GLOBAL ELITE AND LOCAL CITIZENS: WHO GAINS WITH THE OF GUANABARA BAY CLEAN-UP?

MANUEL A. P. SANCHES
Institute of Philosophy and Social Sciences - IFCS
Federal University of Rio de Janeiro – UFRJ

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INTRODUCTION

When, in the middle of the 1930’s, the Graf Zeppelin\(^1\) filmed Guanabara Bay for enraptured Europeans, some uninformed American documentaries still showed Brazil as a German colony. There was a lot of politics and little truth in this. Vargas\(^2\), on the eve of war, was negotiating with the Americans and Germans and weighed the advantages that he could obtain for Brazilian industry. Finally, with American financing, the Brazilian state constructed its Companhia Siderúrgica Nacional - CSN (national ironworks company) whose steel would be used in the growth of public works and the cities, and, in the 50’s, would permit the advent of the Brazilian automobile industry. In the 90’s, the CSN, symbol of an era, would be privatized as a clear representation of the dismounting of the state politics of Vargas.

With their base in the iron production of CSN, located in the state of Rio de Janeiro, more than 8000 industries were being expanded over six decades, beginning in the valley of the Paraíba River, 75% of which would be installed closer to the consumer market, in the basin of Guanabara Bay, around the city of Rio de Janeiro. After the end of World War II, and with the creation of Petrobrás and the automobile industry being fixed firmly in place, the Guanabara basin sheltered the Duque de Caxias refinery and after that, 18 petroleum terminals of various companies. The industries took advantage of the presence of basic input, of the proximity to the consumer market and the cheap labor that, from 1940 until 1980, migrated in mass to the metropolitan areas, and in particular, to those metropolitan areas of Rio and São Paulo, in search of employment.

Table 1 – Population by geographic area

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>State</td>
<td>3,611,998</td>
<td>4,674,645</td>
<td>6,709,891</td>
<td>8,994,802</td>
<td>11,291,520</td>
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<tr>
<td>MR*</td>
<td>2,231,527</td>
<td>3,181,529</td>
<td>4,874,619</td>
<td>6,891,521</td>
<td>8,772,265</td>
<td>9,814,574</td>
<td>10,192,097</td>
</tr>
<tr>
<td>Basin**</td>
<td>3,822,421</td>
<td>5,486,239</td>
<td>6,917,844</td>
<td>7,655,252</td>
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</tr>
<tr>
<td>City</td>
<td>1,174,141</td>
<td>2,377,451</td>
<td>3,307,163</td>
<td>4,251,918</td>
<td>5,090,700</td>
<td>5,480,768</td>
<td>5,551,538</td>
</tr>
</tbody>
</table>

Sources: IBGE, CIDE, JICA; * Metropolitan Region; ** Guanabara Bay Basin

Since the 70’s, and especially with the Stockholm Conference of 1972, the environmental question of Guanabara Bay began to mobilize the local and international interest. The World Health Organization - WHO, acting as the executive agency of the United Nations Developmental Program - UNDP, and in cooperation with local organizations, called attention to the presence of the two refineries in the basin, to the population and industrial density of the area, and to the consequential environmental and economic risks (O’Connor and others: 1977). The depollution\(^3\) of the Bay, however, only began to be a theme of international financing after the institutional changes that occurred in Brazil beginning in the 90’s, with the implementation of the politics of liberalization of the market, similar to those implanted in the U.S.A. and in Great Britain in the 80’s.

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\(^1\) German dirigibles that crossed the Atlantic in the 30’s were known by the names of their creators.

\(^2\) Glutei Vargas led the overthrow of 1930 and governed the country until 1945. In 1950, he returned to power, elected by a direct vote and governed until 1954 when he committed suicide in the face of dramatic political pressures.

\(^3\) I prefer to use the neologism depollution instead of clean up or recovery to maintain the idea that this neologism creates in Portuguese.
The Inter-American Development Bank - IDB - and the Japanese agency Overseas Economic Cooperation Fund – OECF announced, during Rio’s Earth Summit in June of 1992, that they would finance the Depollution Program of Guanabara Bay – PDGB. The first resources were liberated at the end of 1994, a little after the implementation of the Real Plan and the signing of the agreement renegotiating the Brazilian debt in the international market. The program had a push in the period from 1995 to 1998, that corresponds to the first government alliance of the Brazilian Social Democratic Party - PSDB and the Liberal Front Party - PFL, parties of the center and the right which sustained the federal government of Fernando Henrique Cardoso and the state government of Marcello Alencar. In this period, there was spent in work and consultation costs around $350 million with the PDGB.

On January 18th, 2000, less than five years after the effective initiation of the program, a rupture in one of the pipes of the Petrobrás refinery caused a leakage of 1.3 million tons of oil, affecting the poorest population of the region and the mangrove trees of Guapimirim, an environmentally-protected area. The relations between development and the environment, between the State and market, and the questions over which institutions are equipped to better protect the poor and nature in a world of free trade - central themes of Earth Summit 92 - reappear as basic elements for the comprehension of governmental programs such as the PDGB.

The objective of this paper is to discuss these questions. To do so, the text is organized in three parts: 1) the organizational network of the decisions, where there are described the connections between the multilateral investment organisms and the local organisms responsible for implementing the program; 2) the alteration of the institutions and the external Brazilian debt, where there is discussed the changing of the institutions, one of the objectives proposed by the IDB for the PDGB, as a consequence of the general economic program instituted in Brazil beginning with the renegotiation of external debt; and 3) the overlapping of social and political structures, where there is analyzed the subjecting of the local market to international market (a consequence of the decisions of the global elite) and the exclusion of a portion of consumers (the poorest) who, as citizens, are paradoxically, important votes for the implementation of local public politics.

1 - THE ORGANIZATIONAL NETWORK OF THE DECISIONS

Initially, it is necessary to describe the different international, national, state and local organizations (public or private) involved in the decision and implementation of the PDGB and to show that, although there is a pre-dominance of international organizations, this pre-dominance only occurs because the ruling groups of the national, state and local organizations participate with the same interests, and form with the international organisms an interdependent network and set of ideas (Hall, 1996, 1993) that allows the decision and the implementation of the program. The international organizations dominate because they are those who impose the conditions for financing. The hegemonic part of the ruling group from the other organizations (national, state and local) accepts these conditions because they benefit from them. In fact, in the level of the ruling groups, the distinction between international and local is only significant from the political-electoral point of view because the international bureaucrats are not submitted to any electoral process of choice. From the economic point of view, or of the consequences of policy decisions, there exists a unity among these elite co-opted by companies linked by subsidiaries, franchises, licenses, representations, joint-ventures and various other forms of financial interdependence (Vernon, 1983: 191-216; Vernon et al., 1995). This unity also exists to a significant degree in the different bureaucracies and in the ruling elite when we

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4 There is an extensive bibliography about the elite and bureaucracy that begins with Max Weber (texts chosen and translated into English by Gerth and Mills in 1946) and Gaetano Mosca (1939). Although classic, these authors constructed their theories about the elite based on national questions. In the American case, the same is true of the classic book of
think about the entirety of ideas that direct the action in the sense of withdrawing from the state in favor of the market, by privatization, using third parties and the flexibilizing of urban public services. Clearly, bureaucracy is not a monolith but the divergent part is removed from the positions of decision or even from the positions that influence the decision.

The PDGB was and has been the result of a joint involvement of: a) different bureaucracies of multilateral or international agencies, such as the Inter-American Development Bank – IDB, the Overseas Economic Cooperation Fund - OECF, the Japanese International Cooperation Agency – JICA, the United Nations Program for Development – UNPD; b) national directors of bodies such as the Interministerial Commission on External Finance – COFIEX, and its executive secretary, the Department of International Affairs of the Ministry of the Economy – DEAIN, the Brazilian Agency for Cooperation – ABC; c) state actors, within and out of the state government administration, such as the Foundation of Environmental Engineering – FEEMA, the Company of Water and Sewage – CEDAE, the Superintendence of Rivers and Lakes – SERLA; d) municipal actors such as the Municipal Company of Urban Cleaning – COMLURB and the Institute of Planning – IPLANRIO, both of the city of Rio de Janeiro, and other bodies from other municipalities of the Guanabara basin. Besides these entities, all of them managed by a public bureaucracy, we could also mention consulting companies, public works and services companies, national or international, interested in different components of the program. As much in the public interest as in the private interest, the language of economic consensus, even among engineers and biologists, solidified the idea that it was necessary to reformulate the institutions (it is worth saying to privatize and to be opened up to the international market) so that the PDGB would be implemented with efficiency. This language was the same for the negotiations of external debt and of the construction of the Real Plan\(^5\) (Loureiro, 1997), as will be seen later.

