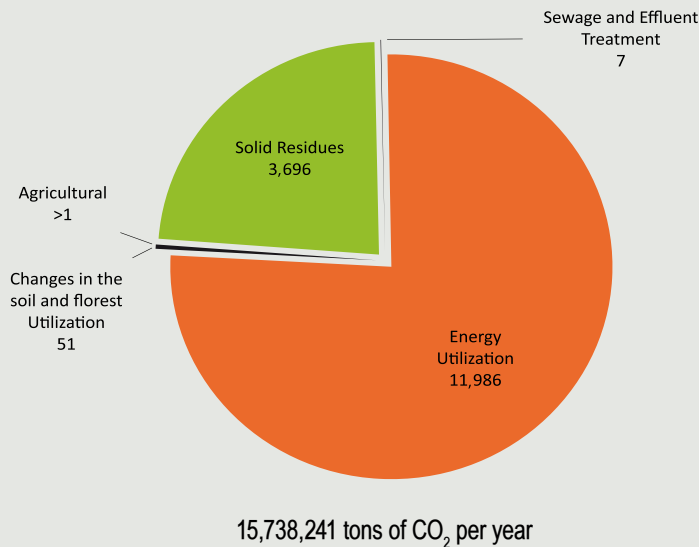


Global Warming A matter of life

Sao Paulo emission by source in 2003
(GgCO₂eq)

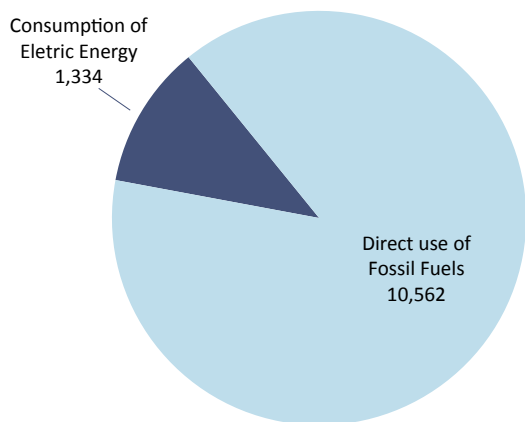


In January 2005, when the current administration took office for the first time, two important decisions were taken, which have designed our policies on climate change since then:

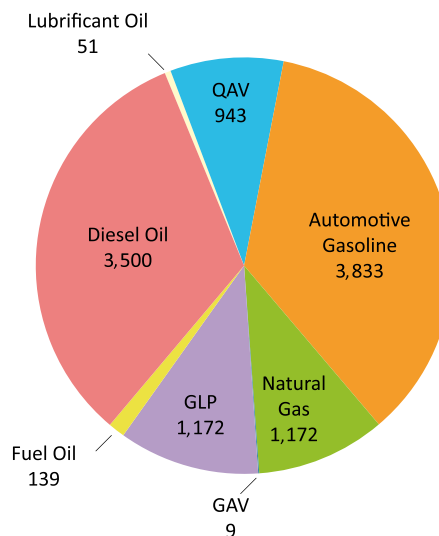
- » Recognizing climate change as the most serious economic/social/environmental challenge for the human being in the 21st century
- » Considering the changes in the way of living, socializing as well as in the production and consumption models as a cultural issue. Who wants to change the others, will have to act first in their own home.

In 2005, the Inventory of Green House Gases Emissions of the City of Sao Paulo was concluded. This is the crucial diagnosis that sustains action in a precise and conscious way.

Emissions Regarding the use of energy by the direct consumption of Fossil Fuels and Electric Energy in the Municipality of Sao Paulo (GgCO₂eq)



Sao Paulo emission by source in 2003 (GgCO₂eq)



Comparison between total emissions and emissions per inhabitant in Sao Paulo

	National Emissions (1994)	Emissions of Sao Paulo City (2003)	Emissions of Rio de Janeiro City (1998)
Population	157,290,000	10,710,997	5,633,407
Total Emissions (t CO₂eq)	1,289,406,000	15,738,241	12,798,000
Total Emissions Per inhabitants (t CO₂eq)	8.20	1.47	2.27
Emissions Generated by the energy Usign (t CO₂eq)	244,926,000	12,034,061	8,066,000
Emissions per inhabitants regarding the energy usign (t CO₂eq)	1.56	1.12	1.43

