Business Plan (DRAFT)

Fiscal Year, 2002
Introduction

The present Business Plan is part of an international pilot program made by the Tijuca National Park (Rio de Janeiro, Brazil) and by Masolu National Park (Madagascar). Both plans will be presented at the World Parks Conservation Congress (Durban, South Africa), to be held in September 2003.

The Tijuca’s National Park Economic Sustainability Plan have as a goal to produce a deep analysis of its financial resources and sustainability strategies, in order to provide a higher degree of efficiency to the management, and to communicate, in a clear way for the civilian society that takes part in the unit’s administration, its needs. A Business Plan seeks an answer to a few questions: What are the Park’s programs and operations? What is the amount of resources the Park needs to function in the desired pattern? What are the functional responsibilities and the operational patterns? How is the financial situation?

The Park is implementing a Business Plan to reach three main goals: I) Offer to the Park a synopsis of its budget history; ii) Present a clear and detailed picture of the current operations and budgets and; iii) Point the Park’s priorities and strategies.

To accomplish the goals, all the Park’s functional fields have been involved, since the information research phase until the analysis and propositions, aiming the construction of an integrative and participative Plan that facilitates its periodical update.

We highlight that today in Brazil, a Business Plan for natural protected areas is still an incipient practice. The Tijuca National Park may become an emblematic example in the accomplishment of another exquisite process in the administration of the Brazilian National Parks.

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Parque Nacional da Tijuca (Rio de Janeiro, Brasil), Plano de Negócios
Preface from the Executive Manager and The Park’s Chief

The biodiversity reduction threat is not restricted to the Parks located in the urban areas, but it is undeniable that the anthropogenic stress over the natural resources is almost devastating in those areas. In this context, it would be a sophism and a reductionism to consider its importance only in the leisure and recreational aspects. The fundamental role of the Park is to provide environmental services for the Rio de Janeiro City’s population, highlighting: the maintenance of the hydric volume through the producing fountains for the City’s supply; rain interception through the locksmith and prevention of hillside landslides; acting in the weather regularization; reduction of the rain sourness when it passes through the canopy; maintenance of the landscape esthetics; reduction of the atmospheric pollution; and control of the erosion process.

Despite its symbolical and functional importance for the Rio de Janeiro City, the Park history is marked with oscillation: periods of financial opulence against periods of rare resources; conservationist measures against utilitarian interests. The Park is a stage for the contradiction.

Before its complexity and aiming the reduction of the foreseen problems, two challenges become imperative: the consolidation of the participation and social control from the Park’s management and guarantee its economic sustainability. The first challenge is being reached through the establishment of the Management Counsel. The second, is being consolidated by innovative works developed in the Park, keeping in sight the implementation of new economical instruments for the creation and management of this Business Plan. In this process, the Tijuca National Park is marked, as well, for the pioneering.

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Executive Summary

The business Plan intends to identify and analyse the existent lack between the resources the Park receives and what would be necessary to reach the goals and missions desired. The following analisis is a summary of the main evidences presented in this Plan, based in the activities held in the fiscal year of 2002.

The Tijuca National Park is one of the world´s largest urban forest, located in Rio de Janeiro, Brazil. It has a great significancy for the nature conservation, specifically of the tropical forest, highly threatened by the anthropic action. Its location and attractions makes the Park reach the second place in visitation tax among the Brazilian conservation units, around 1,5 million people per year. In 3,200 hectares, are protected 25 threatened or endangered species and 120 archeological sites, besides covering some of the city´s most famous attractions, like the Christ the Redeemer and the Pedra da Gávea.

Almost all of the Park´s budget is arised from governmental sources. The Park, in 1999, started to be administrated by the shared management between the Federal Government and the Rio de Janeiro City Government, a pioneer and unique system in Brazil, aiming to attend the urban pression demand. All the revenue and reimbursement collected are destined directly to the federal government, that then repasses the resources (in form of salaries, services and money) to the Park.

The Park´s budget suffer a great impact from the inflation. The budget exclusively destined to the Park´s current expenses, which means, excluding those destined to investments stayed the same during the years 2000 and 2002, considering the inflation. The constant rise of the current expenses created a big gap between what is received and what is necessary, showing that the budget is accompanying the increasement of the prices.

The Park´s operations expenses were of around R$3,9 million in 2002. The Park´s activities were divided into four functional areas (with the following participations in the total of expenses): Public Use (17%), Resources Management and Protection (21%), Management and Administration (11%) and Maintenance of Infrastructure and Equipments (51%).

The Park had, to achieve the aimed patterns, a deficit of R$2,1 million and 88.1 FTE in 2002. The area with higher financial deficit was the Public Use, around R$885,000.00, while the Resources Management area had the highest personnel deficit with 26.6 FTE.

Besides the current needs, the Park needs R$5,383,000.00 in investments. In 2002 the Park realized great investments (Corcovado revitalization and Ecolimites project), which explained the raise in the total budget. Investments are important to keep and amplify the Park´s capacity. The biggest investment needs are in the Maintenance of Infrastructure and Equipments area, around R$1,970,000.00.

Financial strategies are being prepared by the Park to reach the aimed goals, covering the budget and personnel deficit, and allowing the accomplishment of new investments.

*FTE= Full-Time Equivalent, wich means 2.080 working hours per year.

"In this elevation (the Corcovado) the landscape is dressed up with such shining inks, the shapes and the colors overwhelm so much in greatness everything the european has seen in his land, that there aren´t expressions enough to explain how he feels." – Charles Darwin, 1832.
Overview of the Park

A Brief Summar

Despite having the smallest area among other Brazilian national parks, the Tijuca National Park presents the second largest IBAMA financial collection. Its management can be seen as of rare complexity, remembering of its location, inside the limits of a big metropolis, thus, suffering with the urban problematic that characterizes it.

It is understood for an area of 3,200 hectares, incrusted in the middle of some of the main residential neighborhoods in Rio de Janeiro City, being constituted by the groups: Corcovado - Sumaré, Tijuca Forest and Pedra Bonita and Pedra da Gávea, differenced by the use and occupation, environmental characteristics and level of conservation.

As an effect, even though it is a forest in inserted in the middle of an urban area, it has exceptional attributes of landscape and nature beauty, rocky massive, waterfalls, rivers, Rain Forest's fauna and flora, lookouts and other attractions. The Park became simultaneously, throughout the years, an important leisure and sports practice area and a national and international tourist attraction, because in it is located some of the City’s, and even the Country’s symbols and marks, such as: Christ the Redeemer Statue, at Corcovado, the Vista Chinesa and the Mayrink Chapel. According to data from the Park's Users Profile research, it is estimated that more than a million and a half people, including a substantial parcel of Brazilian and international tourists, visit the Park every year, producing beneficial reflexes for the City’s Commerce and Services.

Its vegetal cover is characterized mostly by a big variety of Rain Forest species, secondary vegetation results from a regeneration process after the intensive use of the soil in the previous centuries. Despite that, the ecological significance of the Tijuca National Park is owed to its representative biodiversity. And, among other aspects, to the need of preservation of its hydric resources, its landscape beauty and its cultural and historical relevance and for the environmental services used by the community. Although, the Park Management, concerning the natural resources and public use, demand a great effort due to the extensive negative impact of the surrounding areas.

In this context, Even though the Park has a relevant importance for the City, generating the increase of the tourism and the environmental services, the Unity has been suffering with the intense urbanization process that propitiated the appearance and growth of the slams around it, that in total are 46 in the Maciço da Tijuca, and 10 in the area around its limits. This situation implies in the execution of protection and integration with the community projects and the accomplishment of several partnerships, with public and private institutions, with the common goal of minimize the human pressure.

It is also evident in the Park the intensification of the interference caused by undertakings inside the Unity, keeping in sight it is a privileged place for the installation of communications undertakings (telecommunications, radio diffusion, and other likewise activities). Trying to decrease the problem, the management developed an economical valorization project, in partnership with other units and academicals area, establishing compensatory and mitigatory measures to the environmental damage.
The park is being acting as a disseminating source of information regarding the exercise of citizenship, environmental conservation and its historic and cultural aspects, through specific programs held at universities, communities and schools. Services such as trained guides to support and orient visitors at the tracks, environmental monitors, distribution of flyers and periodic events and expos are being offered. Also the park develops numerous projects with government organizations and non-government organizations (NGO’s) on topics such as integration of surrounding communities, ecological limits, environmental education, volunteer programs, ecological tourism and reserved spaces for religious offerings on surrounding areas. The park also possess infrastructure to receive and provide services to visitors, users and researchers, such as the park’s administration building, a visitors center, a fully equipped researchers house, chapels, informative signs, historical monuments, archeological sites and leisure areas for the practice of sports as climbing, footing, cooper, hang-gliding and also places to bathe.

Since April of 1999, the Tijuca National Park is managed by IBAMA in conjunction with Rio de Janeiro’s City Hall. This partnership, renewed every two years, is ripping excellent results specially regarding the park’s management, the integration with the surrounding communities improved as well as the maintenance and cleansing of public routes, maintenance of public areas and the support to IBAMA’s inspection.

After 2001 new installations were built, the Pedra Bonita area was revitalized, the Visitor’s center was created with expositions, events, lectures and permanent seminars, it was finalized and now operates the project Christ the Redeemer with Open Arms, it was implemented the volunteering, Management and researching program, it was enlarged the school visitation program, it was developed the Park’s environmental certification process (ISO 14.001), and it was established the Management Counsel, as advised by the law 9985/2000 – National System of Nature Conservation Unities (SNUC). It is highlighted the retaken and improvement of the environment economic valuation project, containing propositions about new economical instruments, that might allow the financial sustainability of the Brazilian conservation units.

