

**POLICY  
BRIEF**

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# Political and Institutional Challenges facing Local Climate Change Policies: The experiences of Buenos Aires, Mexico City and São Paulo

## Executive Summary

During the last few years, Buenos Aires, São Paulo and Mexico DF, the three largest urban areas in Latin America, have taken steps in developing an institutional and policy framework to address climate change issues. Recently, in the Rio + 20 summit, the mayors from these three cities signed a joint declaration in which they stressed that the local governments should take an active role in addressing climate change issues and made a series of commitments to generate a common agenda.

Despite the relevance of these developments, climate change policies still face many political and institutional obstacles in these cities. This brief identifies four main challenges confronting reformist actors to advance climate change agendas at the local level, and proposes courses of actions to address these issues:

First, climate policy is still perceived mainly as a domain of the environmental agencies of government. Therefore, it is necessary to strengthen policy integration by involving other key areas of the local government in the climate change agenda, and especially to directly engage the mayor's office in this matter.

Second, climate change is still not a main issue in the local political agendas. This outlines the need for building broader constituencies for climate change-related policies at the city level.

Third, São Paulo, Mexico DF and Buenos Aires are the central cities of large and complex metropolitan regions. It is essential to develop and strengthen the metropolitan dimension in the climate change institutional and policy framework of the cities.

Finally, climate change policies place additional pressures on cities' budgets and raise the need for new sources of funding. This is an area of great potential cooperation between Mexico DF, Buenos Aires and São Paulo.

This policy brief is intended for local policymakers and climate change policy advocates. It will also be of interest to researchers on cities and climate change governance issues. The brief is based on an exploratory research of the existing climate change institutional framework of Mexico City, Buenos Aires and São Paulo as well as on the proceedings of the Buenos Aires Change Lab, a multi-stakeholder meeting with climate change experts and policy actors from the three cities, which took place in Buenos Aires in May, 2012.

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The governments of the three largest Latin American cities have already proceeded and made commitments to address climate change issues. Buenos Aires, São Paulo and Mexico DF have signed the Global Cities Covenant on Climate (the Mexico Pact) and passed climate change legislation and programs. Moreover, in June 2012, during the Rio +20 Summit, the mayors from the three cities signed a joint declaration (also known as the G3 declaration),<sup>1</sup> in which they stressed that local governments should take an active role in addressing climate change issues and made a series of commitments to generate a common environmental agenda among their cities. However, despite the relevance of these developments, climate change policies face many political and policy obstacles in the three cities. What are these main challenges? How can local climate change policies and agendas be strengthened?

## The Climate Change Institutional Framework in Buenos Aires, Mexico DF and São Paulo

Buenos Aires, São Paulo and Mexico DF are the central cities of the three largest urban areas in Latin America, with a combined population of approximately 55 million people. They are an increasingly prominent source of greenhouse gases in each of their countries and very vulnerable to the effects of climate change (box I). During the last few years, Buenos Aires, São Paulo and Mexico DF have developed specific legislation, programs and institutions to address climate change issues. This policy brief outlines the main components of the climate change institutional framework existing in each of the three cities.

**São Paulo** was a pioneer city in relation to the development of climate change policy in the region, representing one of the first large Latin American cities to pass a climate change law. In June 2009, the local legislature of São Paulo unanimously approved **law 14.933**. The law aims to reduce the city's greenhouse gas emissions by 30% by 2012, using the 2003 emissions level as a base line. To that end, the law establishes several measures focused on transportation, renewable energy, energy efficiency, waste management and land use.

The law also created the **Municipal Climate Change and Eco-economy Committee**, a collegiate and consultative body whose objective is to help with the implementation of the climate change law. The committee is formed by representatives of the state and local governments as well as representatives of environmental organizations, workers, academics, and businesses. In May 2011, the Committee approved the **Guidelines for the Action Plan of the City of São Paulo for Mitigation and Adaptation to Climate Change**, which identifies priority areas and proposes specific initiatives and actions.