This network of communications and of the interdependence among the directors of these bodies took hold over a period of months, with the actors being involved at various times and for different periods. Here it is necessary to make a distinction between the actors - the entities, businesses, or groups (including the ruling bureaucracy) that present an identity of action - and individuals with the power of decision or the power to influence a decision that make each entity as well and the totality of these entities act in unison according to their common set of ideas. The decision of these individuals is molded by alternative conceptual schemes (Graafstein: 1992) in which they participate or with which they are confronted. The decision to depollute Guanabara had as a backcloth, before, during, and after the beginning of the PDGB, the United Nations Conference on the Environment and Development – UNCED, the Earth Summit 92. Although there was not a direct and explicit relationship between Earth Summit 92 and the PDGB, the conference allowed the program to acquire an aggregate symbolism of such bodies. This aggregate symbolism (Castells: 1978, 1983) was constructed, as we have said, over a period of time.

In October of 1990, the Superintendence of Funding Procurement for the city of Rio de Janeiro, pre-occupied with the preparations for Earth Summit 92, brought together a set of projects of work and activities related to the urban vulnerability of Rio and to the resulting environmental impacts of this precariousness. The superintendence was, on that occasion, the coordinating body, in the sphere of the municipality, of the Rio Reconstruction Program, a program financed by The World Bank for the city recuperation after the violent floods which occurred in February of 1988. At the beginning of that 90’s decade, we could see that set of works and services as a consequence of the environmental

\(^5\) The Real Plan, that became linked to the image of President Fernando and to Minister Pedro Malan began to be constructed and there followed, as a result, the negotiations of external debt.

\(^{Wright Mills (1956), that deals with the local, metropolitan and national elite. The text of Giovanni Busino (1992) is an excellent and current revision of the theory although it does not focus on the global elite.}\)
evolution of The World Bank’s preceding program. The city did not have its own resources and even Brazil lived through the results of a decade that for Latin American became known as the *lost decade*. Still, the new set of works and services prepared for the Earth Summit 92 could only be executed if it obtained international financing. And it could only obtain financing if it accepted the conditions of the international bodies.

When they were contacted, the technicians of the IDB in Brazil, who studied projects of basic sanitation for the country and for the State of Rio de Janeiro, turned to the set of works and activities presented by the Superintendence as a possibility of interaction between the environment and development. On this occasion, the IDB still did not count on an environmental department firmly installed; the branch closest were those of sanitation and urban planning. In Brazil, the question of sanitation in the metropolitan areas, especially of water and sewage, was and continues to be the prerogative of the state government, while the question of use of the land, in particular the urbanization of slums was and is the prerogative of the municipalities. To urbanize slums means, among other works, to channel the sewage, which, to have a suitable environmental destiny, should be expelled not in the rain water drainage network but in the sewage drains, for its turn it should have treatment before being emptied into the Bay. The collecting and the treating of sewage were, and continue being in the metropolitan area of Rio, a function of the State Company of Waters and Sewage. The financing, however, to have an ecological destiny, should unify the governmental politics of the state and of the municipalities, in particular the municipality of Rio de Janeiro.

At the end of 1990, the election of Leonel Brizola (a confessed follower of the public politics of Getúlio Vargas) to the governorship of the state of Rio permitted an identity of government politics between the state and the municipality, where the mayor was Marcello Alencar, then of the Democratic Labor Party - PDT, the same one as that of Brizola. The new governor even tried to have the IDB provide alternative financing for his project of public schools, but the Bank, under the effect of pressures from international environmentalists, made it necessary for a project that would create jobs and better the environment, in the midst of the line of development and ecology that was the theme and title of the conference to be realized in 1992. Brizola arrived at a meeting with the president of the IDB, Enrique Iglesias, in Montevideo, soon after being elected and before assuming his position. During the meeting, the governor, who knew about the idea of *depolluting* the Bay through two of his future secretaries, tried to convince the president of the IDB to direct part of the resources for public education but having no way out, admitted the environmental project.

With the political and financial questions relatively balanced, it would remain to solve the social and environmental problem at the same time. The treatment of the sewage water, launched at the water surface, a requirement of the environmentalists, exposed the obvious necessity of collecting in the areas still not served by the sewage collection system, some not even served by the rain water drainage system (GEDEG, 1992d: 3.9; JICA, 1993:III-12; JICA, 1994: 3.17), a necessity that was a demand of the social movements. This revealed a paradox: to use the resources to amplify the collection system would improve the quality of life of the poorest people but would increase enormously the volume of

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6 This tension between the municipal and state powers derived from the constitutional vacancy as much as from the metropolitan question. The metropolitan regions were created during the military regime and represented a clear interference of federal power with the state and municipal ones. The constitution of 1988 gave the municipalities control over sanitation, except when it is handled by the metropolitan region. This discussion over the respective prerogatives has been the object of different judicial actions and awaits the law to complement what defines the attributes.

7 Brizola, who was elected for the second time as the governor of Rio, was the brother-in-law of Jango, ex-minister of labor of Vargas and the ex-president of the Republic during the military takeover in 1964. Marcello had been the assessor of Jango and, in the previous mandate as mayor of Rio was indicated by Brizola. All of them, until then, were defenders of state politics and nationalists who characterized Brazil since 1930 and even during the military regime.

8 Only 49.93% of the population of the municipalities, components of the Guanabara Bay Basin, have some form of sewage, through an absolute separation system or through the unitary system.
sewage that would come to the Bay and that, if not treated, would diminish the water quality; to use the resources in the treatment of the areas already being collected would increase the quality of the water, especially of the beaches inhabited by the richest groups of the Bay basin, but would keep the poorest exposed to the open sewage drains. It was the need to find an efficient use of the resources that would maximize the social and environmental benefits but at the same time would find, among the beneficiaries, the willingness to pay for the costs. In a pure market system, without governmental interference, those who do not have conditions of payment would be excluded from the service benefits. But the existence of open sewage drains in the poorest areas produces the risk of transmitting diseases to other residents of the city, which results in spatial segregation, marked by the existence of open sewage drains, between those attended by service and those who are not.

In any case, the question of sanitation, and specifically the collecting and treatment of sewage, became the most important among those aroused by the precariousness of the subsystem of urban services: collection and final destination of the garbage, drainage of the urban sub-basin tributaries of the Bay, control of the industrial residues and/or toxic waste, reforesting of the hillsides, etc. The clear relationship between the sanitary question and the environmental problem finally dominated the vision of the mission of identifying the problem, that the IDB sent to Rio in April 1991 for an encounter with the governmental organs of the state and the municipalities. The theme, until then of a technical character, acquired dimension and political visibility, were it close to Earth Summit 92, whose first preparatory meeting had already defined Rio de Janeiro as the seat, were it for the possibility of financing the works and necessary services for depolluting the Bay.

The proximity of the conference - and of external resources – mobilized the state government, that created the Commission of Managing of Special Projects for the Guanabara Bay Basin, substituted in December, 1991 by the Executive Group of the Depollution of Guanabara Bay - GEDEG. And it mobilized the federal government that, in August of 1991, would pledge itself to the program through the decision of the Interministerial Commission of External Financing - COFIEX. The PDGB began to be institutionalized and generated interest from constructors and those of the ruling class. In particular, it increased the possibility of co-opting of the governmental technocracy that saw in the program a possibility of self-realization, at the same time in which it fought for future resources for its own areas. Among the organisms that disputed administering it or at least the participation in the program were the State Secretary of Public Works and Services, where was found the State Company of Waters and Sewage – CEDAE, the Secretary of the Environment and Special Projects, that also contained the State Foundation of Environmental Engineering – FEEMA, the State Secretary of Industry, Commerce, Science and Technology, in addition to the City Hall of Rio de Janeiro, represented by the Company of Urban Cleaning – COMLURB, and by the Institute of Planning – IPLANRIO (Sanches, 1993).

Under the direction of the State Government, representatives from those entities presented to the IDB in Washington the first proposal of the program, in the value of $4 billion, divided into four stages and with a prediction of completion within 15 years. The analysis of the IDB restricted itself to the first stage of this global concept, eliminating the components of industrial wastes and reforestation and conglomerating in what was designated as complementary environmental projects. The urban and sanitary questions were privileged, and the program became limited to five components: sanitation, urban cleaning, macro-drainage, digital mapping and fiscal collecting, and complementary environmental programs. The sanitation works (of water and sewerage) represented, as will be seen, around 80% of the program, with approximately $600 million for the first stage. The environmental projects would be reduced to less than $20 million and the other components to around $150 million (see Table 2). The component of digital mapping and fiscal collecting was understood as essential to guarantee the greatest collection of taxes for the payment of the loans. Besides, this component represented the major portion of computer technology, practically non-existent in Brazil at the
beginning of the decade. With this technology, there was a search for a ‘better institutional organization of the municipalities’ (Cide, 1992; Gedeg, 1992c) involved in the program.