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**Mission**

“To protect important natural resources samples, preserve valuable historical and cultural sites, maintain the genFTEc patrimony, keep the relevant scenic beauty of the landscapes, develop the environmental education, offer opportunities to the public recreation and tourism, promote the scientific research and contribute to reach a higher standard of life quality for millions of inhabitants of the Rio de Janeiro City.”

**Creation**: Federal Decree number 50.923, of June, 6, 1961, with the denomination of Rio de Janeiro National Park; Federal Decree number 60.183, of February, 8, 1967, changes the name to Tijuca’s National Park and establishes the present dimensions and other characteristics.

**Tutelage**: Brazilian Institute of Environment and Renewable Natural Resources – IBAMA.

**Management System**: Shared between the IBAMA and the Rio de Janeiro City Govern
Brief History of the Park:

The Park history shows a constant faith in the possibility of a more harmonious forest-city relation, through pioneer projects that demand passion and respect for the nature.

The “Maciço da Tijuca” area, originally covered with dense forest, stayed practically untouched until the middle of the XVII century. The Indians, the first inhabitants of the Rio de Janeiro City, were concentrate, mainly, at the ocean border, surviving from the hunting, fishing and planting cassava.

During all the XVI century, the need to protect the ocean border from foreigner attacks, made the Portuguese install the original urban nucleus at the Castelo and Santo Antônio mountains, a safe place close to the Baía de Guanabara. Therefore, for long years after the arrival of the Europeans, it doesn’t seem to have had any occupancy at the “Maciço da Tijuca” area, judging by the absence of vestiges and references on this matter.

Because of the frequent invasions that Rio de Janeiro suffered, it was built, in the “Maciço da Tijuca” area, military platoons to control any further invasion. It has been found as well some references of the deforestation process, caused by the extraction of the wood necessary for the construction of new edifications in a city that needed to grow. Since the XVII century, agricultural activities are added to the wood extraction and they coexist in the area until the end of the XIX century. The first plantations were of sugar cane and they occupied, in the beginning, a large piece of the slope and then expanded, in a natural progression, for the hillside of the “Maciço”, whose forests were conquered through the technique of clearance of land by burning.

Around 1760, coffee started to be planted in Rio de Janeiro, expanding itself through the agricultural area of the city, getting even to replace, in some sites, the sugar cane culture. The coffee covered the Gávea mountains, around the Lagoa, occupied Gávea Pequena and the higher areas of Tijuca, taking advantage of the hill’s still rich forest soil. All through the XIX century, the area was inhabited by nobles, politician and foreign diplomats who came to Brazil, mainly those exiled from France after the Bonaparte’s fall. And it was in these hillsides of the Maciço that they built their small farms, sites and coffee farms. Due to the displacement of the coffee-farming pole to the Vale da Paraíba, the big farms were slowly changing into small farms, where very important court gentlemen made their homes.

At the same time that was processed the agricultural occupation and the urban growth, causing deforestation on the hillsides around the City, a question started to worry the authorities: the water supply. In 1720 started the work for the channeling of the Carioca River that went down through Santa Tereza to downtown. In 1750 in concluded the construction of the Carioca Aqueduct, today known as Arcos da Lapa.

The worry with the preservation of the ever-flowing, that was getting more and more used for the supply of the growing “Carioca” population, caused the Imperial Government, in the middle of the XIX century, to take environmental protection and recovery measures.

The Challenges of the Forest-city relation

New measures for the conservation of the park’s natural, historic and cultural resources are being made such as extending its area.

To harmonically extend the physical limits of the Park surrounded by urban areas, to further improve environmental preservation, demands the joint efforts of IBAMA, Rio de Janeiro’s City Hall, academic institutions and the society as a hole represented by the Conselho Consultivo da Unidade.

The well-preserved forests at Covanca and Petros Forros are among the ones planned to be incorporated to the Tijuca National Park, as well as the Lage Park, located at the neighborhood of Jardim Botânico in the surrounding areas of the Tijuca National Park.
A higher impact measure was the one to proceed with the hillside reforesting, which started in 1861, under the leadership of Major Manuel Gomes Archer, with the plantation of numerous trees of several species, exotic and native. In a period of 13 years over a hundred thousand trees were planted.

The Forest’s recovery process continued in 1874, under the administration of Baron D’Escragnolle, with help from the French botanist and landscapist Auguste François Glaziou. In this period, the area was beaftified with bridges, lookouts, retreats and lakes. At the end of this work, the Tijuca Forest counted with some 130,000 trees planted and in growth. The rebirth of the Forest happened gradually over the years, combining the work generated by the human forces and the nature forces, it became one of the loveliest retreats in town. Very little was made after the Republic Proclamation in 1889, leaving the area forgotten for almost half a century.

After the end of the XIX century, the City growth is intensified and becomes one of the main factors to interfere in the natural hillside balance. At this time, new actors step into scene, substituting the farmers and the inventive power owners, responsible for the burning and cutting that destroyed large forest areas, causing the impoverishment of the soil. Therefore, the growth of Rio de Janeiro City repeats the fundamental aspects of the social distribution: the higher income class pay the exorbitant prices demanded to live in the city nucleus, in the neighborhoods well endowed of infra-structure and urban equipments, and the lower income class is located in the unfavorable areas, called peripheries, deficient in services, and always farther from the job centers, with all the implications concerning quality of life.

The occupancy of the hillside has always been a problem of the Carioca population that, at first, took the lower and swampy zones, badly drained, where the water available, from wells, was scarce and briny. The approximated population, according to statistics estimative from the middle of the XIX century, was of 400,000 individuals and would need 60,000 liters daily.

Initially, the hillsides most favorable from the Maciço da Tijuca suffered deforestation and cuts in the terrestrial profile for the implementation of streets needed for the new occupation areas to be available for real-state speculation, aiming to attend the middle to high-income class population. Only the very steep hillsides or flooded areas, little desired by the civil construction industry were left available. It is noticeable then, that after the 50’s, with the migratory fluxes intensified, these areas became occupied with low-income population agglomerations, forming the slums that are characterized by a poor situation in terms of urban services. Today, the situation has become alarming because of the severe economical, social and environmental unbalance that has been marking the City’s development.

Simultaneously to the City growth, the Tijuca Forest has been renewed under the supervision of Raymundo Ottoni de Castro Maya, from 1943 to 1945. At this time, the Forest assumed its present feature. It was, then, made the demarcation of its limits, work trusted to the architect Wladimir Alves de Souza, including the sketches of the entrance gates. The landscapist Roberto Burle Marx helped in the new accesses tracing, reforming, as well, the old dam and transforming it in a lovely retreat, intensified by antique low fence from the Campo de Santana that were taken to the Forest.

In this context, the Tijuca and the Paineiras Forests, created in 1861, can be considered the origin of the Tijuca National Park.

Since the begining of the portuguese Rain Forest colonization, indians already used the trails cutting the Forest.

The Creation of the Park

In 1961, the forests belonging to the federal government, Tijuca, Paineiras, Coronado, Gávea Pepema, Trapicheiro, Andaraí, Três Rios and Covanca were grouped to form Rio de Janeiro’s National Park.

In 1967 the park’s denomination was changed and became Tijuca National Park. New limits were drawn and area take by favelas or not recoverable were excluded.
Map of the Park
### Historical Context

#### Fund Source Analysis

The Tijuca National Park has several sources of financial income. Managing such resources is not a trivial task, and unfortunately there are several bureaucratic steps involved from the acquisition of the resources to its final use. The diagram below show the path followed by all resources before they become available to be used by the Park. There are three main sources of income that can be identified from the diagram: the National Treasury, the City Hall and donations.

Resources coming from the National Treasury run a long way since the collection in the Park until its discharge to cover the Unity’s expenses. Initially, it can be identified two main sources to this income: the collected income (involving the ticket charge to the Corcovado; the environmental tickets and fees charge; filming fees; etc) and the collected reimburses (rent from the restaurants and shops). The financial collection of the Park is considerable in comparison to other federal conservation unities in Brazil, being constituted of around two million Reais. This collection is directly sent to the National Treasure, being close to 50% secured to return to the Park. To this value is added other budget resources destined by the IBAMA general planning. Finally, of this total resources (income, reimburses and other budget sources) a fraction is directly sent to the Park in form of financial resources (around 20%), other fraction through the payment of the IBAMA employers and another part – concerning to expenses with security and cleaning outsourced companies – is received first by the Serra dos Órgãos National Park (PNSO), also in Rio de Janeiro State, and then reviewed to the Tijuca National Park through the previously said services.

The second large source of income is the Municipal Government of Rio de Janeiro, who administrates the Park alongside with the IBAMA, through the co-management convention. This resources gets to the Park as payment for the public use areas cleaning and conserving, including roads and equipments, environmental inspection through the municipal guard; intervention for the maintenance of the hillsides; reforesting programs; attendance to public schools and implementation of physical borders in the higher populated pressure areas. These services paid for the city are managed by the government itself, excluding the Park from participating in these items administration.

Finally, the third big source of the Park’s income are the donations received from the NGO’s, private companies involved, mainly in advertising shootings; and fomentation funds for the environmental conservation.

It will be explained, later ahead in this Plan, the strategies for increasing the Park’s financial income sources, in which is highlighted the environmental compensation of telecommunication companies, installed in the Park’s interior, and the development of new partnerships with potential investors.

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**The shared management system between IBAMA and City government is a successful exemple of partnership between two Public Power spheres working together for a common goal: the conservation of the Tijuca National Park**
The Tijuca National Park (Rio de Janeiro, Brazil), Business Plan

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The Tijuca National Park basic budget derives from two sources of the public sector: the IBAMA (national organ) and the Rio de Janeiro Municipal Government. The amount from each source are exposed in the following table of contents. The total budget received for Parque raised, in average, around R$ 960,000,00 per year between 2000 and 2002, even with the fall in 2001. The total nominal increasement was of approximately 45% (from R$ 4,222,778,00 in 2000 to R$ 6,140,933,00 in 2002).