It is estimated that at the end of 2011, Sao Paulo had reduced 20% of GHG emissions, mainly through the operation of biogas power plants installed in the Bandeirantes and São Joao landfills. The city government is currently preparing the new greenhouse inventory, which will allow to assess the complete evolution of the local GHG emissions and to monitor the effectiveness of the climate change measures implemented.<sup>2</sup>

In the case of **Mexico DF**, the **Climate Action Program 2008-2012** (PACCM in Spanish) is the primary building block of the city's current institutional and policy framework on climate change. The PACCM has two main goals; the first is to reduce seven million tons of CO<sub>2</sub> equivalents during the period of 2008-2012; the second is to develop an adaptation plan and to have it in full operation by 2012. The program proposes 26 specific GHG mitigation actions, 12 climate change adaptation actions and 6 specific actions regarding education and communication on climate change. Interestingly, the PACCM also specifies the amount of funding needed to carry out each of these actions. According to a recent assessment report issued by the government of Mexico DF, the PACCM has accomplished both of its 2012 mitigation and adaptation objectives.<sup>3</sup>

In June 2011, the legislature of Mexico City made a significant headway by passing the **Mitigation and Adaptation to Climate Change and Sustainable Development Law**. This law establishes various guidelines and measures aiming to develop and strengthen mitigation and adaptation policies for Mexico City. For instance, it creates an environmental fund for climate change as well as a local system of carbon emission certificates.

Finally, in 2009, the government of the city of **Buenos Aires** issued the **Buenos Aires 2030 Climate Change Action**

**Plan.** The plan sets a goal to reduce CO<sub>2</sub> equivalent emissions by 30% by 2030, using the 2008 levels as a base line. This action plan includes such mitigation strategies as energy efficient buildings and public structures, including LED street lights and stoplights, the introduction of hybrid buses, the expansion of bicycle lanes, and the extension of the subway system. The plan also includes adaptation strategies such as better water management and early flood warning systems. There is currently not a formal assessment available about the level of implementation of the Buenos Aires 2030 Climate Change Plan, although at the end of 2011, the government of the city of Buenos Aires issued a report describing the measures that had been taken within the framework on the plan.<sup>4</sup>

In September 2011, the local legislature of the city of Buenos Aires approved **law 3871 on Adaptation and Mitigation to Climate Change**. Among other issues, the law establishes that the climate change mitigation and adaptation plan has to be updated every five years.

This brief overview shows that all three cities have taken developmental steps in creating an institutional and policy framework to address climate change issues. A particularly relevant fact is that **the three cities have, now, specific laws on climate change** that were approved with broad political support by the local legislatures. However, despite these institutional developments, the climate change agenda in the three cities still faces many political and policy challenges.

## BOX I

### Background Information about Buenos Aires, Mexico DF and São Paulo

**Buenos Aires** is Argentina's largest city. It has a population of almost 3 million and its metropolitan area is home to 12.8 million people (about one-third of the total Argentine population). According to its 2003 - 2008 greenhouse inventory, Buenos Aires emits 15.6 million tons of CO<sub>2</sub> equivalents and its main sources of greenhouse gas (GHG) emissions are the energy (56%) and transport sectors (38%).<sup>5</sup> Giving its location on the shore of the Rio de la Plata and the Riachuelo, flooding is one of Buenos Aires's main concerns regarding the impacts of climate change. Moreover, flood risks are increasing due to more severe rainstorms, current urbanization patterns and expected rise of sea level.

**São Paulo** is Brazil's largest city with a population of 11.3 million. Its metropolitan area is home to 20.2 million people. According to its 2003 - 2005 greenhouse inventory, São Paulo emits 15.7 million tons of CO<sub>2</sub> equivalents. Its main sources of GHG emissions are energy use (76%), especially for transportation (the use of fossil fuels for transportation represents 70% of all energy's emissions), followed by solid waste disposition (23%).<sup>6</sup> Located on a hilly plateau, some of the most significant climate hazards affecting São Paulo are related to floods and landslides due to more frequent heavy rains. An estimated 900,000 households, many of them slum dwellers, are located on slopes and floodable areas that are likely to be the most affected by climate changes. Moreover, São Paulo's hilly geography, combined with the increasing number of cars in its roads (around six million vehicles a day), results in great mobility problems within the city. This problem is directly linked with concerns for São Paulo's high levels of transportation emission.<sup>7</sup>