Starting with the visit to the IDB in Washington and the approval by COFIEX, the DPGB was incorporated in the list of negotiations between the IDB and the DEAIN, executive secretary of the COFIEX\(^9\), and the discussion passed to the federal level, where they talked about the regional aspects of the distribution and localization of the global resources of the IDB destined for Brazil. Such resources composed, in parallel, the agenda of discussions over the renegotiation of the Brazilian external debt, as will be seen in the next item. In this period, the stage of discussion became a national one, with disputes among São Paulo, Rio Grande do Sul (both with sanitation programs similar to the PDGB), and other federation states\(^10\). This discussion was linked to the debt of each state with the Union, for which the IDB needed collateral security. Also of interest to the IDB was directing its loans to the locals, where the governments would have the capacity of indebtedness and of payment. This dispute among the states, the federation and the multilateral organisms is classic in the role of multilateral organisms in the regional development of the countries that demand capital. The Amazon, for example, had as a national security area, and at the same time, of international interest, was excluded, on this occasion, from significant projects financed by the IDB, although the projects intended to be of an environmental character.

Resources of similar importance of the PDGB signify, many times, the total capacity of investments of the state governments, as it was the case in the state of Rio de Janeiro, and the program ended by becoming the principal investment of the PSDB state government between 1995 and 1998, when around 50% of the works and services were implemented. Contracting of the loans implies the acceptance of public policies and of the negotiated conditions by financiers and by the federal government and, depending on the value to be spent as counterpart, implies in the renunciation, for the part of the state and the municipalities, the other possible policies. In the PDGB, the $167 million initially negotiated as counterpart, could have been used – in case the program would be discarded – in education, a fact that was permanently reminded by Governor Leonel Brizola, who presented the program of school construction as the main theme of his electoral campaign\(^11\).

The economic-financial situation of the states was fragile, especially due to external loans of the 70’s, whose amortization began in the 80’s and that composed a significant portion of the Brazilian external debt. This has been the case of the state of Rio de Janeiro, with the construction of the Metro and of the Rio-Niterói Bridge, public works realized during the military regime with international resources, and that in the 90’s would come to be privatized. In the year 1990, the last one before Leonel Brizola took office, the deficit of the state had been $985,769 million and in the year of '91, was still more than $133 million (GEDEG, 1992d: 3.17)\(^12\). The impossibility of the state to enter with a high.

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\(^9\) Other organs involved in this phase were the United Nations Program for Development - UNPD, which financed an exploratory study for the program, and the Brazilian Agency of Cooperation, of the Ministry of Foreign Relations, that handles resources applied in Brazil as a lost fund.

\(^10\) See in this respect the Official Diary of the Union of December 12\(^{th}\), 1991, with respect to the resources of the IDB, and of the 6\(^{th}\) of May of 1992, with respect to the resources of the OECF, where there are published the recommendations of COFIEX. It must be pointed out, particularly, the recommendations about the negotiations between the state and the federation and about the capacity of indebtedness of the states.

\(^11\) Brizola had perfect knowledge of his electoral clientele and he detached permanently that the commitment assumed by his government was to construct 500 Integrated Centers of Popular Education (Ciep). The counterpart demanded by the state would permit, if used in education, constructing between 80 and 160 Cieps, that were estimated in the campaign at $1 million each and that, beyond other estimates, cost approximately $2 million.

\(^12\) This deficit is typical in the transitions of government, when the preceding government leaves to the recently elected government all the debts resulting from works realized during the last year of the mandate and pre-electoral period.
counterpart immediately, made it such that part of it would be transferred to the municipality of Rio de Janeiro, that finally realized separate contracts with the IDB. Another part of the counterpart demanded by the multilateral organs was transferred to CEDAE, that takes water and sewer taxes directly, to be used as payment and that would have the major part of the financing. The bigger guarantee, however, continued being, as it was in the past, the collateral security of the Union. Beginning from the impossibility of the state government to participate with a bigger counterpart, the IDB resolved to diminish its risks including the Japanese government, through the OECF, in the negotiation and the government of the state resolved to transfer part of its disbursement for the last years of the program, concentrating itself on the contract of the works with Japanese resources. Part of the costs of digital mapping and macro-drainage would be later contracted directly with the Municipality of Rio de Janeiro (see Tables 1 & 2). Although the financing would be fixed, the costs normally varied in function of the market and of the exchange rates and are compensated through the category of the unplanned or, eventually, permitted the inclusion of other works (GEDEG, 1996e).

Table 2 – Type of costs by the source of resources (US$ millions) – Initial costs in April, 1994

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Engineering/Adm.</th>
<th>Direct Costs</th>
<th>Concurrent Costs</th>
<th>Interest and Unexpected</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDB</td>
<td>Credit Op.</td>
<td>220.9</td>
<td>8.3</td>
<td>70.8</td>
<td>300.0</td>
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<tr>
<td></td>
<td>Special Op.</td>
<td>10.3</td>
<td>35.0</td>
<td>4.0</td>
<td>50.0</td>
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<tr>
<td>OECF</td>
<td></td>
<td>13.5</td>
<td>169.7</td>
<td>53.5</td>
<td>236.7</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Government</td>
<td>8.5</td>
<td>128.8</td>
<td>1.9</td>
<td>149.3*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CEDAE</td>
<td>22.0</td>
<td>30.8</td>
<td>5.8</td>
<td>124.5**</td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
<td>48.2</td>
<td>568.5</td>
<td>20.0</td>
<td>860.5***</td>
<td></td>
</tr>
</tbody>
</table>

Source: adapted from the Executive Group for the Depollution of Guanabara Bay – 1996

The costs in February of 1996 were $85.9 million ** The costs in February of 1996 were $120.4 million; *** The costs in February of 1996 were $793.0 million; + of which 77.7 was of interest and credit commissions.

Table 3 – Type of components by source of resource (US$ millions) – Initial costs in April, 1994.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Sanitation</th>
<th>Macrodainage</th>
<th>Solid waste</th>
<th>Environmental Projects</th>
<th>Tax Collecting Mapping</th>
<th>Interest and Unexpected</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDB</td>
<td>Credit Op.</td>
<td>233.3</td>
<td>2.3</td>
<td>3.6</td>
<td>70.8</td>
<td>300.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Op.</td>
<td>10.0</td>
<td>21.6</td>
<td>16.6</td>
<td>1.1</td>
<td>0.7</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>OECF</td>
<td></td>
<td>183.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53.5</td>
<td>236.7</td>
</tr>
<tr>
<td>State</td>
<td>Government</td>
<td>114.7</td>
<td>1.0</td>
<td>4.2</td>
<td>1.9</td>
<td>17.3</td>
<td>10.2</td>
<td>149.3*</td>
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<tr>
<td></td>
<td>CEDAE</td>
<td>58.6</td>
<td></td>
<td>25.8</td>
<td>18.5</td>
<td>22.0</td>
<td>201.1</td>
<td>860.5***</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>579.9</td>
<td>13.3</td>
<td>25.8</td>
<td>18.5</td>
<td>22.0</td>
<td>201.1</td>
<td>860.5***</td>
</tr>
</tbody>
</table>

Source: Adapted from the Executive Group for the Depollution of the Guanabara Bay – 1996. * The costs in February, 1996 were 85.9. ** The costs in February, 1996 were of 120.4. *** The costs in February, 1996 were 793.

With the political unity between the state and the municipality of Rio, the major municipality of the basin, with the amplified financing starting with the entry of the OECF, and with the question of the counterpart equated, it was necessary to define the users who would benefit and their possibilities of payment. Starting in 1992, the GEDEG actualized the mathematical model of the quality of water that had been prepared by the World Health Organization (O’Connor et al., 1977), and applied the IDB’s methodology for the socio-economic analysis that defined as low income part of the areas that were
benefited (Gedeg, April 1992b). In fact, the methodology consisted of a consideration of the willingness that the consumers with a median family income of $455 (per month) had to pay for the implementation of the collector networks. The result was that this population would be willing to pay 2.8% of their income, or that is 12.73 dollars per family monthly. (Gedeg, April, 1992b: 17). Some complementary interviews in fishing colonies (generally those with low income, but not the owners of the fishing boats) confirmed the losses caused by the industrial and domestic sewage but they did not estimate values. Other calculations were tried, to define the willingness to pay by the leisure and esthetic use of the beaches. The results for the use of leisure presented indices of extremely low acceptance, even in the gauging of the high-level neighborhoods, such as Flamengo and Icaraí, with indices inferior to the lowest prices of treatment. In the case of the esthetic use, and even with the inclusion of neighborhoods with higher level income, such as Copacabana, there arrived the median result of 2.9 dollars per family per month, what would make impossible the payment of the costs of a secondary treatment.