Adjusted to its real value, which means, considering the inflation, the Park’s basic budget still presents a raise, although not so meaningful. It has been, in total, an average real raise of approximately R$ 419,000,00 between 2000 and 2002. Meaning a real variation of 19,8%.

The big raise in 2002 budget is explained by the large amount of resources raised for investments. Two projects were specially contemplated: the Corcovado revitalization and the Ecolimits program, which seeks the protection of the Park’s limits. Analising only the resources destined to the current expenses (discounting the investments), there wasn’t a meaningful variation in nominal terms, but there was a real fall of around 20% from 2000 to 2001. This real budget fall preoccupies, because it makes harder the maintenance and enlargement of the Park’s activities, considering that the current expenses are growing.

Since the inflation in 2002 was 25,3%, well above the 10% from the two previous years, it increases the need of raising the resources received by the Park. Because of that, the Park makes a big effort to keep and amplify its partnerships with NGO’s, federal government foundation and with the private initiative, like an alternative way to capture resources. The Park, through the partnership with the academical area and the Ipanema National Forest, has also been developing studies for the implementation of new economical instruments aiming the financial sustainability.
Increased Cost Analysis

The financial resources needed for the Tijuca National Park management aren’t unchangeable throughout time. There is, as an answer for different causes, a continuous raise of most involved expenses. Generally, the costs tend to grow as a reflex of the inflation, meaning that, even if we disconsider the inherent properties of the Park’s current activities, there is a macro-economical tendency to raise these activities.

This consideration assumes a seminal importance in developing economies, like the Brazilian, where the inflation impact in the prices behavior is frequent, even if it is more controlled than in the previous years. Between 1998 and 2002, the annual inflation tax varied from 1,8% to 25,3%. And in this same time frame the parlay inflation was of around 86%.

Analysing the most specific proprieties of the activities concerning the Park, it is identified as main cause of the costs raise is the growth of the urban pressure to which the Park is submitted. Totally inserted in urban area, the Park suffers with threats uncommon to most Brazilian conservation units, mainly concerning the continuous growth of low income communities by its immediate limits, threatening its biological integrity and the maintenance of its ecological components and services.

This pressure to the Park’s phisical limits is not restricted to the lower income classes: there is also threat of luxury condos and summer houses growth in its surroundings. Even though this high income pressure is phisically less significative than the slums, its detention is more complicated due to the facility of its owner to hire judicial assistance which delays, and in some cases, stops the retrieval of the constructions.

This urban pressure generates a growing need of more inspection on the Park’s surroundings and frequent measures of containion of phisical delimitation of its limits. These measures correspond to costs that are continously raisen, either through the admission of more qualified personnel to proceed the field inspection and technical geoprocessing works, or through the need of installation or replacement of the Park’s phisical limits and the reforesting and environmental replenishment of the areas harmed by the invasions.

The demographic growth of the city also represents a higher visitation tax, with that, higher will be the costs concerning ther visitor’s services: infrastructure maintenance and public use, personnel admission to act in the Park’s users reception, costs related to environmental education and even visitation control.

It may be listed, yet, the raising costs related to daily traveling of the administrators and other employees, intending their recycling, continuous improvement and the involvement with scientific and/or management advances in congresses or technical encounters.

* Vellosia – part of the Park’s exuberant flora. 
Analysis of Expenditures

The analysis of the costs includes all the current expenses (day-to-day operations, not including the investments) that the Park held during the year, financed by all the available resources sources.

The biggest expenses are those with services, that in 2002 represented 66% of the total. The large amount of this category is explained by the big need of workers that a park inserted in the urban area as large as the Tijuca National Park has. A good part of these workers are supplied by outsourced services, by IBAMA (the patrimonial security and installations cleaning services), and by the City Government (the cleaning and conservation of public areas and municipal guard).

This need for workers also explains the second largest source of expenses: the personnel expenses, that were of around 23% of the 2002 total. The other expenses were smaller than 5% of total, being the costs with material and equipments (4.7%) the most meaningful of them.

Historically, all the Park’s operational costs grew between 2000 and 2002. Not considering the inflationary corrections, the services had a small raise (9%), while the expenses with personnel more than doubled (which was accompanied by the increasement of training costs). The largest variation was with equipments and material, where the raise was higher than 800%.
Visitation

In 1998 the non-governmental organization ISER completed a research about the Tijuca National Park User Profile, which has been updated every two years. The research was made by a 15 interviewers team and one supervisor that worked in four Park areas: Corcovado, Tijuca Forest, Paineiras and Pedra Bonita. Between the focused points it raised the social-demographic profile of the frequent and eventual visitor of the Park and their disposition of these visitors to work as volunteers and to pay for the offered services.

It is estimated that one and a half million people visit the Park every year. The most visited place is the Corcovado, 53.2%. The second option is the Tijuca Forest, 33.2%. Paineiras and Pedra Bonita attract 13.6% of the visitors. The most visited months, in order of number of visitors, are December, January and February.

The public who visits the Park is very eclectic: national and foreigner tourists, sports practitioner, excursionists etc, compose the visitors’ population and Park users. The frequent visitant are those who visit the Park more than once a year and the eventual had visited the Park for the first or last time more than a year ago.

Half of the eventual visitors are residents in the Rio de Janeiro State, due to the urban area location of the Park, and the other half is nationally distributed in 21 states, with highlights for São Paulo and Bahia.

The Park can collect approximately four million and four hundred thousand reais per years with the charge of a ticket, with the present charge at the Corcovado of R$5.00 (five reais), and supposing a charge of R$3.00 (three reais) at the other points (Paineiras, Tijuca Forest and Pedra Bonita). The supposed values were estimated considering the willing of the public to pay. The ones who visited the Park for the first time were those who showed better disposition to pay: the average cost of a ticket would be R$4.60 (four reais and sixty centavos). In 1999, the IBAMA stipulated the Corcovado ticket fee in R$5.00, in agreement with the research made, still being possible to estimate that would be a maximum loss of only 23% of the visitors in the points where there is no charge for tickets in the present.

In 2002, due to the work of the installation of the automatic stairs and the panoramic elevator in the Corcovado, the automobile access was interrupted for 6 months, causing a substantial fall in ticket collection.
Current Park Operations

The Business Plan is divided in two expenses categories: Maintenance & Operations and Investments. The expenses in Maintenance & Operations are those needed to supply the costs in the Park’s current activities like gasoline, telephone bills and salaries. The Investments refer to the most meaningful financial amounts spent in a single period of time – punctual expenses. They are generally applied in interventions for the recovery and revitalization of public areas, building of new edifications and projects consider of high relevance to the Park.

This current part will address to activities contained in the Maintenance & Operations category. The valid operations to the Park’s activities are divided in four functional areas that admit 19 programs. The Park technicians filled a detailed form for each program and described the Park’s daily activities, quantifying the associated financial needs.

After that were elaborated operational patterns describing each attribution and responsibility to reach the established goals. The patterns are used in order to determine the total need of financial resources for the accomplishment of the programs’ pattern tasks. As a last step, the Park’s current activities are compared to the operational patterns to identify the lacks between the demanded and the available resources.

The following pages dissert on each one of the functional areas.
Resource Management and Protection

This functional area is destined to protect the Tijuca National Park’s natural and historic-cultural resources. It is responsibility of this area: environmental monitoring; fauna and flora and cultural and archeological patrimony research and the projects concerning the environment control, as well as the inspection and patrolling. There are six area programs: i) Management and research of the fauna; ii) Management and research of the flora; iii) Management of cultural patrimony and historic-cultural research; iv) monitoring and geoprocessing; v) anthropic pressure; and vi) fire.

The total expenses of this functional area in the 2002 fiscal year was R$814,640.00 and has been used a total of 23.30 FTE for personal. The budget deficit is of R$589,650.00 and 26.00.

**Wildlife**

Aims the Park’s wild fauna species’ diversity maintenance. Its activities involve: the Management of the exotic fauna species and the domestic invader, inventory keep up, populations monitoring and researches concerning the enrichment through the seed spreaders species. The expenses held by this program were of R$223,500.00 (which represents 27.44% of this functional area’s total expenses), and was used 4.5 FTE. The total required is of R$337,600.00 and 10.10 FTE. The deficit is of R$114,100.00 and 5.6 FTE.

**Vegetation**

The program comprehends two activities: the Management of exotic species and the reforestation. The Management of exotic species tries to reestablish, in the Park area, the Rain Forest’s original condition, through the elimination of the exotic specie Artocarpus Hetherophilus, also known as the jack tree, which was introduced during the Maciço da Tijuca occupation. Its perpetration has been happening in an unordered way, compromising the ecological balance of the ecosystem to be protected. Meanwhile, the reforestation intends to recover the Parks degraded areas with the planting of the Rain Forest’s ecosystem native species.

The program total expenses was of R$225,600.00 (31.38% of the total area), making use of 7.00 FTE. The demanded volume of resources is of R$371,050.00 and 16.0 FTE. The deficit is of R$115,450.00 and 9.00 FTE.

**Archeology, Historical and Cultural Preservation**

This program contains activities concerning the conservation, research, interpretation and diffusion of the Park’s historic-cultural patrimony, including its archeological heap (around 9,000 pieces). It realizes the technical processing of all the cultural goods’ heap, and responses for these goods inventory, its category classification, the historical and museological research, the conservation state identification, the use and restoration diagnosis, the geological and photographic localization registry, the technical registration and the packing.
This program interacts with the others aiming to indicate the built patrimony use plan and valorize and diffuse the Park's cultural patrimony through the making of brochures that brings out the heap and the institutional historiography.