**Mexico DF** has a population of 8.8 million and it is the largest metropolitan area in Latin America with a population of 21.3 million. According to its 2008 greenhouse inventory, Mexico City emits 51 million tons of CO<sub>2</sub> equivalents, which represents 6% of the total emissions of the country. The main sources of GHG emissions are transport (43%) and the industrial sectors (22%).<sup>8</sup> The city is located in a valley on a high plateau and surrounded by mountains. Given its geographical location, air pollution is one of Mexico city's main concerns. Climate changes are also increasing the frequency of severe rainstorms and the risk of flooding and landslides. Of the city's vulnerable population and dwellings, 40% lives in high risks zones (about one million people).<sup>9</sup> At the same time, changes in climate patterns are also increasing the frequency of droughts which results in water shortage and fires in the forests near the urban areas.

## Main Governance Challenges to Advance Climate Change Policies in Buenos Aires, Mexico DF and São Paulo

This section is largely based on the discussions and proceedings of the change lab that took place in Buenos Aires on May 2012 (see Box II). The productive debates and exchanges between the participants in this multi-stakeholder meeting have been a primary source for the issues discussed in this section.

### BOX II

#### Cooperation and Innovation for Climate Change: Dialogues between Buenos Aires, Mexico city and São Paulo

How to foster greater public involvement and support for climate change policies? How to promote sustainable transportation policies? These are just a few examples of the types of questions and issues addressed by the participants in the Change Lab “Towards a Common Agenda between Buenos Aires, Mexico city and São Paulo: Promoting Leadership and Climate Citizenship”, which took place in Buenos Aires, from May 16<sup>th</sup> to May 20<sup>th</sup> 2012(\*). Thirty five (35) experts on climate change issues from the government, business, academia and social sectors of the three cities participated in this meeting.

Essentially, a change lab is a multi-stakeholder process in which actors from various backgrounds engage in a learning and project creating process. As a result of almost five days of intense work, the Buenos Aires Change Lab’s participants developed a series of new project ideas, including proposals for:

- i) strengthening public-private sector articulation in relation to climate change issues,
- ii) developing new financial instruments to fund sustainable development projects in the metropolitan areas on these cities,
- iii) promoting educational programs and activities targeting families living in these urban areas,
- iv) developing a network of public and private actors to promote sustainable transportation in the three cities
- v) providing new training opportunities to local public officials and policymakers in relation to climate change adaptation issues.

(\*). This change lab was the result of the joint work of three organizations from Latin America: Fundación Ambiente y Recursos Naturales (FARN, from Argentina), the Associação Brasileira para o Desenvolvimento de Lideranças (ABDL – Lead Brazil) and the Instituto de Biología of the Universidad Nacional Autónoma de México (IB-UNAM), with the support of the Climate & Development Knowledge Network (CDKN).

## Policy Integration

The integration of climate change concerns and objectives with development and poverty alleviation strategies, urban planning and sectoral policies is a principal challenge for all three cities. Climate policy is still perceived mainly as an issue or domain of the environmental agencies of government. However, the policies and measures needed to achieve climate change objectives usually go beyond the institutional and political capabilities of the environmental departments, which clearly weaken the development and implementation of these policies. Therefore, a critical step to strengthen policy integration is **to involve other key areas of the local government (such as the finance and the planning departments) in the climate change agenda and especially, to directly engage the mayor’s office in this matter.**

All three cities have advanced in this direction. For instance, in June 2010, the government of Mexico city created the Interinstitutional Committee on Climate Change of the Federal District (*Comisión Interinstitucional de Cambio Climático del Distrito Federal—CICCDF*) which is formed by thirty six (36) different agencies of the local government and is directly chaired by the local mayor. From an institutional design standpoint, the CICCDF represents a very ambitious effort to involve the different areas of government in climate change policy. It is open to evaluation whether or not this institutional reform is effectively promoting the integration of climate change objectives in development and sectoral policies in Mexico DF.

