Sustainable Urban Development of São Paulo: Challenges and Opportunities

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Secretary of Urban Development

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Macrometropolis Paulista

LEGEND

Official Metropolitan Regions
- São Paulo
- Campinas
- Santos

Urban Agglomerations
- Socoraba
- Jundiaí
- São José dos Campos

Radius = 100 km

• Area: 1,509 km²
• Urbanized Area: 1,000 km²
• Population: 11.3 mi (2010)
• Density: 73.0 inhab/ha
• Total GDP: US$ 195.29 bi
  (Source: IBGE/Seade 2009)
• GDP per capita: US$ 17,7 mil
  (Source: IBGE/Seade 2009)
• 31 administrative districts and 96 sub districts

It comprises:
✔ 17,260 km of public ways
✔ 74.3 km of subway + 125.0 km of railways
✔ 111.5 km of bus corridors
✔ 1,349 urban bus lines (fleet: 15 thousand vehicles)
• 19th City in gross production
• 3rd largest stock market of the world and 2nd of the Americas
• 54 of the 100 largest foreign companies
• The best City for Business in Latin America ahead of Miami, Santiago and Mexico City
  (America Economia Magazine - May/08)
• Leading Universities in Latin America

• 2,000 private companies with focus on R&D
• The greatest medical center in Latin America
• 70 different cultures living harmoniously
• Culture and Leisure Center
  (120 theatres, 280 cinemas, 88 museums)
• One event every 6 minutes
• Logistics Pole
  (port / airport / roads / railways)
Sustainable Urban Development
Sustainable Urban Development

- Challenges
- Opportunities
- Climate Change Policy
- Public policies in course
- SP 2040
Historical Evolution of the Urbanization
1930 to 1949

LEGEND

- São Paulo Metropolitan Region
- São Paulo City
- Built-up Area

Source: EMPLASA
Made by: SMDU/DIPRO
Historical Evolution of the Urbanization 1975 to 1985

LEGEND
- São Paulo Metropolitan Region
- São Paulo City
- Built-up Area

Source: EMPLASA
Made by: SMDU/DIPRO
Urban Development

Historical Evolution of the Urbanization
1993 to 2002

LEGEND

- São Paulo Metropolitan Region
- São Paulo City
- Built-up Area

Source: EMPLASA
Made by: SMDU/DIPRO
Urban Development - Challenges

• Population Growth and Urban Sprawl

• Peri-urban informal settlements on environmentally vulnerable areas

• Debt of infrastructure and services

• Consolidated downtown, but with declining residential usage in its core

• Daily pendular movements from the suburbs to downtown overload road and transport systems
Urban Development - Compact City

- Urban Intensification in areas with environmental and urban support capacity
- Implementation of sustainable centralities, promoting spatial integration
- Housing and mixed-use connected to economic centers
- Infrastructure improvement in potential areas high density settlements
Urban Operations
Concept

A mechanism used for areas that need urban structural transformations, social improvements and environmental upgrade

• **Use of private resources**: budgetary constraints and competing demands limit the allocation of public funds

• **Credibility and transparency**: CEPACs are auctioned at the stock exchange and supervised by the regulatory entity (CVM)

• **Participation of communities**: civil society in managerial committees

• **Sustainability**: requires an Environmental Impact Study

• **Continuity**: created by municipal law
An Urban Operation law comprises:

- its perimeter,
- its goals and guidelines
- the urban development master plan
- the list of infra-structure improvements

Urban Operations
Funding is obtained through the auctioning of Certificates (CEPACs) that can be converted into additional building rights.
Urban Operations being currently developed
URBAN OPERATION

água espraiada
GOALS

• Improve the transport system, emphasizing mass transport
• Provision of social housing for the population living in slums
• Provision of free spaces for public use with landscaping treatment
• Improving drainage of the area

Revenue € 596.1 Million

Area of coverage: 1,400 ha
Region in transformation process

Sector Brooklin - Avenue and Bridge

Specificities
First stage of intervention

Social housing construction

Investments: more than 800 units
Social housing construction: Jardim Edith

First stage of intervention

Investments: 240 units
First stage of intervention

Social housing construction: Jardim Edith

Investments: 240 units
First stage of intervention

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Investments: 240 units
First stage of intervention

Social housing construction: Jardim Edith

Investments: 240 units
First stage of intervention

Implementation of green areas and free public spaces - 50,000 m²
Extension of Journalist Roberto Marinho Avenue to Imigrantes Highway

Green way Project

New investments
Extension of Journalist Roberto Marinho Avenue to Imigrantes Highway

Green way Project

New investments
Extension of Journalist Roberto Marinho Avenue to Imigrantes Highway