The expense was of R$32,100.00 (3.94% of the area total) and 0.40 FTE. The cost needed is of R$102,100.00 and 4.40 FTE. The deficit was of R$70,000.00 and 4.00 FTE.

**Data Management and Mapping**

This program involves the Tijuca National Park Geographic Information System implementation. It considers the geoprocessing as a group of instruments and techniques of cartographic images manipulation and updating which supports the inspection and monitoring activities.

Through the Park’s shared management convention between the IBAMA and the Rio de Janeiro City Government, all the Geographic Information System (GIS) and the Data Base is realized by the Municipal Institute Pereira Passos.

In 2002, were spent R$20,000.00 (2.46%, the smallest percentage applied in the area), Highlighting that the Park “lotado” employee worked in the program. The demand is of R$141,000.00 and 2.00 FTE, and the deficit is of R$161,000.00 and 2.00 FTE.

**Fire**

The program seeks the implementation of fire prevention and control activities in the Park and its surroundings, through educational campaigns, making and distributing informative brochures, etc. It counts with a fire brigade hired to work in the higher fire occurrence months.

The brigade acts alongside with the firemen and helicopter from the Rio de Janeiro State Government in the events with air and terrestrial integrated actions needs.

In 2002, were spent R$ 83,320.00 corresponding to 10.23% of the functional area, using 8.20 FTE. The demand is of R$115,720.00 and 9.20 FTE, leaving a deficit of R$32,400.00 and 1.00 FTE.

**Border Protection**

It acts minimizing the impact caused by the Park’s surrounding areas occupation provoked by the real state expansion and the lower income communities’ occupation. It involves reforestation activities, physical marks implementation (Eco-limits project). It interacts with the Park’s environmental education program seeking to prevent invasions.

Were spent R$200,120.00, corresponding to 24.57% of the area, and used 3.20 FTE. The demand is of R$316,820.00 and 5.00 FTE. The resources’ deficit was of R$116,700.00 and 2.80 FTE.

**Biological Corridors as a strategy for the biodiversity preservation**

Among the countless benefícies that the Tijuca National Park offers to the Rio de Janeiro city inhabitants, one of the most importants is that its dense forest keeps the stability of the hillsides. But the maintenance of the lasting of these woods is proportionated by the biological diversity, that is kepth through the permanent genFTEc exchange. Threatened by the growing urban pressure, the Forest tends to isolation, once these exchanges become rare due to the lack of connection with other woods or protected areas. The main challenges for the conservation of biological diversity are the time and the lack of information, because everyday some species disappear and others are to be found. We cannot say what sustainability is, nor what means sustaintable and even say what is the critical size for a protected area nor the correct needed percentage for protection of its biological diversity. Because of it, we need to continue to realize scientific studies to understand better what we are trying to preserve.

Public power effort from the managers and researchers must be made so that public studies and politics are implemented intending to promote the establishment of the biological corridors in the protected areas of Rio de Janeiro, guaranteeing the lasting of this urban forest.

Maria de Loudes de O. A. Figueira, Biologist
Public Use

The Public Use functional area, which represents the visitors interaction activities with the Tijuca National Park environment, unites four programs: i) Cultural and Environmental Education and Interpretation; ii) Visitor’s Services; iii) Tourism and Ecotourism; and iv) Patrimonial Security. The main responsibility of this area is to give attention, information (education) and recreation to the visitor, aiming to proportion to the Park’s user the maximum amount of welfare and knowledge. Since all the programs involve the relationship with the visitors, lots of activities are the same as other programs’.

During fiscal year 2002, the Tijuca National Park spent R$643,523.82 in this functional area, using 10.20 FTE of servers. A need of R$1,529,373.82 was identified and 36.70 FTE. The deficit was of R$885,850.00 and 26.50 FTE.

Cultural and Environmental Education and Interpretation

The Environmental Education program contributes to promote an understanding of the unit’s use by the visitor. The work seeks to amplify the participation of the citizen in the environment defense and the improvement of life quality, counting with non-governmental public institutions’ (NGO) support. In the used strategies are highlighted the capacitating integrated actions, production of educative brochures and integration with the surrounding communities. At the moment it becomes needed a action amplification, aiming to reach a bigger people universe and accomplish, gradually, a percentage of more expressive multiplying agents to the realization of the proposed goals.

In the capacitating area are realized courses, seminaries and workshops for professionals that act in the Park and for the visitors interested. The production of educative material is linked to the capacitating and researching actions, with a series of publications for the several involved segments (teachers, technicians, ecotourism guides, community agents, unity’s and surrounding communities residents).

This program spent R$129,900.00 in the fiscal year of 2002 (around 20.19% of the expenses in the functional area) and 2.50 FTE. The needs of the program still demands R$191,450.00 and 6.00 FTE to reach the total value of R$321,350.00 and 8.50 FTE.

Visitor’s Services

The program’s purpose is to attend the Tijuca National Park visitor’s demands and offer a gamma of technical information concerning the conservation unity and the environment in general. Amongst the responsibilities of this program are: operate an information, studies, arts, education and culture center; to spread the science researches and the technical work realized in the Park and in other system’s conservation unities; to educate and to create conscience in its users, visitors and surrounding population for the rational use of the environment resources and to value the Brazilian genFTEc, natural and cultural patrimony; to realize courses, lecture cycles, seminars, workshops and expositions; to
foment the environmental, cultural and institutional interchange; to discuss the men’s position in the biosphere; and to keep available library, historical archive, cd’s and videos for consultation through Data Base.

In the year of 2002, the Visitor’s Service spent R$75,735.60 (11.77% of the total area expenses), using 0.60 FTE. Considering the need to increase the program, the deficit was of R$160,400.00 and 9.00 FTE, to reach a total of R$236,135.60 and 9.60 FTE.

**Tourism and Ecotourism**

This program’s activities have the purpose of attending the Tijuca National Park users and visitor’s demand with guided visitation, presenting information concerning history and environment. It realizes a lecture cycle and courses about the environment thematic, besides the technical activities for trails monitoring. This program also unites the leisure and sports in touch with the nature activities.

The guided visitation is part of the Ecoadventure project, in which are realized walks accompanied by information about the Park history, environmental education, cultural patrimony, conservation and the environment itself. The lecture cycle and the courses are destined to the public and private students, university students and surrounding communities, with the goal of enlarging their perception over forest values, life quality, history and the forest-city relation.

In 2002, were spent R$101,700.00 (15.80% of the area total) and used 6.90 FTE. The program demand is of R$473,700.00 and 17.40 FTE. This program’s deficit is of R$372,000.00 and 10.50 FTE.

**Patrimonial Security**

Aims to use in a continuous way the armed patrimonial inspection services for action in the Park’s four fixed stations, comprehending: administration seat, entrance and exit forest sector gates, toll station for collection of the Corcovado tickets. Are inspected the public stations and roads and fixed stations during 24 sub sequential hours. The company hired still realizes the mobile inspection of all the occupied stations, promoting the communication between them through the radio system. This way, in case of any eventuality, the Park’s leadership, the IBAMA environmental inspection and the municipal guard are activated.

It was spent R$336,188.22 (52.24% of the functional area) and used 0.20 FTE. There is a need of enlargement of the inspection in the other Park access areas, through the cost of more R$162,000.00 and 1.00 FTE. To coordinate the patrimonial guard services. The total need of resources is R$498,188.22 and 1.20 FTE.

The Tijuca National Park, which I consider a “carioca emerald”, is a jewel rich in biodiversity and culture, cenary where the natural resources interacts with art, history, leisure, sports and tourism. In it the cultural patrimony blends, enlaces in perfect harmony. In this unique universe several interfaces between men and nature appear, creating in it exceptional characteristics. After a long historical process of drastic interferences, we have today a legacy that qualifies the Park as the best ecologic tourism option for cultural leisure and recreation in Rio de Janeiro, to where runs users and visitors, sportsperson, educators and students, motivated by several interests, and in it absorb energy and learning captured through observation and living, in an unforgettable experience.

**Ana Cristina P. Vieira**
Culture and Historical Patrimony Coordinator.
Maintenance of Infrastructure and Equipment

This functional area realizes the cleaning and maintenance and conservation of the Park’s infrastructures and equipments of the public ways and leisure areas (roads, tables, barbecue, etc); of the installations (washrooms and building installations); of the acquisition and maintenance of the vehicles as well as the trails. Most of the activities are realized by companies hired by the IBAMA and the Rio de Janeiro City Government, in distinct programs.

In fiscal year 2002, the Tijuca National Park spent R$1,083,690.46 in this functional area, using 6.00 FTE of servers. It was identified a need of R$2,318,810.46 and 28.00 FTE. The deficit was of R$335,120.60 and 22.00 FTE.

Public ways and leisure area maintenance services

The Park disposes of several retreats for leisure with barbecue, table, seats, sports practice equipments and kids recreation. The cleaning and conservation services of the public areas are realized by the Rio de Janeiro City Government, through the Municipal Urban Cleaning Company (COMLURB), and the equipments installation (tables, barbecues, etc) as well, including 40 km of roads by the also municipal Works Direction.

These services can be found discriminated in the Work Plan of the convention for the shared management of the Tijuca National Park celebrated between the IBAMA and the Rio de Janeiro City Government, renewed in 2001. The public areas maintenance services realized by the COMLURB involve a contingent of 57 employees that work in the conservation of the squares, retreats, roads, etc, in all of the Park’s areas, except in the Corcovado monument. Through the renewal of the convention between IBAMA and the Rio de Janeiro City Government, in October 2002, it is intended to raise the number of employees and consider the realization of these services in the Corcovado area as well. Like this, there will be no need to hire any physical person, only to increase the effective services already developed.