## Political and social support

Despite the institutional developments mentioned above, climate change is still not a main concern in the local agendas, and political elites do not perceive it as a central issue in local politics. These initial climate change legislation and policies have usually been the result of initiatives promoted by individual politicians or government officials with the support of very specific networks of actors already deeply involved in the climate change agenda (such as specialized NGOs, scientists, international organizations -for instance, ICLEI-, etc). However, these “climate change coalitions” do not usually have the political leverage needed to deepen the climate agenda or even to support the effective implementation and enforcement of the existing policy commitments, which many times require local governments to make difficult and costly decisions.

In this context, **building broader constituencies for local climate change-related policies should be a main strategic objective for climate change activists and engaged policymakers.** A larger constituency will clearly strengthen the political leverage of reformist actors within the local governments aiming to advance the climate change agenda. In all three cities, there are many local associations and groups working on different and specific climate change-related issues (for instance, energy efficiency, urban mobility, etc.), as well as actors from the private sector already addressing climate change issues and engaged with low carbon economy strategies. A key step in building these constituencies, then, should be **to articulate and aggregate these fragmented social efforts and actors into a broader social demand for climate change policies.** Moreover, global climate change challenges **should be framed in local terms and linked when possible to issues and problems already on the local agenda.** This will clearly help the process of building stronger and broader local constituencies for climate-change related policies.<sup>10</sup>

## Metropolitan dimension

Policymakers and climate change policy advocates should not lose sight that São Paulo, Mexico DF, Buenos Aires, are only the central cities of very large and complex metropolitan regions. **This fact raises enormous governance challenges for climate change policy.** For instance, Buenos Aires’ metropolitan area encompasses the governments of the city of Buenos Aires, the province of Buenos Aires, the federal government and 30 municipal governments. By the same token, the metropolitan zone of Mexico encompasses the government of the Mexico DF (and its 16 boroughs), 59 municipal governments of the state of Mexico and 29 municipal governments of the state of Hidalgo. This means that several critical policy areas and issues for a climate change agenda, such as public transportation or water resources management, might be subject to multiple jurisdictions and levels of governments. Furthermore, while Buenos Aires, Mexico DF and São Paulo already have certain levels of institutional development and capability in relation to climate change issues, that might not be the case with other municipal or district governments that form their metropolitan areas. In fact, when compared with the central cities, many of these local governments have very low levels of state capacity to address climate change issues.

There are alternative ways to address the challenges of metropolitan climate governance, which vary significantly according to the specific institutional and political settings of each of the three cities and which cannot be discussed in detailed in this brief. However, beyond the particular features of each case, **policymakers in Buenos Aires, Mexico DF and Sao Paulo should bear in mind that –ultimately- the effectiveness of a climate change agenda for these cities largely depends on integrating their metropolitan dimensions.** This is a key policy aspect that needs to be emphasized given that the Joint Declaration signed by the three mayors during the Rio + 20 Summit does not mention this critical dimension of the environmental and climate agenda of these large Latin-American cities.

## Funding

Obviously, policies aiming to reduce GHG emissions and to adapt to climate change impacts place additional pressure on the cities' budgets and raise the need for additional resources. To some extent, all three cities have searched for new forms of financing urban climate change initiatives. São Paulo, for instance, has two of the five largest CDM approved programs in the world on greenhouse gas emission control through waste management: the Bandeirantes and São Joao landfills projects. Thermoelectric power plants were installed in both landfills to burn GHG produced by the decaying waste. By 2012, the two plants have prevented about 11 million tons of CO<sub>2</sub> eq. from entering the atmosphere, generating tradable CERS, part of which were sold by the government of the city of São Paulo at public auctions in the Brazilian Stock Exchange.