The result, as was to be expected, was that the willingness to pay for the establishing of collector networks was four times greater than the willingness to pay for the use of the beaches for its esthetic use. The cost of these collector networks (as much the cost of the market as the efficiency cost) was also less than the cost of treatment. With this result there is perceived that the paradox between investing in the collection (with an increase in pollution) or investing in the treatment (with a lower social benefit), referred to previously, should be resolved by the application of the greater part of the resources in the collections and not in the treatment of the sewage, exactly the contrary of what happened since more than 50% of the resources were destined for the construction of the treatment stations (with the necessary trunk collectors and pumping stations). But the result of the research about the willingness to pay exposes also the fact that this willingness to pay ideally expressed in the research is confronted with the real capacity of payment, since more than 50% of the metropolitan region population of Rio de Janeiro earns less than $400 average family income monthly and that more than 17% of the same population earns today less than 150 dollars average household income per month, and that less than 15% of the water connections (where there is charged a water and sewer tax) are not paid because they are clandestine. Or worse, whoever expresses the willingness to pay for services that he wants (sewer networks) does not have actual conditions (the ability) to pay for them; those that have the greater actual condition to pay are not even willing to pay the cost that they supposedly desire to (users of leisure and esthetics).

In spite of this, the greater part of the resources was destined for the construction of the treatment stations, for the acceptable reason that it would contribute to the esthetic use and to the leisure of the entire population (a number that multiplied by only $2.9, increases the benefit), for the fact that the groups of higher income have some willingness and a greater capacity to pay, but also because these great works and their equipment involve national and international groups with major political force that the poor, even in populist governments. And, finally, because of a global elite, in which the bureaucracy participates with decision-making power in the country, in the state and in the municipality of Rio de Janeiro, understand that, with the later privatization of sanitation services, whoever had the actual capacity of consumption would pay for this and would have the services.

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13 This is the median value. The research used initial data of other research already realized in São Paulo in areas of higher income.
14 Less than the market cost, because it took into account the social and environmental benefits. For this reason, the collecting chains produced greater benefit per unit invested than the primary treatment and this more than the secondary treatment.
15 The estimates over the number of clandestine connections are not precise, but even so, vary from 15-30%, according to the studies of Cedae (Gedeg, 1992c). For the estimates of family income and household income, see the National Research of Sample Households – PNADs from 1995 to 1998 of the IBGE.
Whoever did not have the capacity to pay – the poorest local citizens – would be excluded from the market. The question is that the poorest would prefer to have the collection than to have clean beaches.

On the other side, the poorest local citizens live and vote in Rio de Janeiro and constitute a significant portion of the electorate of whatever government that decides for whatever public policies. If the choice were made through an electoral process – and if the research over the willingness to pay could be a good indicator of the demand for public services – the option of the poor certainly would be the other: to use all the resources in the construction of the collecting networks. If this were done, it could not be paid by the immediate users, or better, only could be paid by a public company that would dissolve this cost into the tax paid by everyone, with the reasonable argument that the groups of higher income were disposed to pay to diminish the risks of disease. One private company would choose to invest in the treatment of the areas that already have collections (and with a greater capacity of payment) for the simple fact that the social groups of this area could buy the service. The fact is that the decisions of the government could be taken with relative autonomy by the ruling group of the public entities (co-opted or not by the dominant set of ideas of private interest) that look at their own benefits, the maintenance of their highly-qualified technical and bureaucratic activities, and the expansion of the market for products and services of national companies and of interdependent foreign ones, in particular, consultants, and of the sale of equipment (national and international). In general terms, however, this ruling group, connected to the global elite, has the support of a middle class that is significant as the consumer market and as integrated workers in the economic system. Whoever is not significant, neither as a market consumer nor as a work force member, is the contingent of the poorest, almost 20% of the region population, disconnected to the system, unemployed, surviving on levels below the subsistence level. In this sense, the autonomy of the ruling group in relation to the poor local citizens, not integrated internationally, is only constructed through subordination (Przeworski, 1995) to the ideas of free market of the groups already integrated with the global elite and with the support of a middle class that participates as a consumer in this free trade.

2 - RENEGOTIATION OF THE DEBT AND THE ALTERATION OF THE INSTITUTIONS

Although the PDGB appears to take aim at (and in part looks at) the recuperation of Guanabara Bay, the program serves, in fact, other objectives, explicit or not. The official objectives are: a) to clean the Guanabara Bay and the adjacent basin; b) to improve the quality of life of the 7.3 million inhabitants of the basin; and c) to fortify the institutions of the local governments whose activities could positively affect the Bay. The works and services selected to attain these objectives include, by components: a) basic sanitation, including supplying of water (pumping, sectoring, and networking) and collecting and treatment of sewage (treatment stations, collectors, trunk lines and the connecting chain); b) collection and final disposition of solid wastes, transference stations, recycling plants and institutional reinforcement of the municipalities in the supervision of private services; c) draining of rivers and canals, including works of prevention of flooding; d) complementary environmental programs, including control of industrial pollution, monitoring of the water conditions and environmental education and; f) digital mapping and institutional developing of municipalities.

The program was signed in two contracts, one with the IDB, signed in November, 1993, liberated starting in 1994, and that developed itself almost completely during the years 1995-1998. This contract covered all the components, including the supplying of water and part of the treatment of sewers (all of them opened to international competition), besides 27 works of the collecting of sewage and 15 works of water distribution, all in poor areas and that were completely done in the same period. The

other contract, with the OECF, signed in 1994, and initiated in 1995, included only the treatment of sewers with the construction of the systems (stations, interceptors, trunks, and pumping) of Alegria, Sarapuí, and Pavuna-Meriti, and the enlargement of the Penha system. In the period from 1995 to 1998, the contract with the OECF had some works partially completed in the Alegria system. With reference to the markets for these contracts, it could be said that the small works of extending the network, included only in the contract with the IDB, are typical works of local market, using unqualified manual labor. The big works, as well as the services of administering them and the consultation and the sale of equipment, are typical areas of large companies, of national and international consortiums, and of businesses with more sophisticated technology. From the institutional point of view, there could be distinguished three types of market: the local market is traditionally a neighborhood market, subject to the politics of the local clientele and which ranges from small works to informal activity; the national markets, more competitive, were created by the norms of the federative state, among others that establish barriers and area reserves; and the international market that necessitates to subordinate the ‘substance of the society’ (Polanyi, 1945), the work force and the natural resources, to the laws of the market.

Until the middle of the 90’s, Brazilian engineering, through the politics of protection of national industry, maintained a series of rules that created a national market for the great works and equipment, different from the local norms of protection (directly linked to the local politics of the clientele) or of the laws of the market. The national market, nevertheless, even when competitive, was always influenced by political power and by the fact that constructors were historically linked to the financing of electoral campaigns (municipal, state, and national). As urban services were, and still continue being a great part public, the decision of the works and services favored the coopting of decisions-makers and the formers of decisions, especially the public bureaucracy and part of the press. The great (as well as the small) constructors, or entrepreneurs of public works, always shared, on different levels, the rent of public power. When they were not the great state companies, the big private monopolies of basic input for civil construction - of cement, for example – was formed under the shadow of the state with the justification of strengthening national industry and defense against the international monopolies. Protected, these companies, public or private, did not need to go along with the technological changes and the changes in the production process that occurred in diverse areas and which permitted the reduction of costs.

At the beginning of the 90’s, and especially in function of the conditions for the renegotiation of the external Brazilian debt, the national market yielded to the innovations and cost reductions, but also submitted the “substance of society,” that is, the workers and the environment, to the power of transnational firms. These, although they already maintained financial connections with the national firms, could now maintain a management, industrial, and controled interdependence, through third parties, licenses, joint ventures and pure and simple sales, including the purchase of state enterprises, referred to as privatization. The legislation of creating the national market, constructed since the 30’s, was, or continues being, completely eliminated. In February, 1995, giving continuity to the logic of expansion of the international market, the Brazilian federal government approved a new legislation that governs the concession of works and public service. The new legislation is linked to the governmental interests in conceding different public services to companies or private consortiums, national or international, founded on the principle of competition in the different fields: electric plants, construction and maintenance of roads, telecommunications, prisons, etc. Among the principal projects taken back, starting with this legislation, are the projects of basic sanitation presented as environmental during the UNCED, among those of the PDGB.

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17 Law No. 8,897 of February 13, 1995.
The environmental programs similar to the PDGB, created beginning in 1990, were linked to this climate of ideas of expansion of the international market in force in the negotiation of the external debt. This expansion would allow the countries to export not only the old products based on the low prices of work force and of the natural resources but also new products still based on these comparative advantages and now also on the imported technologies of the central countries. This opening to the international market demanded, on the other hand, the recuperation of some areas, and Rio de Janeiro was one of them, that would attract the most modern services and an elite directorate that, based in these recuperated areas, would realize the necessary connections to the expansion of the markets. Rio had the required amenities for these elite, then a recuperation of this atmosphere was enough. The problem was that the expansion of the international market, since the previous decade, was being blocked by the necessity of the payment of the external debt.