Green way Project

New investments
Investments in mass transport system
URBAN OPERATION

faría lima
GOALS

• Improve the transport system, emphasizing mass transport
• Plan of interventions in the road system
• Provision of housing of social interest for the population living in slums
• Provision of free spaces for public use and green areas
• Occupation ways according to the characteristics and potential of each sector
• To conform centralities of high standard services in the southwestern region of the city

Revenue € 786.9 Million

Area of coverage: 450 ha
New Urban Operations
New Urban Operations

- LAPA-BRÁS
- MOOCA-VILA CARIOCA
- RIO VERDE-JACU
Urban Operation

Lapa – Brás

area: 2.146 ha
Sub perimeter Água Branca
Cross axes: environmental corridors and stream restoration
Urban Operation

Mooca-Vila Carioca

area: 1.592 ha
Induced Transformation: the City Hall intends to exert more power to induce the transformation process. The transformation occurs more rapidly, according to the specific guidelines.

Encouraged Transformation: the traditional mechanisms of urban operations can be applied on. Changes occur in the medium and long term according to general guidelines.
Sector 2: Ipiranga-Mooca
Urban Operation

Rio Verde-Jacu

Area: 11,374 ha
Density of Jobs
East Ring Road and Avenue Jacu-Pêssego

- Corredor Estado
- Rodoanel
  - Trecho Norte
  - Trecho Oeste
  - Trecho Sul
  - Trecho Leste

- Jacu-Pêssego
  - Trecho existente
  - Trecho entregue em 2010

Fonte: CET
Downtown Requalification
Anchor Projects: Downtown Requalification
Transform a degraded area into a lively mixed used neighborhood with more housing and employment and with high quality public spaces.
Master plan:

- Infrastructures
- Public spaces and green areas
- Areas for private real state development
- Developed by the public sector interacting with owners, investors and people which live and work in the area

Area to be transformed
Public bid

The company or the consortium of companies which becomes the concessionary:

- implements the master plan
- build the infrastructures
- can develop the private real estate projects in the designated areas
- has the right to expropriate to implement the master plan
Plots subjected to renovation
Proposed uses – ground floor
Proposed uses – upper floors
# Scenarios: Current and Future

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Future</th>
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<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENCIAL</td>
<td>11.679</td>
<td>20.657</td>
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<tr>
<td>NON RESIDENCIAL</td>
<td>23.374</td>
<td>42.758</td>
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<td><strong>TOTAL</strong></td>
<td><strong>1.216.056</strong></td>
<td><strong>2.011.022</strong></td>
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<tr>
<td><strong>Constructed Area [m²]</strong></td>
<td></td>
<td></td>
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<tr>
<td>RESIDENCIAL</td>
<td>535.735</td>
<td>879.745</td>
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<tr>
<td>NON RESIDENCIAL</td>
<td>682.231</td>
<td>1.131.277</td>
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<td><strong>TOTAL</strong></td>
<td><strong>1.216.056</strong></td>
<td><strong>2.011.022</strong></td>
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Climate Change Policies

- **Waste Disposal**: 3,696 Gg CO₂ eq (23%)
- **Others**: 59 Gg CO₂ eq (0%)
- **Energy Use**: 11,986 Gg CO₂ eq (77%)

Source: Municipal Emission Inventory, 2005
Bandeirantes and São João Landfills transformed in biogas power plants

- **Control of greenhouse gas emissions**
  Among the five largest world projects
  Approved by UN with Clean Development Mechanism - CDM

- **20% reduction of greenhouse gas emissions**
  (less 3.2 million ton of the CO$_2$ eq)

- **Generated power is sufficient for 600,000 people city**

- **Carbon Credits are used to improve landfills nearby areas**
Climate Change Policy

Approved in June 2009

• First climate change law in the country

• Created the Municipal Committee for Climate Change
  To support the implementation of the law. Society and government represented

• Policy Areas
  ✓ Transportation
  ✓ Energy
  ✓ Waste management
  ✓ Health
  ✓ Construction
  ✓ Land management
Promoting social equilibrium
Promoting environmental quality
Promoting urban development
Promoting mobility
São Paulo World City

Public policies in course
Promoting Environmental Quality
Clean City

• Air

• Preserving and Expanding Green Areas

• Water

• Landscape

• Eco-Economics
Preserving and Expanding Green Areas

- Implementation and expansion of “100 Municipal Parks”