Note: This table is merely illustrative

Mitigation Efforts Reducing GHG Emissions



Waste Management

- » Methane collection in Bandeirantes and Sao Joao Municipal Landfills
- » Installing two power plants that transform methane in electric energy that supplies 700 thousand inhabitants in the city. The second power plant was installed in Sao Joao landfill in January 2008 and it is the largest of its kind in the world
- » Receiving Carbon Credits by the United Nations Framework Convention on Climate Change (UNFCCC). Two Public auctions, in 2007 and 2008, collected 70 million reais (26 million Euros), which have been invested mainly in social and environmental projects developed in the areas surrounding the landfills



Center for social-environmental capacity building: project financed by Carbon Credits

Examples of projects that are being developed

- » Implementation of Perus Linear Park
- » Implementation of Center for Capacity Building in Social-Environmental Area (asylum center for wild animals, vivarium and school for wood works)
- » Implementation of Squares
- » Urban, social and residential interventions
- » Installing of eco-points and rubble disposal withdrawal

Mogeroi Square



Linear Perus Park border



Urbanism

The Municipal Secretariat for Environment brings to Sao Paulo the concept of compact city. It is a program for redevelopment / revitalization, energy efficiency and culture of peace. It aims at recovering the city center, which is under inoccupation process, and its expansion through a rational and multi-classicist way. The project intends to avoid the city scattering to spring areas and environmental reserves, which have been occupied lately.



A biker journalist and cycle-activist, Felipe, has stopped using car a long time ago and today his main mean of transport is the bike. His attitudes for the environment include garbage recycling and participation in the "Bicicletada" movement, which encourages people not to use car and use more efficient means of transportation. He believes that people should choose other kinds of transport to move in the city and leave their cars at home. "We need to breathe in the city, if we don't start to think, everything will end. We should put our collective conscience into action."



Vehicle Inspection

This is the first municipal program in Brazil, which has begun in 2008. It was implemented progressively and will reach the whole fleet (6 million vehicles) in 2010.

The program reduces the pollution caused by gases that harms human health (representing about 1.5 year of loss in the population's life expectancy); and it is also a program for energy efficiency.

The regulated vehicles consume less fuel and therefore emit less GHG gases.

Following the example of Sao Paulo, the inspection will be extended to the rest of Brazil as a decision of the National Council for Environment.