The financial resources guaranteed by the City Government is R$1,500,000.00. The general expenses with this program is R$1,618,197.16 (corresponding to 81.586% of the functional area) with the use of 1.00 FTE. The demand is of R$1,671,707.16 and only 1.00 FTE for one coordinator placed in the Park. The deficit is of R$53,510.00 with no need of additional FTE.
Installations cleaning services
The usefulness of the installations cleaning services executed in the Tijuca National Park, are in conformity with the specifications contained in the ruling services’ Reference Term. The Park has three building installations: the administrative seat, the visitor’s center and the researcher house, plus seven washrooms in the Tijuca Forest, Pedra Bonita and Corcovado sectors for the public attendance and three inspection watch towers. Nowadays, the number of employees is below the ideal pattern for the services operation. However, due to the revision, every two years, of the contract firmed between the IBAMA and the company, these numbers are revised and raised according to the demand.

The budget resources spent in 2002 in this program were of R$100,107.16 (5.05% of the functional area) and 3.00 FTE. The need was of R$201,617.16 and 13.00 FTE, with a deficit of R$101,510.00 and 10.00 FTE.

Trails maintenance services
The work program seeks to maintain the Park’s trails in a way to protect and conserve its natural resources and to proportion good conditions to the Environmental Education and Ecotourism activities. Maintenance actions are considered important tools for the trails conservation, even changing the visitors and users posture. The Park counts with a reduced number of technicians that are totally involved in the attendance of other emergency activities, which makes impossible their participation, in an exclusive character, in this program. Likewise, due to the lack of employees and to the specialization required, others must execute this job.

It was spent R$22,100.00 (1.11% of the functional area) with the use of 1.0 FTE. The need is of R$168,100.00 and 12.00 FTE, being the deficit of R$146,000.00 and 11.00 FTE.

Vehicles and fuel
The program has the goal of maintaining and operating the use of official Park’s vehicles; arrange the adequate use of the vehicles and its legalization; keep updated the movement control; promote the conservation and maintenance; control the payment of tickets and fees; and keep a record and control the fuel consumption.

Today the unit counts with 9 (nine) vehicles acquired by IBAMA in 2002, presenting excellent conservation state. Those who no longer were in good use conditions will be alienated. This department operates according to the locomotion demand of all the other Park’s departments, especially of the inspection.

Were applied R$243,286.14, which corresponds to 12.26% of the functional area, with the use of 1.00 FTE. The program’s demand is of R$277,386.14 and 2.00 FTE, being the deficit of R$34,100.00 and 1.00 FTE.

Installations Maintenance
Tijuca National Park has three important building installations located in the Tijuca Forest sector: Administrative Seat, previously located in the Rio de Janeiro Botanical Garden and, since 1996, working inside the Park; Visitor’s Center, work started in 1998 and opened in 2001; Researcher House, built in 2002; new freeflight ramp access, shed and washrooms at Pedra Bonita, also in 2002. In 2003 was built the first handicaped ramp intending to ease the access to the panoramic landscape of the Cascatinha waterfall.

The investments realized demanded considerable financial resources. Aiming the installations maintenance the Park has counted with resources provided by the federal government, the Rio de Janeiro City government and the private initiative through donations and sponsorships.

Presently has been elaborated the project for the implementation of Park’s sub-seats at Represa dos Ciganos, area that suffers intense anthropic pressure, as well asthe construction of a laboratory behind the Researcher House. However, before the building of these installations it is intended to secure the financial resources needed to the building conservation and admittance of operationspersonnel.

Sónia L. Peixoto & Celso Junius – Tijuca National Park Managers, IBAMA and City government
Management and Administration

This functional area treats of the management and administration of the Park, uniting five programs: i) Personnel administration, bills payment, stockroom and patrimony; ii) collection and economical sustainability; iii) leadership; iv) planning and special projects; v) communication.

At the end of 2002 the Park has spent R$404,075.88 in management and administration, using 14.00 FTE of servers. It was identified a need of R$642,125.88 and 24.00 FTE to reach the planned goals, meaning a deficit of R$283,050.00 and 10.00 FTE.

General Administration

This encompasses all the activities related to human resources, purchasing, budget, financial records, stockroom, patrimony and management of official documents.

The program spent R$200,902.88 in the fiscal year of 2002 (around 49.72% of the expenses in this functional area) and 7.50 FTE. The need of the program still demands R$75,800.00 and more 5.00 FTE, seeking to achieve R$276,702.88 and 12.50 FTE.

Economic Sustainability

The tickets collection in Tijuca National Park is the second largest collection of the National System of Federal Conservation Units. The generated income derived from the following changes: i) Corcovado’s toll; ii) percentage generated through the collection of ticket fee from the railroad (ESFECO); iii) collection from shops and restaurants; iv) emitted tickets; and v) collections derived from fees for shootings. This program realizes the expenses control and develops projects for the Park’s economical sustainability.

The expenses gauged were of R$50,470.00 and 1.60 FTE, corresponding to 12.49% of the used resources. The noticed demand needed would be of R$83,100.00 and 3.60 FTE. The deficit was of R$32,630.00 and 2.00 FTE.

Park Leadership

Two directors, representing the IBAMA and the Rio de Janeiro City Government, administer the Park. It fits the federal leadership to administrate, direct, orient and supervision the execution of the activities competent to the respective unit, to proceed the budget and financial ordinance, to firm partnerships with universities, public,
Planning and Special Projects
It coordinates the planning and implements special projects. The Park’s Management Plan is outdated, being the last update made in 1981. In the end of 1997 it was proceeded the elaboration of a Participative Management Plan with the goal of proposing a new management model. In 1998, was elaborated the Park’s Strategic Plan seeking the establishment of goals, premises, vocations and strategic goals. Aiming to implement the goals of the Strategic Plan, it was created, in 2002, the Special Projects program. This program seeks to develop strategic projects for the improvement of the management; including the integration with other conservation unities located nearby or in the Park’s directly influenced areas.

In 2002 the expenses were of R$40,330.00 (9.98% of the resources) and 0.80 FTE. The financial deficit was of R$55,620.00 and 2.00 FTE, to reach the needed demand of R$95,620.00 and 2.80 FTE.

Communication
It implements the Park’s social communication, realizes the environmental and cultural markFTEng, through publicity projects. It controls the use of the Tijuca National Park’s name in commercial films and advertising pieces, videos and photos supervened of external requests and promotional from the conservation unity itself.

It is the most expensive program in the area (8.04%). In 2002 the resources were of only R$32,500.00 and 1.00 FTE. The need to operate would be of more R$69,000.00 and 3.00 FTE. The total demand was of R$101,500.00 and 4.00 FTE. Due to the personnel and financial resources lack, in some occasions the Park makes use of the social communications services from the Executive Management of the IBAMA in the Rio de Janeiro state and the City Government.

Visitor’s Center: Information and services for the visitors.

Special Projects

IBAMA and Rio de Janeiro City Government partnership:

Tijuca National Park forested area amplification

IBAMA/RJ Executive Management, Tijuca National Park and Ipanema National Forest partnership:

Environmental compensations derived from the communications undertakings, through the parameters established by the economic valuation of the impacts provoked by the telecommunication towers, broadcasting, and other likewise activities.

New economical instruments implementation, standard rules procedures and social control of the environmental compensations proposal.

Economic valuation of the environmental services.

IBAMA, City Government, Roberto Marinho Foundation and Friends of the Tijuca National Park Society partnership:

Education by Nature and Volunteers Program and integration with surrounding communities.
Finances

Financial Summary

The graphic on the side illustrates the location of the Tijuca National Park’s financial resources and the lack of each one of the functional areas in comparison to the resources needed for their perfect operation. Noticing that the functional area with larger deficit is the Public Use (58%), followed by the Resources Management (42%) and the Management and Administration (41%). The Infrastructure and Equipment Maintenance area (14%) shows a smaller, although meaningful deficit. In absolute values, the total deficit of the Park is of, approximately, R$2,100,000.00 per year.

In absolute values the infrastructure and equipment maintenance functional area is the one who needs the higher resources volume, being this, approximately the same amount of resources needed in all of the other functional areas together. This characteristic reflects the importance of the Park’s ordinary projects and actions continuity, lots of times disregarded when of the approval of the large works and interventions, that register the implementation costs but disregard the expenses needed with its maintenance.

Three of the four programs in the Public Use functional area show a deficit higher than 50%, being the Tourism and Ecotourism program the one with most deficit. The lack of necessary resources to this area is grief, keeping in mind the peculiarity that the Park is completely inserted in an urban area, being, consequently, very used for recreation and other things by the population.

It is also particularly grief the deficit in the Resources Management functional area, because it is about the main goal of the Park, which means, the conservation of the natural resources and maintenance of the environmental services generated by the ecosystem. The geoprocessing program is the one with most deficits inside this area.

The Management and Administration functional area is the one that shows smaller deficit in absolute values, because it is relatively less needed resources to this area in comparison to the others.
Besides the current operations realized at the Park, there are more demand for investments, mainly to assure the continuous improvement of the services held in the Park concerning its conservation and the welfare of the user’s population. The total deficit of investments is around 50% higher than the deficit in operations. It is mostly explained by the general lack of budget resources destined to the environment by the Brazilian governmental organs.
Priorities and Strategies

Maintenance and Operations Priorities

This section of the Business Plan treats of the maintenance and operations needs in Tijuca National Park seeking to support the activities in development and to stimulate the management.

1. Implement the Tickets Charge System
   **Cost R$10,000.00** aims to offer tourism and transportation services of better quality to the tourist and visitors at the Corcovado / Paineiras sector.