<table>
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<tr>
<th>Qty</th>
<th>Status</th>
<th>Area (m²)</th>
<th>Part.</th>
<th>Acréscimo</th>
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<tr>
<td>33</td>
<td>EXISTING</td>
<td>15.561.363</td>
<td>31,8%</td>
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<tr>
<td>10</td>
<td>IMPLEMENTED</td>
<td>398.717</td>
<td>0,8%</td>
<td>3%</td>
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<tr>
<td>26</td>
<td>IN PROGRESS</td>
<td>2.654.188</td>
<td>5,4%</td>
<td>17%</td>
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<tr>
<td>31</td>
<td>PROJECT</td>
<td>30.268.548</td>
<td>61,9%</td>
<td>195%</td>
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<tr>
<td>100</td>
<td>TOTAL</td>
<td>48.882.816</td>
<td>100,0%</td>
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</table>

* Only municipal green areas

Clean City
Promoting Environmental Quality

Preserving and Expanding Green Areas

• Implementation of Linear Park

Before After

Parque Água Vermelha
Landscape

• Banishing Visual Pollution
Clean City Law: Transformation of the Landscape

Before

25 de Março Street.
Downtown

After
Clean City Law: Transformation of the Landscape
Promoting Social Equilibrium
Promoting Social Equilibrium

Priorization

Areas with superposition of problems
Promoting Social Equilibrium

- Slum Urbanization Programme
- Urban Land Regularization
- Economic Activity Regularization
- Child, Youth and Adult Schooling
- Health
- Safety
Interventions - 2005 to 2012

- 174,000 dwellings in precarious settlements being upgraded
- 21,300 new housing units
- 12,000 families receiving social rent
- 1,200 families in Social Partnership Aid
- 280 Tenement houses
- 1,200 letters of credit (cdhu)
- 53 buildings being expropriated in downtown area
Slum Urbanization Programme

Guidelines:

• Minimum number of resettlement
• Priority to the elimination of risk areas
• Construction of new social housing units
• Construction of water and sewage networks
• Improving precarious access
• Enhancing the quality and quantity of leisure facilities
• Partnerships with other Municipal Secretariats, State and Federal Government and plot-owners
Paraisópolis

- 3 communities: Paraisópolis, Jardim Colombo e Porto Seguro
- Area: 100 ha
- 60,000 inhabitants
- 2nd largest slum
- 3,168 new housing units
- 3 Phases of investments in progress € 237.8 Million
  - 58% municipal government  23% state government  19% federal government
  - 1st Phase = € 15.7 Million
  - 2nd Phase = € 140.0 Million
  - 3rd Phase = € 82.1 Million
Paraisópolis

Before

Before Paraisópolis Slum Urbanization Programme
Paraisópolis

After
Slum Urbanization Programme

Paraisópolis

After
Paraisópolis

After
Slum Urbanization Programme

Paraisópolis

After
Cantinho do Céu

- Project start date: 2008
- Project end date: 2010 (1st Phase)
- Geographic area: 200 hectares
- Benefited families: 9,800 families
- Landscape area: 30 hectares (park)
CANTINHO DO CÉU
CANTINHO DO CÉU
CANTINHO DO CÉU
Conceptual Schemes
Conceptual Schemes
Our City is already part of great world-wide circuits
Plan Structure

- Vision 2040
- Imbalances
- Axes
- Catalytic projects
- Financing, monitoring and assessment

the CITY we all want
• LIVE RIVERS
• URBAN PARKS
• COMMUNITIES
• 30 MINUTE CITY
• OPPORTUNITY NODES
• OPEN CITY
Every river in the city restored in 2040

A wide network of green corridors (linear parks) (green and blue network)
Clean River Program

before

José Lagrange

Primavera Park

Toronto Park

after
Canivete Linear Park
Canivete Linear Park
15 minute walk to reach a park

South and North Megaparks – protect and preserve strategic environmental areas
URBAN PARKS
Turn precarious settlements into communities and integrate them to the City.

Beyond the infrastructure:

- enhancement of social networks
- amenities
- local retail
- culture
- education
- health
- leisure
30 MINUTE CITY
COMMUTES MUST TAKE IN AVERAGE 30 MINUTES

Integrated expansion of the high and medium capacity transportation systems

Intensify the urban activities in areas with infrastructure

- mixed uses
- several income groups
- parks
- living with water
- walking and cycling
- leisure, culture and public services
OPPORTUNITY NODES
Structured and dynamic business and regional centers

- Itaquera Institutional and Tech Center
- EXPO SP
- Jaguaré Tech Park

Strengthening and integrating the main business districts

Regional centers leading a strategic decentralization of economic activities
São Paulo more conducive and receptive to the movement of ideas, information, knowledge and people

Modernize, integrate and expand airport infrastructure

Attract and host major events

Smart Infrastructure: universal access to broadband and integration of information systems and monitoring the city

Attractiveness to tourists, talents, R & D investments
Sustainable Urban Development of São Paulo: Challenges and Opportunities