Center for Vehicle Inspection at Barra Funda






Bike lane in Radial Leste



Transport

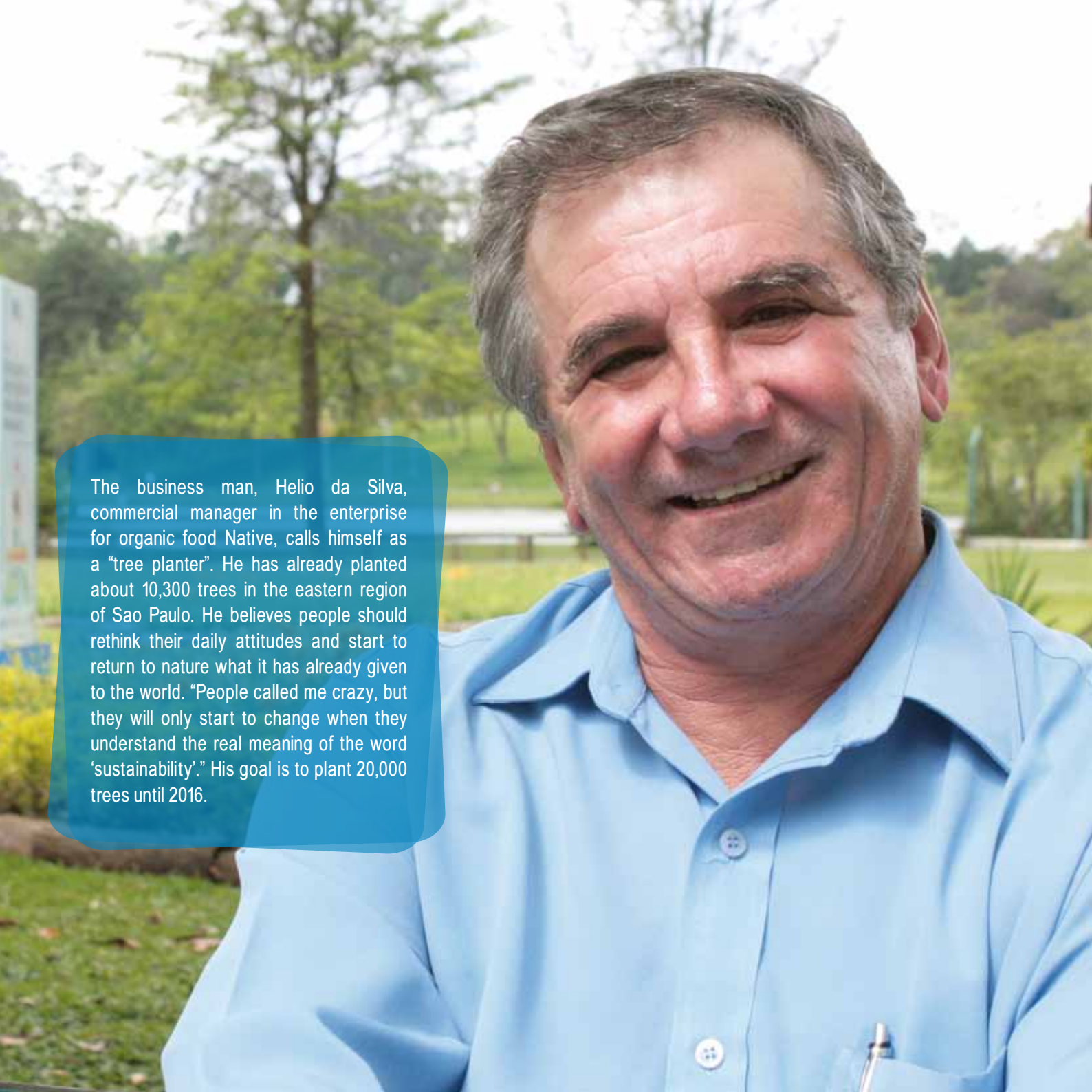
The goal is to increase the public transport in quantity and in quality. It is a program for energy efficiency in order to reduce oil consumption (GHG emissions source). It is a cooperative work with the government of the state of Sao Paulo:

- » Metro expansion and modernization of train service
- » Bus fleet renovation
- » Bus Corridor
- » Stimulating bicycle as a mean of transport.
- » Trolleybus (electric bus)
- » Accessible sidewalks

A close-up portrait of Ismael Caetano, a man with a beard and mustache, wearing a blue and white striped shirt. He is looking slightly to the right of the camera. The background is a blurred cityscape with many buildings under a clear blue sky.

Ismael Caetano, member of Institute Parada Vital, believes that the impacts of global warming will be huge. In his daily attitudes, he avoids the use of plastic bags and tries to consume less energy as possible. The Institute Parada Vital was created aiming to support clean means of transportation. In the city of Sao Paulo, it is responsible for the program Usebike, which provides bikes' parking lots in subway stations. It also develops a social project training youngsters who will work in those bike stops.

“The human being should find a less selfish way of consumption and share more.”



The business man, Helio da Silva, commercial manager in the enterprise for organic food Native, calls himself as a "tree planter". He has already planted about 10,300 trees in the eastern region of Sao Paulo. He believes people should rethink their daily attitudes and start to return to nature what it has already given to the world. "People called me crazy, but they will only start to change when they understand the real meaning of the word 'sustainability'." His goal is to plant 20,000 trees until 2016.

Afforestation

Project “Greener Sao Paulo”

In 2006, the Program for Municipal Afforestation was created in Sao Paulo. Between 2005 and 2009, more than 600,000 new trees were planted in the city. This means that nearly 40% of the carbon emissions, caused by the activities of public institutions in Sao Paulo, were neutralized.