2. Update the Management Plan
   **Cost R$100,000.00** the Park’s plan was elaborated in 1981 and the IBAMA recommend it’s updating every five years.

3. Realize the Park’s agrarian raising
   **Cost R$120,000.00**: the project intends to realize the Parks agrarian raising keeping in sight the future regularization of its lands.

4. Update the fauna inventory
   **Cost R$160,000.00**: this project seeks to update the current status of the most sensible fauna, including the acquisition of specific equipments to the fieldwork use.

5. Update the flora inventory
   **Cost R$80,000.00**: this project seeks to update the current status of the most sensible flora, including the acquisition of specific equipments to the fieldwork use.

6. Build a Pergolade in the Visitor’s Center
   **Cost R$16,000.00** Intends to cover the external part to shelter a bigger number of visitors in the events and expositions.

7. Enlarge the Visitor’s Center Parking Lot
   **Cost R$32,000.00**: this intervention aims to enlarge the existing parking lot to fit more visitors’ vehicles in the Visitor’s Center.

8. Acquire a Copying Machine
   **Cost R$ 18,000.00**: the acquisition of a copying machine for the Park would hasten the administrative procedures and reduce costs, keeping in sight that the equipment currently used by the unit is rented.

9. Acquire Fire Fighting Material
   **Cost R$ 50,000.00**: purchase of consumption material for the operational support of the fire brigade.

10. Install Towers for Climbing, Rappel and Bird Observation
    **Cost R$ 22,000.00**: the towers would propitiate, in an integrated way, the observation of birds for the researchers and visitors, attending the research, environmental education, leisure and recreation demands.

11. Establish a functional integration for the Park management dynamization
    **Cost R$ 25,000.00 per year, during 2 years**: it is intended to hire a company to realize the interpersonal integration between the government and the unit-hired employees.

12. Implement the Interchange Program between Parks
    **Cost R$ 20,000.00 per year, during 5 years**: this program seeks to establish a partnership with other conservation units, national and foreigners, aiming training and technical and project’s interchange.

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O quati (*Nasua nasua*) is very common at the Park. A lot of visitors feed them inadvertently, which cause excesses in its population.
Investment Priorities

1. **Build an Electrical Net**
   *Cost: R$900,000.00*; it intends to attend the present demands of electricity in the Administration Seat, Visitor’s Center and Researcher House for the maximum work of its equipments.

2. **Install a new Telephone Net**
   *Cost: R$50,000.00*; the financial cost with systematic repairs in the net suggests the installation of a more adequate technological system that reduces the maintenance costs.

3. **Hire services for the Public Use area conservation**
   *Cost: R$330,000.00*; Conservation services of the gardens, tree pruning, herbal-sanitary treatment, conservation of the signalization system, etc.

4. **Hire services for the Park’s access areas control**
   *Cost: R$570,000.00* per year, during five years: this investment is justified because the unit have uncontrolled accesses for vehicle entrance and exit. This investment can contribute to assure the visitor better security.

5. **Hire a company for the building maintenance services**
   *Cost: R$120,000.00*; even though the Park counts with a patrimonial cleaning service, the unit still don’t count with building recovery services to maintain the building installations in proper conservation patterns.

6. **Implement a sanitary drainage net**
   *Cost: R$600,000.00*; it objectives to treat the effluent liquids that are emptied by the installations who offer visitor’s services.

7. **Implement the project nucleus**
   *Cost: R$ 45,000.00*; it intends to create a nucleus for projects elaboration and to permit the capture of new governmental or private resources.

8. **Charge for the hydric resources protection**
   *Cost: R$80,000.00*; elaborate economical instruments that seek the financial charge for the hydric resources protection promoted by the Park, aiming its economical sustainability.

9. **Realize studies to economically valuate the environmental services**
   *Cost: R$100,000.00*; the project intends to economically valuate the environmental services held by the Park for the population and propose new economical instruments for the financial sustainability.

10. **Implement the trail signalization system**
    *Cost: R$250,000.00*; to make effective the implementation of the indicative and interpretative signalization system of the trails.

11. **Demarcate the Park’s limits**
    *Cost: R$200,000.00*; the Park’s location inside the urban mesh increases the problems concerning the limits because of the strong anthropic pressure existing. It is intended to implement concrete marks every 10 meters in the higher-pressure areas.

12. **Implement communications and markFTEng consultanship**
    *Cost: R$150,000.00* per year, during five years: the communications and markFTEng services are of extreme importance to the Park’s conservation and to the Rio de Janeiro City’s image in the tourism ambit nationally and internationally.
13. **Build annexes for the Visitor’s Center**
   **Cost** R$ 190,000.00: the enhancement of the activities and events are creating a demand for the enlargement of the technical services, like the courses local that no longer fit the participants number.

14. **Implement a Science Club**
   **Cost:** R$ 16,000.00 per year, during 2 years: the project preview the creation of space for the scientific themes discussions to all of the segments who visit the Park (high school and university students, researchers, etc.).

15. **Restore chapels and retreats**
   **Cost** R$ 225,000.00: to restore the Park’s historical patrimonies like the Mayrink and Silvestre chapels, Chinese View and Emperor’s Table.

16. **Recover historical ruins**
   **Cost** R$ 965,000.00: it is about the recovery of the Park’s historical patrimony like the Midose, Humaitá, Moche and Vila Rica Farm Ruins seeking the historic memory preservation.

17. **Update the social-environmental diagnosis**
   **Cost** R$ 55,000.00: social-environmental updating o the Park’s surrounding communities, considered strategic for the conservation unit protection.

18. **Elaborate the Sacred Spaces project**
   **Cost** R$ 36,000.00 per year, during 2 years: this project seeks to enlarge the public conscience about the religious offerings in forested areas question.

19. **Implement infrastructure for Tree Climbing**
   **Cost** R$ 35,000.00: to install the infrastructure in the public use area to allow the practice of tree climbing, in a way to attend the visitor’s demand for this kind of activity, propitiating the leisure and delivering environmental concepts.

20. **Build and operate the First Coffee Cycle Archeological Site Museum**
    **Cost** R$ 700,000.00 per year, during five years: to implement the First Coffee Cycle Museum in the historical installation known as the Farm, aiming to preserve the Rio de Janeiro City historical memory, and the Park’s importance in the City’s urban and social construction.
Strategies to Reduce Costs

The Business Plan was realized in a participative way, involving the Park’s technical team in its contents elaboration. It was verified that the activities and actions that could contribute for the cost reduction has already been happening through programs, projects and partnerships. To the present Plan were selected some of the most important.

To Outsource Tourist and Transportation Services
The renewal and improvement of the tourism attendance infrastructure, through the private capital investment, present an interesting financing formula, due to the lack of public resources for the preservation of the conservation units. The implementation of the tourism and transportation services will reverse in countless benefices for the society, not only in terms of improvement of infrastructure and equipments, but also in using the Tijuca National Park visitation potential. Besides, the outsource of services will proportionate the creation of new job and revenue opportunities, reduction in security public expenses, maintenance of specialized personnel for the tourist attendance, specially in the Corcovado area. The outsource still seeks for innovative solutions, with strategic vision, to make possible private investments for the consolidation of a modern transportation system, in the correct way, environmentally speaking.

Environmental Certification – ISO 14.001
Searching for the adequate management and operation procedures, the Tijuca National Park has been developing a certification process, through the development of an environmental management system based in the rules of ISO 14.001. The system unites since the mandatory procedures of attendance of the environmental legislation until the fixation of environmental politics that aims to create conscience in all the institutional server, companies, governmental and non-governmental organizations that operate projects and services inside the Park. Trying to reduce the costs, are contemplated by the project: optimization of the energy use, utilization of the hydric resources and minimization of the garbage produced in the unit. The process is continuous and intends to increase the Tijuca National Park Management and conservation, and the environmental education, leisure and recreation programs.

Outsource New Services for the Public Use Areas
Due to the tourist and leisure character of the Park, the outsource of new support services and its permanent operation will help in the improvement of the ecotourism and cultural leisure. The logic of the implementation of new outsource services is that the company who wins the competition process, not only give the IBAMA a percentage of the financial resources collected, but also reduce, at the same time, the Parks expenses with security, maintenance and conservation, visitors attendance, etc. In some Brazilian conservation units, like the Iguaçu National Park, the outsourced services has been generating resources for the Nature Conservation Units National System and reducing the public budget expenses. In the context of the Iguaçu implemented model, the Tijuca National Park has been developing criteria for the effective of new outsourced services.
To involve a new part in the convention between IBAMA and Rio de Janeiro City Government
The convention celebrated between the IBAMA and the Rio de Janeiro City Government is renewed every two years. In October, 2003 it is intended the renovation of the convention and the inclusion of the Rio de Janeiro Botanical Garden, research entity of the Federal Government. The Botanical Garden will realize the research concerning jobs: flora raising, botanical systematic, herbal sociology, etc, and will collaborate in the flora Management programs already in development. The inclusion of the new partner will contribute to the reduction of costs with specialists and consumption and permanent material, and will act in the capture of new financial resources for the scientific projects execution.

To implement the satellite monitoring
The implementation of the Park monitoring through the Geographical Information System, will allow the cost reduction related to the Conservation Unit protection. The protection program operated by the Park inspection team is based in denunciation and procedures ruled by patrols through areas with higher probability of invasion and/ or anthropic pressure. The monitoring system via satellite will allow an inspection system more productive because of the better control of all the unit’s areas. There will be cost reduction because the inspection and the technical team will be able to act in a punctual way, in identifiable occurrences and with the equipment needed for the action, for instance, the number of available vehicles. Despite de demand of purchasing maps and ortopictures, in a medium time, there will be reduction in the expenses with personnel/ hour and equipments.

