials and technologies, capable of generating employment opportunities for the semi-skilled local workers.

Community involvement and improved technical-functional skills of the local human resources are factors of the utmost importance for the process of planning and programming future projects.

Places Where AGLURB Project Was Implemented



FINAL CONSIDERATIONS

One should acknowledge the fact that, despite the investments that have already been made in the urban transportation sector - both with and without the participation of the World Bank - problems still exist, many of which are not only deep-rooted but also wide-ranging.

For example, the System of Urban Passenger Transportation is going through a period of crisis that can be characterized by chronic imbalance between the payment capacity of users and the high costs of producing the corresponding services. These imbalances have existed for many years and, on the one hand, have been caused by government errors in the management of passenger transportation and, on the other, by the inadequate application of policy in the social and economic sectors, with direct repercussions on the sector of transportation.

Even with the measures that have recently been implemented with the purpose of improving operational conditions, it must be stated that these conditions are still not those desirable. This fact in itself has contributed to chaotic occupation of urban space, a lack of integration among sectoral policies and high costs in the production of goods and services for the sector of urban transportation. Aside from this, deficiencies in the public sector's control and supervision of the system as a whole (road system and public system of passenger transportation) has often resulted in

losses in the economic and social efficiency of urban transportation.

On the other hand, by not giving sufficient and adequate priority to the sector of public passenger transportation, the quality of the services provided by the mass transportation systems has seriously deteriorated. This is evident in the reduction of the commercial speed of vehicles and consequent increased travel time, irregular schedules and growth in the size of the fleets needed during the rush hours.

The importance of the problem becomes even more accentuated when one considers that, in 1980, daily trips within the nine Metropolitan Regions totalled 44.6 million, and that, in 1985, this figure is expected to rise to 58.0 million. Of this total, approximately 73% of these trips are made by bus, train and subway. Despite the distances and traffic congestion that affect all of the inhabitants of the nation's large cities, the wear that results from hours of travelling within the large cities has a particularly strong impact on the workers who live in the innumerable peripheral areas of the large urban centers. Studies carried out on the São Paulo Metropolitan Region indicate, for example, that there are large segments of the working class that are forced to spend up to two hours on each trip from home to work and from work to home. As a consequence, these workers spend up to four hours per day on the vehicles used in the public system of passenger transportation.

It could even be said that the current users of mass transportation are financing a significant degree of inefficiency, resulting in a drainage of resources that are potentially productive but are being used in investments in an underoptimized sector. One could also state that the user is doubly burdened by the fare that he has to pay and by the physical efforts involved in urban travel.

Aside from this, one cannot ignore another aspect of the social dimension of the problem. In many cases, mass transportation represent more than 20% of the minimum monthly wage, since fare increases have often been imposed at levels higher than the wage increases of workers, thus producing an imbalance that tends only to increase. As a consequence of this situation, one can note some decline in overall demand, particularly in the low income areas of the cities. Consequently, people are forced to walk with increasing frequency, thus reducing their mobility and marginalizing them in relation to work and leisure opportunities.

On the other hand, in the past three decades, a series of urban contradictions have appeared, caused not only by the old problems aggravated by increases in the population, but also by the transformations that have taken place at the very heart of the State. With these transformations, people now present their grievances directly to the government, thus producing a political dimension previously inexistent.

In recent years, Brazilian society has been going through a process leading to greater discussion and awareness of existent problems and the need for solutions, and this is particularly true among the residents of the large cities. The solution to problems of a social nature is highly political in content, since such solutions must take account of the necessity of providing greater space in an already conflicting and contradictory stage for the low income population. To the extent that the control of the State over the civilian population is attenuated, the population's demand for solutions tends to increase.

In the larger urban areas, the mobilization of public opinion is, to a great extent, already channelled into the pursuit of public services and the defense of improved standards of living. This situation is most strongly felt in those sectors of the population where there is a direct relationship between available income and access to the infrastructural and social services produced and/or generated by the State.

The above considerations point to the fact that the political, institutional and social aspects of mass public transportation go well beyond any cold and purely economic analysis of the sector, making it possible to predict that collective reactions will be forthcoming as a response to repressed needs and aspirations.

These concerns come together to form an overall picture of difficulties of a social nature, demanding immediate actions on the part of the Government. New and more efficient programs and projects must be implemented, based on the policies and objectives of the New Republic in the area of urban transportation, above all in those areas in which the problems are most heavily concentrated and where substantial investments of financial resources are needed.

In this context, current demands and the results obtained through previous EBTU/IBRD Programs point to the necessity for new programs. It is precisely with this in mind, that the two institutions are negotiating a 4th Program, called EBTU/IBRD IV, which has been given priority standing by the Brazilian Government among the many social programs it intends to intitiate before the close of 1986.

Through this Program, EBTU and IBRD intend to give continuity to already initiated activities, completing and reviewing those already carried out and expanding the variety of actions, both as regards the type of projects to be implemented and the urban areas to be included.

Thus, EBTU/IBRD Program IV for the Sector of Urban Transportation will be implemented in all nine Metropolitan Regions of Brazil. It is a wide-ranging investment plan that will seek to reorder public transportation, with the overall goals of implementing and maintaining the trans-

portation infrastructure, improving the institutional framework and management of the system, implementing new and more suitable technologies that will have direct repercussions on operational performance, the reduction of operational costs and the substitution/reductions of traditional petroleum derivatives, while also giving due attention to the development of human resources. All of this, of course, will be solidly based on studies, research and technical assistance to the sector.

The aim of EBTU/IBRD Program IV is to introduce significant improvements into a substantial share of the components of the National Urban Transportation System - SNTU, thus facilitating the travel of an urban population of more than 40 million people in the nine Metropolitan Regions - now the stage where one of the nation's most intense social and economic problems is centered. And the circulation of individuals is both cause and effect.