Beyond the individual efforts of each city to obtain new resources for climate change projects, **climate funding is an area of great potential cooperation between Mexico City, Buenos Aires and São Paulo.** In fact, this is one of the foremost issues addressed by the Joint Declaration signed by the three mayors in the Rio + 20 Summit. Specifically, the Declaration states that the three cities will explore funding mechanisms to expand environmentally sustainable projects, “*..., for example, a common fund to purchase, transfer or locally develop clean technologies...*”.<sup>11</sup> In a similar vein, the participants in the Buenos Aires Change Lab suggested the development of a financial mechanism among the three cities to fund sustainable development projects in their metropolitan areas (see Box II).



### Conclusions and Recommendations

- Broader political and social coalitions and constituencies should be built to support the development and implementation of local climate change policies
- Other key areas of the municipal government such as the planning and finance departments and especially the mayor's office, should be involved in the climate change agenda in order to strengthen the integration of climate change objectives with local development and sectoral policies
- It is essential to develop and strengthen the metropolitan dimension in the climate change institutional and policy framework of the three central cities.
- Climate funding, and more specifically the development of common funding mechanisms for climate change policies and projects, is an area of great potential cooperation between Mexico DF, Buenos Aires and São Paulo.

## NOTES



- <sup>1</sup> *Declaración Conjunta entre el Gobierno de la Ciudad de México, la Prefeitura de São Paulo y el Gobierno de la Ciudad Autónoma de Buenos Aires (2012).*
- <sup>2</sup> Fundacion Ekos (Brazil) <http://www.ekosbrasil.org/default.asp?idiomald=1&Paginald=2055> [Accessed September 27<sup>th</sup> 2012]. Fundacion Ekos is one of the institutions hired by the local government to produce the new greenhouse inventory for the city of Sao Paulo.
- <sup>3</sup> Secretaria de Medio Ambiente. Gobierno del Distrito Federal, (2012). *“Informe Final 2012. Programa de Acción Climática de la Ciudad de México 2008-2012”.*
- <sup>4</sup> Agencia de Protección Ambiental, Ministerio de Ambiente y Espacio Público (2011). *Buenos Aires frente al Cambio Climático.*
- <sup>5</sup> Agencia de Protección Ambiental, Ministerio de Ambiente y Espacio Público (2010). *Cambio Climático. Plan de Acción Buenos Aires 2030.*
- <sup>6</sup> Comitê Municipal de Mudança do Clima e Ecoeconomia e Grupos de Trabalho de Transporte, Energia, Construções, Uso do Solo, Resíduos e Saúd (2011). *“Guidelines for the Action Plan of the City of São Paulo for Mitigation and Adaptation to Climate Change”.*
- <sup>7</sup> World Bank, (2011). *“São Paulo Case Study. Climate Change, Disaster Risk, and the Urban Poor: Cities building resilience for a changing world”.* Available at: [http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1306291319853/CS\\_São\\_Paulo.pdf](http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1306291319853/CS_São_Paulo.pdf) [Last day accessed August 10, 2012].
- <sup>8</sup> Secretaria de Medio Ambiente. Gobierno del Distrito Federal, (2008). *“Programa de Acción Climática de la ciudad de México”.* 2<sup>nd</sup>. Ed.
- <sup>9</sup> Campillo, G., Dickson, E., Leon C., and Goicoechea, A., (2011). *“Urban Risk Assessment. Mexico City”.* World Bank. Available at: [http://www.preventionweb.net/files/20179\\_csmexicocity1.pdf](http://www.preventionweb.net/files/20179_csmexicocity1.pdf) [Last day accessed August 10, 2012].
- <sup>10</sup> Betsill, M. and Berkeley, H. (2007). *Looking Back and Thinking Ahead: A Decade of Cities and Climate Change Research.* Local Environment. Vol. 12, No. 5, 447-456.
- <sup>11</sup> Own translation from Spanish.



### About FARN:

Fundacion Ambiente y Recursos Naturales (FARN) was created in 1985. It is a non-governmental and non-partisan organization whose principal objective is to promote sustainable development through policy, law and the participation of society. FARN is based in Buenos Aires, Argentina.

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