To Increase the Volunteering Program
The premise of the volunteer work is that the problems can be faced and solved by the common effort from the government, the private initiative, the third sector and the civilian society organizations. The program developed at the Tijuca National Park acts along with the visitors and users trying to get a conscient conduct in natural environments. The program combines a series of actions like unbundled volunteer work (oriented and trained by the Park team), maintenance and cleaning collective effort (eventual volunteer) and partnerships for the adoption of trails with non-governmental organizations. The volunteers act in multiple activities that generate administrative financial cost reduction, naming: maintenance and monitoring the trails; garbage collection; visitor’s information; guide services or public use area support and events in the visitor’s center; help in flora and fauna Management research activities; and pro-active manner in search of solutions to the problems that affects the Park.

Mayrink chapel, historical monument dated of 1863.
Strategies to Raise Non-Appropriated Funds

The Tijuca National Park, in partnership with the Ipanema/ IBAMA/ São Paulo National Forest and the support of the executive management of IBAMA/ RJ and the ecosystem direction from IBAMA, has been developing pioneer projects in the economical sustainability area for the management of the Brazilian conservation units. These projects involve studies not only for the Rain Forest bioma, but also for the other Brazilian biomas. These projects are innovative and involve teams from differentiated institutions like the IBAMA and the universities, uniting yet several aspects of the knowledge like ecological valuation of the environment and environmental legislation.

**Implementation of new economical instruments for the financial sustainability**

The subject of the lack of resources for the financing of the environmental politics highlights the importance of new economical instruments, like the compensatory measures of the impacts provoked by the communications undertakings, gas duct, oil duct and electricity net passage in conservation units, like recommended by the Brazilian environmental legislation, aiming to compatible the social-economical development and the environmental quality preservation and the ecological balance, imposing to the polluter and the predator the obligation to recover and/ or reimburse for the damage caused to the areas legally protected.

**To license the Tijuca National Park brand**

The brands confer an inspiration or aspiration, because they are linked to original and identifiable ideas. According to research from an English advertising agency, it was noticed that there is a true devotion between the consumers, a march after the built brands in several segments. This project objectives the use of products with the Tijuca National Park brand as a fountain of collection because of the royalties that can be used for application in the Park, in projects and/ or services of Management, public use, administration, maintenance and conservation, bringing the costs down.

**To charge for the protection of the hydric resources proportioned by the Tijuca National Park**

The Brazilian legislation recognizes the water as a limited natural resource, endowed of economical value. The national politic of hydric resources makes explicit the procedures for planning and managing hydrographic basins, aiming the approval, charge and environmental compensation by any undertaking or economical actor that uses the water for particular purposes. What is glimpsed with a compensation mechanism to the conservation units for the regulation and supply services of good quality water is the recognition of the importance of maintaining the ecosystem functions in areas with intact forest resources, or to allow that these resources are recovered.

**Visions of the Tijuca National Park**

“Countless little rivers snake around through the virgin forest, exhaling a pleasant temperature; offering to the thirst traveler a delicious and limpid water and are weaved in mold carpets…”

Auguste de Saint-Hiliaire

“… in the high parts, waterfalls running through naked rocks formed equally white dots, although they shone like stars...”

Debret

In the analogy to water uses...

“No river is, by itself, large or abundant, it’s the fact of receive and carry along several affluent that makes it like that.”

Nietzsche
To Create Partnerships With Tourism Services Operators
The companies who operate with tourist services in the Tijuca National Park don’t help with the maintenance and conservation of the Park area. According to control raised by the entrance and exit watchtowers of Tijuca Forest, 30,569 people visited the sector during one of the most tourism movement months (January). The operator companies charge, in average, R$100.00 per tourist. Considering it would have paid only R$1.00 per visitor, the Park could have counted with R$30,000.00 in the month of January. Two options could be implemented: i) the charge of tickets in the value of R$3.00 in the sectors of Tijuca Forest and Pedra Bonita or ii) the establishment of partnership with these tourism companies, aiming to collaborate in maintenance and conservation services for the conservation unit.

To Increase and Start New Partnerships
The Park already counts with lots of partnerships from the public and private sectors. One of the largest investments realized in the Park was consolidated through the partnership with Roberto Marinho Foundation, a non-governmental organization, and two companies from the private sector, Real Bank and Gerdau Group. It was the Corcovado recovery and revitalization project. The amount of financial resources derived from this partnership was of R$4,857,000.00, plus the resources given by the IBAMA and the Rio de Janeiro City Government.

The partners still invest in Environmental Education programs, like the Education by Nature project. The Friends of the Park Society also helps, in the sense of resources caption from private initiative. The company Repsol invests in the programs of selective collection and maintenance of the Park’s vehicles with the goal of increasing the inspection system. These are only a few examples of partnerships that are working well. The Park’s administration proposal is to increase the existing and enlarge the fan of collaborators, having as consequence the entrance of new resources.

To implement the Business Plan for resources caption
With the realization of the Tijuca National Park Business Plan it was preceded a deep analysis of the expenses, the operational system and the investment priorities. It is intended to implement the Plan as one of the Park’s strategic planning instruments, as well as use it for capturing of financial resources alongside with private and governmental institutions, national and foreigners. The study realized will also collaborate in the construction of a control and social participation system in the appliance of the financial resources applied or managed by the Park.

To implement biological corridors
Starting with public and non-governmental organizations partnerships, the Tijuca National Park can search for financial resources in national and/ or international sources, aiming the implementation of biological corridors and participation in the future Mosaic Counsels. The resources can be sent to the Park’s directly influenced areas and to the corridors’ conservation, seeking the biodiversity found in the Rain Forest bioma preservation. Today, the Park’s technical team develops studies for the implementation of the corridors connecting the unit’s sectors and participates of the discussion about new municipal and state corridors with national and foreigners environmental agencies.
Proposal of Management of the Compensatory Measures of the Impact Provoked by the Telecommunications Undertaking

The protected natural areas have in common problems generated by the lack of financial and human resources, turned to its operation, maintenance and investments in programs previewed in the Management Plans. Associated to this lack of financial resources, it is noticeable a fast disguise of the environment because of the urbanization process developed around some of this units, affecting, in a substantial way, the cultural, historical and environmental patrimonies. It is also observed the intensification of the interference inside the Conservation Units, keeping in sight that lots of them are preferential and strategic locus for the installation of communication undertakings as broadcasting towers and antennas, telecommunications and other likewise activities, as well as areas used for water capture, passage way of the electric energy transmission, ducts passage and other activities also considered to be potentially pollutant and cause of environment changes.

The retraction of these installations is very hard or even impossible, once it would touch not only the radio, cellular telephony and television broadcasting stations, but also the governmental organs including the ones of public security, and would affect the services proportioned to the population. Knowing of this impossibility, it was elaborated a study seeking the construction of a model of economic valuation that held the environmental impacts provoked by the considered installations and the juridical instruments pertinent to this question’s regulation, composing the controlling instruments and monetary compensation sources that could be applied in the protection and recovery of the Conservation Units.

In this context, it is understandable that the activities that cause harm to the environment, provoking permanent environmental impact, are obliged to recover and/ or reimburse for the caused impacts through the environmental correction license, to the units of sustainable use and the celebration of the Conduct Adjustment Term for the units with integral protection.

The pioneer work to establish the Economic Valuation of the Impact in Conservation Units Model: communications undertakings started in 1997 by the Tijuca National Park administration and deepened by the Park’s team, the leadership of the Ipanema National Forest/ IBAMA/ São Paulo, that is already implementing the model, and consultants from the university in 2002/ 2003.

\[ VT = \frac{P1 + P2 + P3 + P4 + P5}{r} \]

onde,

- **VT** = Valor total;
- **P1**: Impacto de perda de área;
- **P2**: Impacto sobre perda de visitação;
- **P3**: Impacto sobre perda de produção de bens;
- **P4**: Impacto sobre recursos hídricos;
- **P5**: Impacto sobre perda de serviços ambientais;
- **r**: taxa de desconto oficial

Antennas located on the top of Sumare.

Parna-Tijuca collection in 2002 and potential of the compensations driven from the ones with negative impact of the communication undertakings in the Tijuca National Park.
The convention between the IBAMA (Brazilian Institute of Environment and Renewable Natural Resources) and the Rio de Janeiro municipal government is valid since 1999, being renewed every two years. In 2001 the partnership also united the Lage Park, urban conservation unit contiguous to the Park, under federal tutelage and, for its renewal in 2003, it is intended to include as a new partner the Rio de Janeiro Botanical Garden, in the scientific research.

The specific goals of the Shared Management are the enlargement of the Tijuca National Park area, with the inclusion and conservation of the Lage Park natural, historical and cultural patrimony, whose area is contiguous to the first and shelters meaningful Rain Forest bioma species; and the development of the tourism, environmental and social-economical complex of the region, before investments in infrastructure, equipments and human resources capacitating.

This partnership seeks to guarantee the Management, the inspection, the maintenance and the conservation of the referred conservation units in an optimized way that adequate and turns compatible its use.

In the shared management it fits to IBAMA guarantee that the financial resources generated through the collection of fees and services are applied in the implementation of projects in the Park, enhance the management instruments, maintain the human resources, as well as the costs concerning these, maintain the payment of maintenance, goods and equipments expenses, exercise the normative ability of control and inspection and manage technical teams in projects execution. To the municipal government competes maintain a Tijuca National Park Municipal Nucleus Support linked to the Environment Municipal Secretary, guarantee the cleaning and conservation of the public use areas, maintain in the units the Environmental Defense Group – GDA and the Tourist Support Group – GAT personnel, involve other municipal organs in the support to Park’s concerning activities, manage municipal technical teams in the execution of programs and activities in the referred parks.