The Brazilian external debt was, in the early 90’s, the principal restraint on the country’s public policies. Although Brazil would already encounter difficulties with the payment of the service of the debt since the beginning of the 80’s, it would be only after the indirect election of the first civil president19 that the payment of the interest would be contested. The payments of the debt service were only suspended in February, 1987, and, six months later, in August, the Brazilian debt was reclassified as “value impaired”. Brazil was one of the major international debitors, and the question of debt was a question not only of the countries dependent on external capital, but also one of an international financial crisis. The lack of resources in the dependent countries also signified a loss of consumer market for the principal countries, such as the United States and Japan20. In the years following 1987, through a panorama of crisis, the tensions and negotiations between the Brazilian government and its creditors intensified, with the explicit intervention of the multilateral organizations (International Monetary Fund – IMF, The World Bank, and the Inter-American Development Bank – IDB) and of the governments of other countries (The United States and Japan principally, but not exclusively). Though slowly, the IMF and The World Bank, based on the theories of control of monetary offer began to move themselves to avoid a major bankruptcy. At the same time in which they emerged as sources of resources in strong currency, they proposed the restructuring of the debt accompanied by rigorous monetary and fiscal measures that would avoid any inflationary process21. In 1987, Senator Bill Bradley had shown the relationship between debt and consumption of the principal countries, offering a plan to the countries in debt, linking the debt relief to trade intensification22.

From a political point of view, Brazil produced on the eve of 1990, two years before the Earth Summit of ’92, its first direct election after two decades of a military regime and external indebtedness. The Collor government took office with a proposal of economic restructuring in the patterns proposed by the IMF, but the environmental question, at this moment, had already provoked tensions in Brazil and the rest of the world. In the following year, 1991, at the same time in which it was negotiating with the Group of Seven the support for the conversion of $1.5 billion of the debt in environmental projects, the Collor Government launched a program of privatization, that began with Usiminas and later on reached the huge Vale do Rio Doce, as a form of attracting external capital23, particularly American pension funds24. Thus Usiminas, an ironworks company, like Vale do

19 At the end of 1984, Tancredo Neves was elected indirectly by Congress, with José Sarney as his vice-president. Neves died on the 21st of April, 1985 without taking office and, during his hospitalization, Sarney, more conservative, assumed office, generating criticism over the legitimacy of his right.
20 In 1982, Mexico had declared it would not make more payment on its loan. Brazil was the Third World biggest debtor, over $110 billion, and Mexico the second with $101 billion (Journal of Commerce, August 21, 1987). In 1990, the Third World owed $3,000 billion (Management Today, July, 1990).
21 This is the fundamental criticism of the monetarists to the Keynesians.
23 The sale of Vale would be consolidated only in 1997, during the actual government of Fernando H. Cardoso.
Rio Doce, a mining company, was involved in the breakdown or in the deterioration of natural resources, were it by deficient technology, were it by their own nature of activity.

In January, 1992, when Brazil already had a debt of $118 billion and Collor followed his project of liberalizing the economy, the IMF approved a promise of loaning $2.1 billion, signaling its support for the Brazilian project. Pedro Malan, former director of The World Bank, then negotiator of the debt, and today Economy Minister, negotiated the debt in New York with the commercial banks, in the value of $49 billion, while then Economy Minister, Marcílio Marques Moreira, prepared in Europe the agreement of $22 billion with the creditor nations of the Paris Club. At the same time, The World Bank promised by the end of that year one billion dollars for new projects, while the IMF demanded a program of austerity, privatization and liberalization. From the environmental point of view, the objective was, and still persists being, to establish a balance between the diminution of the poverty and the recuperation of natural resources threatened due to the proposal of increasing production. New technologies would allow the increase of exports and attending to the patterns of consumption of the principal countries. The economic stabilization through renegotiation of the debt would attract new private capital that, seizing the comparative advantages of the low costs of the salaries and prices of the natural resources, could, importing new technologies, export at competitive prices. As much from the commercial point of view as from the environmental, the conference of the United Nations represented an attempt to overcome the ‘standard view’ that to protect the environment implied an unnecessary abandoning of economic benefits. The new idea, of ‘ecological modernization,’ of maintenance, rejects the previous vision, but only to protect in long terms the base of resources necessary for the accumulation of capital (Harvey, 1996: 373-379). The very protection of these resources would begin to be profitable. During the Earth Summit in June, 1992, pre-occupied with the questions of international market, with new technologies and with the preservation of the environment, the IDB and the OECF announced their commitment to depollute Guanabara Bay. The program took for granted the agreement about the external debt and the adoption of measures of restructuring extolled by the IMF and The World Bank, especially in respect to the privatization of public services, particularly those of sanitation in the most populous regions.

Parallel to the privatization incentive, Collor began to struggle with the denunciations of co-opting the ruling elite and the country’s bureaucracy for the interests of the business network. In the face of the dramatic Brazilian political situation, the negotiators of the debt accelerated to sign an agreement ‘in principle’ that became the essence of that which would be signed in definition in 1994. By the accord, $3.2 billion in American Treasury bonds would be deposited in a special account accumulating interest for 30 years, at the end of which they should guarantee the payment of the principal. The banks could exchange the “value impaired” Brazilian debt that accumulated interest unpaid since 1989, for six new types of paper, this time firmly guaranteed. The new titles that the banks would receive would have a greater value than the market value of the debt and more than the accountable value since, in 1990 and 1991, the Federal Reserve Bank had already reduced the value of the register of the loans by 40% of the face value.

In the beginning of 1993, a little more than a month after the Senate approved the agreement “in principle” of the external debt, Fernando Henrique Cardoso, then minister of External Affairs for the substitute of Collor, Itamar Franco, received a Japanese delegation from the OECF to countersign the agreements promised during the United Nations Conference for the Environment and Development - UNCED, among which the PDGB, the most important together with the program of depolluting the Tietê River in São Paulo. In June, already minister of the Economy, Fernando Henrique launched the Plan of Immediate Action, after it was transformed into the Real Plan, that expanded the privatization

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of state-owned enterprises, made a budget cut of $6 billion (including social costs), implanted a rigorous control over the debts of the local governments, foresaw the creation of a new coin, in parity with the dollar (the real), and reduced even more the importation taxes that made difficult the entrance of equipment into the Brazilian market. In April, 1994, Minister of Economy Fernando Henrique finally signed what was being negotiated ‘in principle’ since 1992, increasing his chance of being elected Brazilian president, what effectively occurred at the end of the year 27.

Table 4 – Balance of direct investment in Brazil (Billion $) and acquisitions by foreigners (% over the total)

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<tbody>
<tr>
<td>Balance of investment</td>
<td>4.313</td>
<td>9.976</td>
<td>17.083</td>
<td>25.893</td>
</tr>
<tr>
<td>Acquisitions of enterprises by foreigners</td>
<td>41%</td>
<td>41%</td>
<td>48%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Source: Brazil’s Central Bank and * Price Waterhouse

A major entry of capital in Brazil, from $5.4 billion in 1990, to $32 billion in 1993, had already permitted the government to increase its international reserves. Based on the previously accumulated reserves and to guarantee the balance of direct investment (see Table 4), Cardoso’s plan linked the variation of the currency to the market. To maintain this connection but to avoid big fluctuations in function of the eventual exit of short-term capital, the government had to keep its reserves to contain eventual speculative attacks 28. With this, it stayed without resources to cover the budgetary expenses and the government needed to restructure and increase its internal debt that totaled $31.5 billion in 1994 29. Having to reduce the receipts generated by taxes and duties imposed on companies – that resulted in the so-called Brazil cost – to facilitate its competitiveness in the international market, the government had no alternative but to reduce the budgetary costs, especially the social expenditures, affecting in particular the poorest population. The other problem of the plan linked to the environment was the expansion of international market, although with a deficit in its commercial balance (see Table 5) 30.

Table 5 – Brazilian Commercial Balance (in billion dollars) – years

<table>
<thead>
<tr>
<th></th>
<th>Exports</th>
<th>Imports</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994*</td>
<td>43.545</td>
<td>33.079</td>
<td>10.466</td>
</tr>
<tr>
<td>1995</td>
<td>46.506</td>
<td>49.858</td>
<td>-3.352</td>
</tr>
<tr>
<td>1996</td>
<td>47.747</td>
<td>53.301</td>
<td>-5.554</td>
</tr>
<tr>
<td>1997</td>
<td>52.990</td>
<td>61.347</td>
<td>-8.357</td>
</tr>
<tr>
<td>1998</td>
<td>51.120</td>
<td>57.714</td>
<td>-6.594</td>
</tr>
</tbody>
</table>


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28 With the devaluation of the Mexican peso and the flight of international capital, the Brazilian government had to alter its exchange politics, devaluing the currency by 8.5% on March 13, 1995, at a cost of reserves in excess of $1 billion. (LDC Debt Report/Latin American Markets, March 13, 1995).