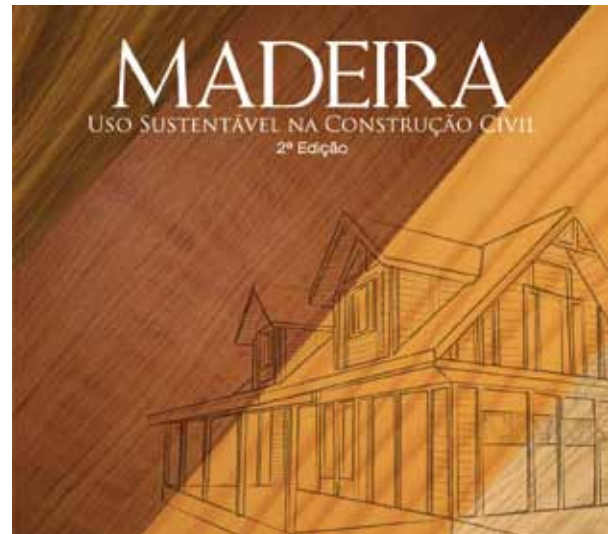


Planting team

Sustainable purchasing


The City Hall and the governments of the states of Sao Paulo and Minas Gerais, supported by the British Embassy and ICLEI (Local Governments for Sustainability), have initiated a program of systematic study for their purchasing, aiming at a more sustainable behavior.

The most striking result is the commitment to use legal wood in order to combat the Amazon's deforestation. It was initially signed in 2005 between Sao Paulo city and the NGO Greenpeace Brazil. It was later extended to the government of the state of Sao Paulo, more than 40 cities and many institutions such as WWF-Brasil, Sindicato da Construção Civil de Grandes Estruturas do Estado de São Paulo (Union of the civil construction of large structures in the state of Sao Paulo), Associação Brasileira dos Escritórios de Arquitetura (Brazilian Association of Architecture Bureaus), Conselho Brasileiro de Construção Sustentável (Brazilian Council of Sustainable Construction), Sindicato das Empresas de Compra, Venda, Locação e Administração de Imóveis Residenciais e Comerciais de São Paulo (Union for enterprises of purchase, sale, rent and management of residential properties in Sao Paulo) etc.



Solar Bill

The city of Sao Paulo was also the first city in the country to approve a law supporting the use of solar energy (Bill number 14,459; 3rd of July 2007). According to a forecasts made by Solar Cities, if a building with 20 floors, housing 80 apartments with 4 people living in each apartment, adopts the solar heating system to supply 40 % of its annual demand for hot water, it will avoid the emission of 10 tons of CO₂ per year.

A close-up, high-resolution portrait of a man with short dark hair and brown eyes. He is looking slightly to the right of the camera with a neutral expression. The lighting is soft, highlighting the texture of his skin and the details of his facial features.

Delcio Rodrigues is the chair of the Ekos Brasil Institute, which works with biodiversity conservation and sustainability promotion. Furthermore, he coordinates the initiative “Cidades Solares” (Solar Cities) by promoting public policies on solar energy. He says it is important to care about global warming, because climate change is the main threat to future generations. He tries to reduce the usage of packages and unnecessary purchases; in addition, he recycles everything in his house and office. He is rebuilding the electric system in his house, installing solar panels to reduce energy consumption and installing pressure reducers and aerators to decrease water consumption. “Sao Paulo should restrain the use of automobiles, which would reduce a great part of GHG emissions, not to mention the great improvement in people’s quality of life”.

100 parks

In 2005 the city of Sao Paulo had only 34 municipal parks (15 million square meters of protected area). The number was raised to 48 parks in 2008 (24 million square meters) and the goal is to achieve 100 parks by 2012 (50 million square meters).



Trote Park



Jacintho Alberto Park





Povo Park



Fogo Park



Aricanduva Linear Park



Cordeiro Park



Publicist and volunteer of Greenpeace Brazil, Karen takes care of her own garbage at home and she thinks everybody should do the same. More direct incentive campaigns can help changing people's point of view, who are used to the consumerism. "Educating and showing children how to make it, is easier. It's more complicated to show it to older people and try to change them."

Examples of how it is possible to act


Linear parks

The main threats to Sao Paulo are the extreme climate events, specially the urban floods.