The management model considered must also promote participation mechanisms from the actors who interact with the conservation unit, in a way to secure the necessary means to its effective interlocution, as well as to assure to the city population and other visitors the conditions to satisfy their cultural, educational and recreational needs when visiting the referred parks.

With the municipal participation in the Park management, guaranteeing the public use areas’ conservation, reforestation and ecolimits and the school attendance, since 2001 the federal resources could be used in the construction of the Visitor’s Center, that since its inauguration already attended more than 100,000 visitors, in the implementation of the PreviFogo, enlarged the Management and environmental education programs and the start of the scientific production process, with the divulgation of works in national and international ambit.

In 2002, the resources involved in the Park by its partners were in the order of R$6,000,000.00, 50% given, equally, by each of the managers. Today, the IBAMA contributes with more than 100% of the financial resources collected in Corcovado tickets.

Eucaliptus Grove: despite being an exotic specie they lend great beauty to the Park’s nature.
Partnerships of the Park

The Tijuca National Park counts with several partners that collaborate in projects, services and dialogue with the society. They realize partnership with the Park seeking to establish a technical, educational and cultural cooperation regimen, sending effort to the Tijuca National Park natural, cultural and historical resources preservation and conservation. The partnerships are also rendered through services donations by private companies that realize commercial shootings in the Park area. In 2002, the volume of resources received from private donations were in the order of R$71,000.00. Some of the partners and projects in development:

- **Residents Association and Neighborhood Association**
- **Support the protection of invasions in the Tijuca National Park surrounding areas**
- **AVLJR – Rio de Janeiro Free Flight Association**
- **Promotion of adventurous sports**
- **FEMERJ – Rio de Janeiro State Mountainism Federation**
- **Collective effort for the trail conservation and climbs realization**
  - Roberto Marinho Foundation – Sponsorship from Real Bank and Gerdau Group

Tijuca National Park strategic plan, Corcovado revitalization, Education by Nature and Volunteering program.

- **FUNBIO – National Fund for the Biodiversity Conservation**
- **Tijuca National Park participative management plan and Compensation Funds Progra**
- **HYPPOCAMPUS – Research and Environmental Preservation Institute**
- **Selective garbage collection**
  - ISER – Superior Institute for Religious Studies
- **Participative management plan, Tijuca National Park Visitors Profile Technical Assistance to the Visitor’s**
  - Terra Brazil Institute
- **Ecotourism program and Park’s ISO 14.001 Certification**
  - Terra Limpa Institute
- **Collective effort for the trails conservation**
  - Rio de Janeiro Botanical Garden
- **Tijuca National Park flora research**
  - Being conscientious

- **Park’s divulgation activities**
  - UFRJ – Rio de Janeiro State Federal University
  - **Geohidroecology, archeology and historical patrimony studies**
  - UERJ – Rio de Janeiro State University
- **Water quality monitoring**
  - Wildlife Conservation Society (WCS) and National Parks Conservation Association (NPCA)

Tijuca National Park Business Plan
Social Participation and Control

One of the bigger challenges for the implementation of the Nature Conservation Units National System (SNUC) recently instituted in Brazil is to incorporate the civilian society in the state actions planning and control process in the sphere of public management of the conservation units.

The new political practice presupposes the decentralization of these areas management and the institution of management counsels, previewed by the law 9985/00. The counsels must work as public spaces for the cooperation between the several instances of governmental power and the civilian society.

According to the legislation of the SNUS, the counsels may be of consultant or deliberative character, defined by the conservation unit protection degree. Which means, the integral protection Management categories like the parks, the biological reserves and ecological stations, for instance, would have consultant counsels; and the sustainable use categories like the extractive reserves and the sustainable development reserves, would have deliberative counsels.

The Tijuca National Park, therefore, is of consultant nature and is being implemented in a democrat way, through the technical and political capacitating of its members.

The SNUC regulation consecrated a social inclusion politic, establishing large participation and representation in the composition of the unit’s counsels. Their legal tasks include:

- “To accompany the elaboration, implementation and revision of the unit’s Management Plan, when it fits, guaranteeing its participative character”
- “To check the unit budget and yearly financial report elaborated by the executor organ concerning the units goals.”
- and “to manifest about the work or activity potentially causer of impact in the conservation unit, in its dumper zone, mosaics or biological corridors.”

Considering the counsels as legal and legitimate instances of participation and social control of the conservation unit's management, they must exercise the right to give opinion and/or decide over the execution of actions and application of financial resources, giving more translucence and effectiveness to the management process in these areas.

The pioneer and innovative character of this Business Plan launches the challenge of rendering the Tijuca National Park Management Counsel through an action very objective of monitoring of the proposal programs. The counsel will work as an external control organ for the Plan execution, through the systematic accompanying of its actions charging the accountability of the other organs involved in the Park management.

The positive external influences in this plan execution tend to become reference to the implantation of an integrated model to the Brazilian Conservation Units National System.
Volunteers

One of the directional axles of the Tijuca National Park Volunteering program is that, if one visitor acts with a conscientious conduct in the Park, in the practice, he is already a volunteer, independent of his registration or signature in the adhesion term, his action is already volunteer. The main goal is to contribute to the Tijuca National Park conservation, with emphasis in the improvement of the life quality of those residing on its surroundings and to the creation of conscience in the general population for the local Rain Forest environmental protection, besides bringing attention to its tourism and entertainment potential.

It is intended to follow the orientations for the volunteer work in the Environment Ministry Conservation Units that establishes the registration, interview, filling the adhesion term, orientation, training, supervision, appraisal and recognition of the volunteer.

The program combines a series of actions like unbundled volunteer work (oriented and trained by the Park), collective effort for cleaning and maintenance (eventual volunteer) and partnerships for trail adoption with non-governmental organizations and entities. All the volunteers and entities can participate, each one inside their possibilities, having the Park authorization and technical orientation for the development of activities according to the laws and regulation of the National Parks.

The Park has been systematically developing activities with the volunteers since February 2003, always counting with help and coordination of at least one Park technician. Between the activities that are being developed are: the **volunteer collective effort** with monthly periodicity, in which the volunteers exercise the garbage collection from natural environments, the maintenance of the trails and the creation of conscience in the visitors. **The Trail Maintenance** with weekly periodicity, in which the volunteers realize the monitoring and recovery of the trails through the opening of drains, closure of shortcuts, steps construction, and signalization plaques reposition. **The flora Management** with weekly periodicity, are exercised activities for flora Management and exotic species control. The Park’s **public attendance** has been happening in 3 distinct activities: the **environmental patrol** (on Saturdays and Sundays) in which a volunteer group walk around through the park in trails and public use areas realizing activities to create conscience in the visitors, monitoring and garbage collection, the **guide support** not only in the Ecoadventure programs but also in the schools guided visits and the **Visitor Support** taking the visitors until the start of the already signalized trails.

The volunteer service in National Parks is a tradition in countless countries in the world. In the United States, the National Park Services counts with a volunteer program that generates mutual benefits for the parks and the volunteers. In Chile, Australia and South Africa the volunteers are the mains responsible for the maintenance of the trails system and for realizing educational works with the visitors.

In the Brazilian context, in 2001 the Environment Ministry developed studies over the volunteer work in the conservation units and promoted an international seminar: ‘Brazil’s park volunteers: Conscience conduct Ethic and Citizenship’, In Rio de Janeiro. In this event were presented experiences with parks volunteers in the United States and Italy.

Several volunteer actions already occurred in the Tijuca National Park, the most frequent are the collective effort for cleaning and maintenance of the trails. In July 2002 was realized a workshop about volunteering planning at the Tijuca National Park, promoted by the Environment Ministry, with the production of planning for the program implementation, being the Tijuca National Park, a pilot area.

The volunteer work in the Tijuca National Park is a way of enhancing the Management and management of the Tijuca National Park in meaningful activities, generating benefits not only for the park but also for the volunteers, in an unique opportunity of interaction and reconciliation between the men and the nature.

*André Bittencourt Amador – Environmental Analyst – IBAMA*

Training the volunteers: working for love to the nature.
Recovery and Revitalization of the Corcovado

The process for the recovery and revitalization of the Corcovado started in January 1998 with the proposal for the elaboration of the Tijuca National Park Strategic Plan, presented by the Friends of the Park Consortium, in partnership with the private initiative and support of the Fédération des Parcs Naturals Régionaux de France. In 2000, the already concluded Strategic Plan, recommended a series of actions for the revitalization of the Corcovado/ Paineiras sector, among them the implementation of the mechanized system for the Christ the Redeemer.

The escalator idea isn’t new. It was presented for the first time around the 60’s, being discussed through the time by the federal, state and municipal spheres, and constantly reformulated. In 2001 the Roberto Marinho Foundation, in partnership with the IBAMA, the Rio de Janeiro City Government and private initiative through the Real Bank and Gerdal Group elaborated a definitive project that would start with the new lightning of the Christ the Redeemer and built in a way to harmonize the architectural, civil engineering and environmental preservation interventions.

In 2002, the mechanized system, involving the escalator and panoramic elevator installation was delivered to the Rio de Janeiro population and to the national and international tourists, becoming one of the biggest tourist attractions in Brazil. Since the new access inauguration, the Corcovado visitation increased around 20%, according demonstration by nongovernmental organization’s elaborated study.

In 2003, associated to the interventions held, the Roberto Marinho Foundation, in partnership with the Park’s co-managers and the Friends of the Tijuca National Park Society, has been developing the Education by Nature project.
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Photographs: Carlos Seckin, Rodrigo Tomé, Eduardo Lage and NGO Terra Brasil

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