29 Euromoney, April, 1994.

30 From November, 1994, to January, 1995, the commercial deficit reached $1.66 billion, the first deficit since 1986 (LDC Debt Report/Latin American Markets, 13 of March, 1995).
Independent of the economic and institutional alterations that the renegotiation imposed, the Brazilian external debt continues to be a problem (see Table 6). In ’95, it was reduced but still corresponded to approximately 30% of the GDP and to 250% of the export profits. Only servicing the debt corresponded to 30% of the export profits. In the year 1996, with The United States, Japan, and Germany applying low taxes of interest, we could observe a compensation in the Brazilian economy, due to the flow of capital in search of a better yield, in the so-called emergent markets, that were striving to offer four or five percent of the future returns against 0.5% in some of the central countries.

In spite of the big affluence of capital in 1996, the expectations in May, 1997 were that the deficit in current accounts, due to the commercial deficit and to the debt service, would reach, as it had reached, $30 billion at the end of that year. The commercial deficit, in particular, suggests that the spectacular growth of imports, that went from 4.8% of GDP in 1991 to 9.2% of the GDP in 1996, was in view of the increase of consumption, reducing the domestic savings (Terra, 1997). From the Brazilian point of view, the most serious thing is that the entry of resources did not correspond, however, to an investment increase that would guarantee, in the future, the payment of debts.

Table 6 – Brazilian External Debt (public and private) in billion $

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>External Debt</td>
<td>159.256</td>
<td>179.935</td>
<td>199.998</td>
<td>234.687</td>
</tr>
<tr>
<td>Public</td>
<td>95.129</td>
<td>93.663</td>
<td>85.704</td>
<td>94.895</td>
</tr>
<tr>
<td>Private</td>
<td>64.127</td>
<td>86.272</td>
<td>114.294</td>
<td>139.792</td>
</tr>
</tbody>
</table>

Source: Central Bank

3- THE OVERLAPPING OF SOCIAL AND POLITICAL STRUCTURES

To pay the external and internal debts, to overcome the deficit in current accounts and to pay the future revenues from the entrance of new capital, in accord with the model proposed by the multilateral organisms (among them the IDB and the OECF) with the technological and institutional conditions prior to the renegotiation, it was necessary to pursue investing in the ‘comparative advantages’ of low salaries and low prices of the natural resources. With the proposed adoption of importing technologies of transnational enterprise networks, the supposition is that there could be better salaries for the work force proper of these new technologies and a reduction of pollution. This is what supposedly would occur with the equipment and the technologies proposed in the PDGB. But the counterpart is that the unqualified labor, that means the poorest, is not employed, becomes irrelevant, is disconnected from the production system and is excluded from consumption, in particular from the public service of sanitation. These citizens, nevertheless, continue to be significant as electors of local governors and, consequently, significant in the choice of public politicians. Programs, such as the recuperation of Guanabara Bay, incorporated in the models of the opening of capital (see Table 4), privatization, minimizing the state and flexibilization, do not succeed in providing an answer, neither to the poverty, nor to the preservation of the environment. These problems are the result of: a) the credit for the importing of technology and, consequently, in the expansion of the market with the production for exportation and the future payment of the credit; and b) the competitiveness based on the low prices of labor and on the natural resources. In the best hypothesis, these programs result in the polarization

32 Together with the program of depolluting Guanabara Bay, the international organisms proposed the financing of similar programs, as the depollution of the Tietê River in São Paulo and the depollution of Santos Bay, in Bahia. Other programs less endowed with environmental intentions involve production and distribution of electric energy, corridors of transportation for the Mercosul (commercial agreement in South America) and the new marine terminal in Rio de Janeiro (Latin Finance, March, 1995).
between the spaces that will be *depolluted* and will become an expensive consumption in the nucleus of the cities integrated with the network of global elite and the new spaces to be polluted due to the expulsion (through the market) of the poor and eventual polluting industries that could be productive for the local market.

The Depollution Program of Guanabara Bay – PDGB - is an example of how conditions of Brazilian external debt shaped local decisions about the environment and poverty. Different institutions – state, market, science - even how their respective apparatuses were involved in the formulation of the program; different discourses were structured; different concepts of risk were behind the PDGB. Among the institutions that structured the choices of individuals, state and market, through different levels and organizations, were the most significant. Other institutions, such as science, had a role limited by the state and the market, and are not the objective of analysis in this text. In the case of the PDGB, the interactions among the different levels of a state weakened by its external debt and by the internal political crisis and the international market offering of resources were the significant forces in structuring the program. What can be observed most profoundly is that, with the expansion of institutional rules for the international market (opening up to external capital, privatization, minimization of the state) and with the decline of institutional rules for the welfare state (expenditures with urban services for the poorest), those who emerged winning were: 1) the international bodies (with the future payment of the new debts); 2) the companies linked to a transnational chain (by licenses, royalties, joint-ventures, etc.) among those, construction companies on a large scale or of sophisticated technologies and companies interested in the management of the public services that were or would be privatized; 3) the inhabitants of the richest beach areas to be depolluted (Flamengo, Icaraí, Botafogo, Copacabana) that had sufficient ‘willingness to pay’ for the services and whose properties tended to appreciate in value.

On another point of the social spectrum, those disconnected from society more widely by unemployment, impeded by an education handicap from having access to jobs of a high technology, the poor, especially segregated, were not beneficiaries with the adjustment to the international economy. Modified, the traditional poor now include the recently-arrived, substituted by new technology, by flexibilization, by privatization of public companies. Due to the poverty and to the absence of norms of social insertion (chronic unemployment, but also inadequate education and social segregation), the drug and criminality culture (Goldsmith et al: 1991) has become, in the basin of Guanabara Bay, an alternative. From the dominant point of view, the central nucleus (the city of Rio) has renewed itself as a place of business initiatives of accumulation and a place of fixing real estate value (Harvey, 1975, 1985: 251), which is evident also in the case of the depollution proposal for the beaches of Guanabara. The city ‘remodels’ itself with the inclusion of international market consumers while the state remains blind to the segregation of part of its citizenry (Katzenelson, 1994) that, for not having conditions of payment are excluded from the market of sanitation and from other public services. The expansion of the chain of transnational companies: a) reaches the state (Daly, 1994) – which had before set up the national market; b) submit the common good (like the Bay beaches, but also the monopolies called natural, such as the public transport and the distribution of energy and gas) which succumbs to this

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33 I follow here the notion of institutional realism proposed according to that which the rational participants choose among the alternative conceptual schemes, or the ideologies (Grafstein: 1992: ch. 5). Grafstein’s vision escapes from the conventional realism based on rational, individual choice and recaptures the notion of ‘vivid relations’ as distinct understandings and even competitive.

34 Liftin has a position favorable to the autonomy of the scientific community. Yet, even criticizing the central positions in the state or in society, she recognizes that the industries, in the case of what she studies, are among the principal participants and that they benefit from the controls established by new institutions (1994: 16-26).

35 The Brazilian Institute of Defense of the Consumer, in research financed by the IDB itself, concluded that the consumers of electric energy of low income, from 1994 to 1999, had had a readjustment of 324%, while the readjustment of the big consumers fell 16%. In Rio, in December, 1999, 27% of the consumers were in arrears, double the indebtedness prior to
expansion to be appropriate by those that could pay for the renovated areas; c) debilitate the traditional forms of social relationships (Grundman, 1991) and; c) segregate the poorest. The metropolitan region became a collection of hierarchic ghettos among the dominant and subordinate sectors (Henry Lefebvre, quoted by Burgel et al.: 1987).

In the metropolitan region of Rio, the proportion of poor had already increased from 27% in 1981 to 33% in 1990, in the worst situation among Brazilian metropolises. Besides this, the proportion of poor in the nucleus was 25.1%, while in the periphery, it reached 41.7% (Rocha, 1995). This increase in poverty occurred despite the city growth rate having been reduced from 2.54% in 1960/1970 to 0.43% in 1980/1981, and in spite of the growth tax of the periphery having been reduced from 5.43% to 1.34% in the same period. All of this happened during the so-called lost decade. The objective of the debt renegotiation was to reduce this situation, based on the presumption that the entry of capital, through projects such as the PDGB, should reduce unemployment and eventually increase salaries.