The city currently has more than 20 linear parks under construction, aiming at combating floods, and recovering areas under environmental protection as well as promoting leisure activities for the population who live in the surrounding areas.



Água Vermelha Linear Park



Teacher Margarete supervises municipal teachers on environmental projects that are developed in schools, besides being part of Agenda 21. She affirms she is worried with environmental protection issues and believes that everybody should rethink their own actions and their impact on the survival of all species. She discusses in her class the principles of the Charter of the Earth: “The key point to raise people’s awareness is the education provided by schools, neighborhoods, associations, mainly driven to children.” Although she works far from home, Margarete uses public transport: “It is less comfortable, but I don’t regret. Today I know it is a small contribution, and that, facing the reality of the traffic in this city and the impact it causes on the environment, it is the best option.”

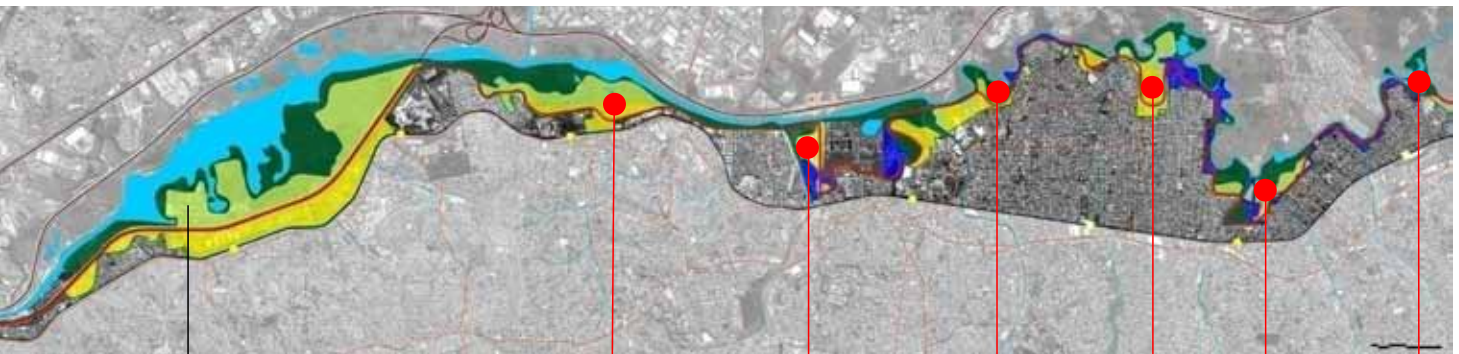
Varzea do Tiete Linear Park

It is the most important adaptation action to Climate Change in Sao Paulo. It aims at expanding green areas, increasing the soil absorbing capacity to prevent floods, installing proper sanitation, promoting residential programs to move the population living in high risk areas to safer neighborhoods and creating leisure, sports and cultural areas.

The park is being built with the support of the state government, as an environmental offset to the reconstruction of Marginal Tiete, an important highway along Tiete River.

Clean Stream

In cooperation with the state government, this project aims at cleaning streams and rivers in the city. 50 of those have already been cleaned and other 50 are in place.



Núcleo
Engenheiro Goulart

Núcleo
Ermelino

Núcleo
Vila Jacuí

Núcleo
3 meninas

Núcleo
Jardim
Helena

Núcleo
Itaim
Biacica

Núcleo
Jardim
Romano

Municipal Policy for Climate Change (Bill Number 14,933)

The Bill was approved unanimously in the Municipal House of Representatives, in 05th of July 2009 (the day for the Environment), after one year of discussion. It establishes as a goal the reduction of 30% in GHG emissions in the city until 2012. Although the objective seems to be ambitious, since 2005, Sao Paulo has reduced about 20% of its emissions as a result of the implementation of two biogas stations in Bandeirantes and Sao Joao landfills.

The law establishes:

- » Public transportation as a priority
- » Support to the use of means of transportation with lower emission of pollutants
- » Appropriate times for cargo storage and monitoring in the night period
- » Progressive reduction on the use of fossil fuels
- » Compulsory programs for recycling and waste collection
- » Establishing of standards for energy efficiency, environmental sustainability and efficient use of materials in the building sector
- » Adapted actions to combat flood
- » Compact city



A municipal committee was created in order to manage programs and actions that enable the accomplishment of the Policy for Climate Change in the city. Now regulated by the law, this group is a more recent and improved version from a previous committee established in 2006.

Public Sector (Represented by the corresponding secretaries)

Municipal Secretariat for Urban Development – Chair
Municipal Secretariat for Environment
Secretariat for Municipal Government
Municipal Secretariat for Finance
Municipal Secretariat for Urban Infrastructure and Work
Municipal Secretariat for Education
Municipal Secretariat for Transport
Municipal Secretariat for Housing
Municipal Secretariat for Health
Municipal Secretariat for Services
Municipal Secretariat for International Relations
Secretariat for Sanitation and Energy of the state of Sao Paulo

Organizations and Institutions (one representative per entity)

Local Governments for Sustainability (ICLEI)
Federation of Industries in the State of Sao Paulo (FIESP)
University of Sao Paulo (USP)
State University of Sao Paulo (UNESP)
National Association for Automobile Producers
Greenpeace
National Association of Public Transport
Union for Industry of Civil Construction in the state of Sao Paulo (Sinduscon)
Enterprise's Union for Purchase, Sale, Rent, Management and Administration of Residential and Commercial Properties in Sao Paulo (Secovi)
Central Force Union



Lucas Lima studies Environmental management and is concerned about Global Warming issues that could have terrible effects in the future. Hence, he is doing his part to decrease his ecological footprint, taking actions such as recycling the garbage and saving energy and water. "If people do not start to rethink their attitudes against nature, nothing is going to change."

United for Action

- » Local Governments for Sustainability (ICLEI) = Sao Paulo is part of the Executive Committee since 2006
- » Climate Leadership Group (C40 Cities) = Sao Paulo is an Executive member since 2008
- » National Association for Environmental Municipal Institutions of Brazil (ANAMMA) = Sao Paulo was nominated, in 2009, to coordinate the new ANAMMA Secretariat for Climate

Environmental Education

Charter of the Earth

Development of the program Charter of the Earth Diffusion in the municipal education network. Promoted in 800 schools.



Program Healthy and Green Environments

It aims at strengthening the relation between environmental, health and social development sectors, with a multidisciplinary focus on health and environment. About 5,000 health and social protection agents were trained and approximately 700 projects are under development along with the Municipal Secretariat for Health.

Regional Councils

Regional Councils for the Environment, Sustainable Development and Culture of Peace are being elected based on the 31 district administrations within the city. It facilitates the population's participation in debating and constructing municipal environmental policies.





Ivo Pons is a designer, college professor and head master of the NGO "Design Possível", which is a project for social development that counts on the participation of students, professionals, NGOs and enterprises. He has decreased the use of car in his routine and tries to do his activities without using the car, besides minimizing consumption through the usage of recycling materials. For him, global warming is a reality and a lot of people do not want to see it. "The government can have its own attitudes and support others, but the action itself belongs to everyone of us, it is individual. Global Warming is the reflex of what we do to ourselves. We don't worry about the planet and we don't think about our actions."

I am not made of plastic

It is a permanent campaign, launched in 2007, for the responsible use of plastic bags. It stimulated independent campaigns developed by supermarkets and stores aiming at offering their own options to disposable plastic bags. Other cities, motivated by the impacts of the campaign promoted by Sao Paulo, developed similar initiatives.



Meat-free Monday

The Municipal Secretariat for the Environment and the Brazilian Vegetarian Society launched, in October 2009, the campaign "Monday without meat", with the purpose of motivating people to not consume meat at least one day a week, bringing benefits to the planet and to their own health. The cattle farming is responsible for nearly 18% of total GHG emissions. Furthermore, the campaign aims at turning routine meals more diverse, as it invites people to "forget" meat at least one day a week, and try other kinds of food and recipes.





The Community Health Agent, Elisabete Diniz believes that if we do not start to think now about our attitudes, we are going to have terrible consequences in our future. In her job she looks forward to advising people to adopt a sustainable attitude everyday, such as collecting cooking oil and recycling the garbage. In her house the work keeps going with the water saving and domestic recycling. "We have to take care, because the nature is our future. If we do not start now, very soon we won't have the quality of life needed for our survival."