The years 1995-98 are important for analysis due to their greater political and monetary stabilization, in spite of the Mexican crisis in 1995, that of Asia at the end of 1997, and of the Russian moratorium in 1998. Although these crises could have been forewarners of the flight of capital that Brazil would confront at the end of 1999, during those four years of the first government of Fernando Henrique Cardoso they could be managed with the politic of overvaluation of the real. If the Brazilian products for exportation confronted the competition of countries that devalued their currency, on the other hand Brazil benefited in attracting capital that fled from other areas. This was possible to maintain until the end of 1999 when the volatile capital resolved to realize profits and to leave the country. Neither the reserves that had been accumulated, nor the resources injected by the IMF at the end of 1990, were sufficient to avoid the devaluation of the real. Nevertheless, during the period from 1995 to 1999, justly the period in which the resources of the IDB were used in the PDGB, Brazil lived through a relative period of economic and political stability and without inflation (see Table 7).

Table 7 – Brazil’s Economic Indicators during the period of 1995-98

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflation#</strong></td>
<td>22.41</td>
<td>9.56</td>
<td>5.22</td>
<td>1.65</td>
</tr>
<tr>
<td><strong>GDP growth</strong></td>
<td>4.22</td>
<td>2.76</td>
<td>3.68</td>
<td>0.15</td>
</tr>
<tr>
<td><strong>GDP per capita</strong></td>
<td>4.278</td>
<td>4.758</td>
<td>4.864</td>
<td>4.639</td>
</tr>
<tr>
<td><strong>Open Unemployment+</strong></td>
<td>4.44</td>
<td>3.82</td>
<td>5.66</td>
<td>7.6</td>
</tr>
<tr>
<td><strong>Search for jobs</strong></td>
<td>22</td>
<td>24</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td><strong>Salary in reais++</strong></td>
<td>100</td>
<td>112</td>
<td>120</td>
<td>130</td>
</tr>
<tr>
<td><strong>Salary in $</strong></td>
<td>110.38</td>
<td>112.18</td>
<td>11.97</td>
<td>112.99</td>
</tr>
<tr>
<td><strong>Basic food basket in reais</strong></td>
<td>100.60</td>
<td>110.64</td>
<td>113.64</td>
<td>124.60</td>
</tr>
</tbody>
</table>

Source: IBGE, Central Bank, Procon-Dieese. # measure by the Wide Consumer’s Price Index – IPCA, government’s official index (%). * Annual rate of real growth based on the trimestral variations adjusted seasonally (%). ** Annual, in $/inhabitant, measured by the final exchange. + Open Unemployment. Annual median tax, according to IBGE’s methodology. The search for jobs is given in weeks, according to Dieese’s methodology. ++ Measured in the month of May of every year. The conversion into dollars is given by the sales tax of the last day of May.

This transforms the period into an ideal one for the analysis of the consequences of one of the objectives of the PDGB, particularly to know if there was or was not a reduction in poverty in the metropolitan region of Rio de Janeiro, as a result of the program. The variations most significant for Brazil, according to Table 7, refer to the rate of unemployment, that increased more than 70% in that period, and to the increase in time to look for work that went up almost 60% then. This increase of privatization. Still in the state of Rio, the Metro, the trains, the water and sewage services in the lakes region, and the gas company, all privatized from 1995 to 1998, are indexed to the tariffs above salary increases.
unemployment was the result of a process of the restructuring of Brazilian industry throughout the decade, following the model that had occurred in the central countries, especially the U.S.A. and Great Britain in the 80’s. Another significant factor was the restructuring and the consequential minimizing of the state, beginning with the third-party processes, privatization and flexibilizing. In the specific case of industry, the restructuring was due to the importing of new technologies and productive systems with the reduction of employees and an increase in productivity and revenues. Although this movement had occurred during the entire decade, the data related to the period considered, from 1995 to 1998, are relevant (see Table 8).

Table 8 – Employment Indicators, productivity and sales in Brazil’s industries*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial employment</td>
<td>-1.9</td>
<td>-11.2</td>
<td>-5.7</td>
<td>-9.1</td>
</tr>
<tr>
<td>Productivity</td>
<td>+3.7</td>
<td>+13.8</td>
<td>+9.8</td>
<td>+6.4</td>
</tr>
<tr>
<td>Invoicing</td>
<td>+9.56</td>
<td>+5.93</td>
<td>+8.72</td>
<td>-1.58</td>
</tr>
</tbody>
</table>

Source: IBGE, industrial job search, National Industries Confederation, Sales Indicators, and Industrial Foundation of the State of São Paulo – FIESP, for productivity; * percentage result over the previous year (%)

These changes in industry should be related as a function of the growth of the service sector that, in the decade, surpassed the industrial sector as a destination of external investment. We should, however, pay attention to the fact that the statistic over the service sector includes as much the most sophisticated technology as the major portion of informal work, expressing an overlapping of economic, social, and political structures. The informal work, for its turn, masks the official statistics of unemployment and is confused with flexible work. This results in the fact that in Brazil and in the metropolitan region of Rio de Janeiro, a part of the economic system participates in the international chain of production, as well as a part of the ruling bureaucratic system participates in the international chain of management and control of resources and in the fundamental political decisions involving the economy (like fiscal, exchange, and monetary policies). These global elite, responsible for decisions, such as the PDGB, overlap a local economy, almost always informal, and is articulated with a populist politic of a clientele that guarantees electoral control and what is responsible for implementation of the program. This is why the PDGB had to privilege the works with sophisticated technology and of international competition at the same time that it guarantees small jobs in the slums that attend to the local ruling class. The generating and maintenance of the poorest groups, by restructuring high technology, flexibilizing, unemployment, and informal employment also guarantees – by contrast - the electoral clientele.

In the case of restructuring of the state, the geographic areas most affected were those that were concentrated, and are still concentrated, on the major number of public servants in the three administrative spheres, particularly the metropolitan regions of Rio de Janeiro and Brasília. The State of Rio de Janeiro has 406,594 functionaries counting those who are active and retired, and the Federal District has 112,884. If we add to these last ones the public officers of Goiás, where we find satellite communities of workers from Brasília, we would have 255,748. The major portion of the public officers of low income, as much in Rio as in Brasília, are found in the peripheries of the metropolitan regions. The retired ones are also affected by the state reforms, especially with fiscal reform and with the imposition of taxes that previously were not charged. As it is common among the poor in Brazil that two or more related families occupy the same domicile, it is clear that the diminution of the income of an retired officer could result in the increase of the poverty level. When it comes to the actives, their

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36 Report of the Economic Commission for Latin America and the Caribbean – CEPAL- points to the privatization of electric energy and telecommunications companies as the basic element that made the service sector pass from 43.4% of the external investment in 1995 to 56% in 1998.
major risk is that of dismissal, having in sight the approval of new rules that permit the dispensing of state functionaries because of an excess of costs. The state of Rio de Janeiro spends 85% of its revenues on the payment of personnel, 25% more than is actually permitted by law. The Federal District spends 75.6%, 15.6% more than it is permitted.

In the case of Rio de Janeiro, the restructuring of the industry and of the public power resulted also in a deconcentration of production, and consequently of services. The state of Rio had a reduction, between 1987 and 1997, of 2,907 industries and 43.1% of its industrial employees; whereas the reduction of firms in the metropolitan region was 22%, there occurred an increase in the number of local companies in the interior of the state. The result of this deconcentration was that the metropolitan region of Rio de Janeiro diminished its participation in the mass salary of the country by 11.8% in 1989, by 10.02% in 1998, while the interior of the state increased its from 1.78% to 4.4%. These data, however, refer to formal employment and, in general, the state reduced its participation in the salarial mass of the country from 12.37% to 11.02% in the same period. Only from 1997 to 1998, the state industry lost more than 36,000 jobs, being that in the case of the state of Rio, the sales of industries also fell in the year 1998. The deconcentration, however, did not avoid polarization in the nucleus. The number of inhabitants in the slums of the rich neighborhoods of Copacabana and Leme increased 59.76% between 1991 and 1996.

This industrial retraction with the result of poverty, unemployment and spatial segregation, also reflects the results of overvaluing of the real, the competition of imports and the difficulties of exporting competing with the low prices of other countries with cheaper labor and little environmental control. The workers disconnected from the international market, whether by competition or by new technologies, returned to local activities. On the eve of the Brazilian crisis of 1999, in December, 1998, the informal work of Rio de Janeiro was increasing when compared with the formal work, but in compensation, 12% of the informal workers were earning the minimum salary while only 4% of the formal workers had this income. Of the informal workers, the monthly rotation of employment was 40% against 10% in the case of the formal workers (Bill and Neri: 1998). The basic basket of food, instituted officially by Getúlio Vargas in 1938, and the base for the minimum salary, continued buying the same things that it bought in the 30’s. Two of the poorest cities of the state (Itaboraí e Magé) and three of the richest cities (Rio de Janeiro, Petrópolis and Nilópolis) were in the metropolitan region of Rio de Janeiro, reproducing the social contrast of the state and the country.

In the metropolitan region of Rio de Janeiro, the works of the PDGB were not sufficient to reduce the poverty. The empirical discussion about the line of poverty is not necessary for the aims of this work. Here it is sufficient to establish some minimal parameters and study their variations in the considered period. Normally, we consider as very poor that individual who cannot earns sufficiently for his subsistence. In the years from 1995 to 1998, the cost of the basic basket to nourish an individual varied between 50% and 75% of the value of the minimum salary, similar values to the variations having occurred during the 80’s. If we consider the median monthly household income of 2 minimum salaries and an average number of inhabitants per house of 4 persons, what is acceptable for the very poor homes, this results in a per capita income of one-half a minimum salary, what corresponds in the best of hypotheses to a basic food basket. A concept of poverty that includes, more precarious than it would be, the costs of transportation and habitation necessary so that the citizen could be inserted in the production system of a metropolitan region, that we could consider as a poor

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38 Data of the Ministry of Labor, prepared by Professor João Sabóia, Faculty of Economics, UFRI, 1999.
39 Provided by Pochmann, Marcio, State University of Campinas, about data of the IBGE and the Ministry of Labor.
household that in which the monthly average income is one of 4 minimum salaries, that is, a minimum salary per capita.

In both cases, what is important is that we know if the poverty diminished in the metropolitan region of Rio de Janeiro as a function of the PDGB. As the program created jobs throughout works of distributing water, of collecting sewage and garbage, it would interest us to know the changes that occurred, in terms of income in the households with an average monthly income less than 2 minimum salaries, in the case of those that here we consider as very poor, and with an average monthly income of less than 4 minimum salaries in the case of those we consider poor. In the case of the very poor, the number of households, between 1995 and 1998, increased 8.8%, from 533,828 in 1995 to 580,763 in 1998. While the total number of households in the metropolitan region rose 5%41. In proportional terms, the households of the very poor passed from 17.8% in 1995 to 18.35% in 1998. The number of poor (less than 4 minimum salaries) households rose 8.6%, and the proportion passed from 38.04% to 39.15% (see Table 9).

Table 9 – Number of households according to the average household income in the metropolitan region of Rio de Janeiro

<table>
<thead>
<tr>
<th></th>
<th>1995 (absolute number)</th>
<th>1995 (% over the total number of households)</th>
<th>1998 (absolute number)</th>
<th>1998 (% over the total number of households)</th>
<th>1998/1995 (% over absolute number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 minimum salaries (very poor)</td>
<td>533,828</td>
<td>17.8</td>
<td>580,763</td>
<td>18.35</td>
<td>8.8%</td>
</tr>
<tr>
<td>Less than 4 minimum salaries (poor)</td>
<td>1,440,552</td>
<td>38.04</td>
<td>1,238,598</td>
<td>39.15</td>
<td>8.59%</td>
</tr>
<tr>
<td>Total of households</td>
<td>2,998,618</td>
<td>100%</td>
<td>3,164,120</td>
<td>100%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Microdata of the PNAD’s of 1995 and 1998

But it could be admitted that, in creating jobs, the PDGB could have avoided that the number of poor would increase much more. One could almost believe that this type of public policy – compared with others like education or health – would be that which would avoid more the increase of the poor, given the conditions of structural changes of the national and state economy. One form of obtaining some indication about the validity of the PDGB as public politic is to test what happened with the metropolitan region of Rio de Janeiro with some other, similar metropolitan region that would not have been submitted to the same type of local politics. In this sense, the metropolitan region of Brasília presents similarities to Rio de Janeiro, by the fact that both had a great number of public functionaries affected by the restructuring of political power. The metropolitan region of São Paulo was excluded as an element of comparison because it was submitted to the same type of public policies, the depollution of the Tietê River. What could be deduced by Table 10 is that the two metropolitan regions had increases in the households of the very poor and in the households of the poor. But, the increase in the households of the very poor in the metropolitan region of Brasília was less than the increase in the Rio de Janeiro region, although Brasília was not submitted to a type of public politics similar to the PDGB. Brasília, with other types of local politics, had an increase of the very poor less than Rio. In the case of the households of the poor (median household income of 4 minimum salaries), it could be argued that

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41 Used were the microdata of the National Institute of Household Sampling – PNAD’s from 1995 and 1998. As the number of domiciles used is only the total of those that responded to the questions about income and about the use of water, where it was less was the number of non-respondents. This could produce small variations which are not significant.
the PDGB had success because, when compared with the metropolitan region of Brasília, that of Rio de Janeiro had an increase. If that is true, it seems to confirm that the program definitely did not contemplate that group of poorer, absolutely irrelevant for the international market. This group, of 18.35% of the region’s homes and, consequently, of the poor population that live in them, represents more than 2,300,000 people, local citizens, the major part of whom with the right to vote, but subject to a politic of clientele that offers few urban services in exchange for their vote. Citizens, disconnected from the global system, who gain nothing from the DPGB.

Table 10 - Comparison of the proportion of homes according to the average household income (%)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 MS (very poor)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>17.8</td>
<td>18.35</td>
<td>+0.55</td>
</tr>
<tr>
<td>Brasília</td>
<td>14.24</td>
<td>14.56</td>
<td>+0.32</td>
</tr>
<tr>
<td>Less than 4 MS (poor)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>38.04</td>
<td>39.15</td>
<td>+1.11</td>
</tr>
<tr>
<td>Brasília</td>
<td>29.01</td>
<td>32.34</td>
<td>+3.33</td>
</tr>
</tbody>
</table>

Microdata of the PNAD’s from 1995 and 1998

CONCLUSION

This work raised evidence that the Depollution Program of Guanabara Bay, although intended in one of its goals to alleviate the poverty of the metropolitan region of Rio de Janeiro, did not attain this objective. From the other two explicit objectives, the improvement of the quality of the water and the reorganization of the institutions, the first still needs to be demonstrated and the second, the reorganization of the institutions, has been only the result of the major objective of expanding the international market, beginning from the dismounting of an organization of public power that had its start in the 30’s. This reorganization of the institutions, a euphemism for the privatization of the public service of water and sewers and of the garbage collection, accompanies a process of restructuring the state and the society that, in Brazil, was initiated with the Fernando Collor government in 1990. This restructuring, having occurred in the central countries in the 80’s, formed a network among enterprises that today are already non-distinguishable as national or multinational, the network which is supported by a global elite of businessman, bureaucrats, and directors and incorporates a middle class of consumers but excludes, because they are irrelevant, the poorest groups of local citizens.

It is possible that this occurs in other metropolitan regions through differently financed projects by multilateral entities. This is a supposition that only the continuity of comparative studies will allow a confirmation. Anyhow, this global elite is constituted not only in the common interests of all the internationally-connected enterprises, but also in the co-optation of high-level functionaries and of political leaders in the different administrative levels and in the multilateral organizations. Beyond their own interests, this elite is amalgamated by a set of ideas that disregarded the political and economic local reasons and that favored the competition, the international market, the privatization, the flexibilization (in particular the flexibilization of work) and the minimization of the State. This global elite is new in the sense that it transcends the interests of nationalities and consequently, of the citizens, and, in a mode which is each time more extensive, it escapes from the local social and political controls.

In the Brazilian case, and specifically in the case of the Depollution Program of Guanabara Bay, this global elite (with its internal and external segments) has produced the alteration of institutions since the process of renegotiation of the external debt, through the offering of capital and of the
conditioning of opening the market. This opening resulted in an importing of new technologies that increases the productivity at the cost of becoming a part of the local citizens irrelevant for the consumption and for the system of production. The quick decrease of the number of jobs in industry and in public administration has not found sufficient compensation in the opening of new positions in the service area. This area has included as much as the high technology services as the informal activities that generate occupations that could not be confused with flexible work, on the contrary, they are closest to semi-marginal activities and eventually illegal ones. The expansion of the international market overlaps new social structures, new occupational forms and new forms of management and decision controls with the old forms belonging to the local market and with the political clientelism (Mello et al., 1999) that incorporate as electors a group of almost 20% of the metropolitan region of Rio de Janeiro excluded from the new economic structures.

To this group of very poor, irrelevant to the international market because, at best, they reproduce themselves at the local market, the Depollution Program of Guanabara Bay did not succeed in reaching them. A part of them are not only the unemployed of industries and the public power, but also the informal and artesanal workers, among them the fishermen, traditional elements of the local market and of the non-predatory activities, that today are the biggest victims of the pollution of Guanabara Bay.

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Manuel A. P. Sanches  
Associate Professor at the Institute for Philosophy and Social Sciences – IFCS  
Federal University of Rio de Janeiro – UFRJ  
mps5@cornell.edu  
sanches@ifcs.ufrj.br  
Rua Ipiranga 132 apt. C02, Laranjeiras, Rio de Janeiro, Brazil, 22221-130  
Tel/fax: 55-21-5575087