Mobilization for Climate

Two municipal meetings for Climate Change have been promoted, bringing information to a very diverse audience.


Focusing on transportation issues, the City Hall promoted the event “Challenges to Sustainable Transportation in the City of Sao Paulo”. It gathered representatives from the municipal government and the main car producers that work on alternative energy sources for automobiles.

The Municipal Conference for Health and Environment had the objective to achieve a more specific audience comprising agents and advisors in the health-care area. At this event, Climate Change issues were also debated.

The City Hall supports the climate agenda of several organizations, such as the campaigns “Tic-Tac”, “You are what you eat”, both developed by Greenpeace Brazil and others.

Other multidisciplinary activities will be held in the next few months, spreading information among the most diverse sectors. The accomplishment of 30% reduction of GHG in the city’s emissions depends mostly on change of habits. Those are practical examples that Sao Paulo is going to take to the Copenhagen Summit in December 2009.





The environmentalist Rebeca Larer, the current manager of Matilha Cultural, has already been Campaigner of Greenpeace Brazil and responsible for the project “Friendship City to Amazon”. She believes that, in Sao Paulo, the main issue is the huge amount of cars, which can be reduced if people get aware of: “We need a shock therapy, with measures such as the prohibition of cars in some places in the city. The pollution is connected to the general unhappiness of people who live in the city.” Matilha Cultural is located in the center of the city, helping as well in the process of revitalizing this area. Furthermore, in the reconstruction of its building only certificated wood and recycled materials were used. In her routine, Rebeca reuses old family furniture and practices bulk purchasing in order to avoid plastic packages.

Mahatma Gandhi used to say that we must be the change we want to see in the world. In order to talk to students, housewives, workers, functionaries, businessmen, farmers, other municipal governments and governments of other states, we need to get our part done.

Sao Paulo will act with the purpose to turn the Copenhagen Summit (COP-15) into a successful meeting regarding technical resolutions, policies and solidarity between nations, in order to enable the survival of our species and the others that coexist with us on Earth.





Isabela is only 10 years old, but she knows well what people are doing to the planet. She likes to read, she has a blog about cinema and she also loves the nature. Her favorite places are Aclimação Park and the Raul Bopp Library. She thinks people should not litter; they should, however, have conscience that nature is for everybody. Daily, she likes to go to the park in order to feel the free air and see the green, which is not very common in the city. "Sao Paulo needs to stimulate children into taking care of the environment. They are those who will preserve it from now on."

Sao Paulo City Hall
Mayor Gilberto Kassab

Municipal Secretariat for Environment
Secretary Eduardo Jorge Martins Alves Sobrinho

Special Advisor for Mr. Secretary's Cabinet
Hélio Neves

Deputy Secretary
Leda Aschermann

Advisor for the Cabinet and Executive Secretary of the Committee for
Climate Change and Eco-economy
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Hélio Neves

Department for Participation and Public Policies Stimulation
Helena Maria de Campos Magozo



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SÃO PAULO**

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Editorial Coordination
Monica C. Ribeiro

Artistic Coordination
Silvia Glueck

Graphic Project
Felipe do Vale

Art and Design
Fabio Augusto Lopes
Pedro Henrique Nunes da Cunha
Pedro Paulo Vieira Duarte
Silvia Costa Glueck

Production
Celia Giosa

Interviews and Testimonies
Mariana Andréa Belmont

Photos and Maps
Archives of the Secretariat
André Camili Dias
Pictures Databases
Carlos Hansen
Biogas' Courtesy
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DEPLAN

Fabio Augusto Lopes
Jefferson Pancieri
Marcos Kawall
Pedro Henrique Nunes da Cunha
Pedro Paulo Vieira Duarte
Renata Pinheiro Sales
Silvia Glueck

Pictures
Fabio Augusto Lopes
Pedro Henrique Nunes da Cunha
Victor Fihilie Barbeiro

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Pedro Henrique Nunes da Cunha
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Feel free to contact us:
mudancasclimaticas@prefeitura.sp.gov.br