



Based on interviews with experts from Quito and Mexico City regarding their experiences with city level climate change planning, practitioners from Africa, Latin America and Asia discussed local realities, and considered means of enhancing urban climate plans and policies.

CITY LEVEL CLIMATE CHANGE PLANS AND POLICIES

SUMMARY

The ELLA Learning Alliance on Climate Resilient Cities was a four-month online learning exchange involving participants from Latin America, Africa and South Asia who are policymakers, practitioners and researchers working to confront climate related challenges in their respective cities. Each week the ELLA Moderator, Charlotte Heffer, and guest experts offered thematic posts in the online learning space, exemplifying Latin American experiences of making cities more climate resilient, with a significant focus on mechanisms and actions that reduce vulnerability. Best practices and methodologies from Latin America cities were shared with participants in the form of case studies, scholarly articles, interviews with relevant experts and videos. Based on a set of guiding questions, participants were in turn invited to share experiences from their respective cities in the face of similar climate related challenges.





In the first discussion of the online learning programme, two Latin American experts, Carolina Zambrano Barragán of Quito and Martha Delgado of Mexico City joined us, to discuss the development and implementation of innovative climate change policy and planning strategies in their cities. These two cities are considered leaders in the region, with climate considerations having been integrated into all levels of city planning. Learning Alliance participants from Africa, Asia and Latin America discussed how climate change planning and policy practices might be enhanced in their own cities. Participants noted that the plans and policies in Quito and Mexico City are more advanced than in their cities, due to reasons ranging from weak local governance to the fact that climate change is sometimes considered a rural issue. Participants agreed that central government support is essential in the development of effective city level climate change policy and planning.

Key Conclusions

Online discussions pointed to the following key conclusions related to city level climate change policy and planning in African, Asian and Latin American nations:

- Climate change policy and planning are typically developed and implemented at the national, rather than at the city level. City actions are generally reactive following extreme climate-induced events
- National climate change policies and planning often do not correspond with distinct city level needs, and as such city level plans are necessary
- Institutional and financial government support for cities to develop bespoke plans would likely heighten the chances of developing meaningful city plans to tackle climate challenges
- Development and implementation of climate change strategies require effective governance at the city level
- Technical and financial collaboration from the private sector is key to implementing climate change policy and planning, particularly in cities with sparse resources

CONTENT

Discussion - City Level Climate Change Plans and Policies

[Page 3](#)

Interview with Carolina Zambrano-Barragán from the City of Quito, Ecuador

[Page 7](#)

Interview with Martha Delgado, Mexico City, Mexico

[Page 11](#)



Discussion: City Level Climate Change Plans and Policies

Learning Focus

Discussion 1 of the Learning Alliance on Climate Resilient Cities focused on the theme of centralised city-level climate change plans and policies. As exemplified by case studies from Mexico City, Mexico and Quito, Ecuador, Latin American cities are increasingly developing comprehensive city-level climate change strategies that are supported by policies and led by central governmental institutions.

The purpose of this discussion was to identify if the development of comprehensive city-level climate strategies is a trend in cities throughout the global south, and whether existing planning and policy efforts are indeed helping to enhance urban climate resilience. Participants were encouraged to analyse the distinct challenges that limit climate change planning and policy actions in their respective cities, and the role of the government.

Discussion 1 was guided by the following three questions:

1. Does your city have a government-mandated climate change strategy? If yes, how was it developed (who was involved) and how successful has it been in achieving its objectives? If no, what do you perceive to be the barriers for developing one?
2. To what extent do city governments invest in improving climate resilience in your country/region?
3. Can cities become resilient to climate change without centralised support?

Latin American Case Studies

For this discussion, two pioneering Latin American city level climate change plans were highlighted for the benefit of Learning Alliance participants. These were Mexico City's Climate Action Programme implemented in 2008, and Quito's Climate Change Strategy and Action Plan, developed in 2009, both of which utilised a holistic and inclusive approach to planning and policy initiatives.

In order to provide direct insight into these case studies, interviews were carried out with two key actors involved in the development and implementation of these plans: Carolina Zambrano-Barragán, former Metropolitan Director of Environmental Policy and Planning in the City of Quito and who previously served as Undersecretary of Climate Change in Ecuador's Ministry of Environment; and Martha Delgado, Minister of Environment for Mexico City during the administration of Mayor Marcelo Ebrard (2006-2012). Both interviews are included at the end of this document.

Discussion Participation

Sixteen countries were represented in this discussion, with contributions from more than 40 participants. South Asia and Sub-Saharan Africa were the most represented regions.



Summary

Concrete city level climate change planning and policy efforts were found to be rare in African and Asian cities. As such, a significant focus of the discussion was on the inexistence of national level climate change planning and policy actions and the implications of this for cities.

“Most of the initiatives on climate change plans and policies are presently at the national level. Some consultants are currently working on a Climate Change Response Strategy for Zimbabwe... We are hoping that once the national strategy is in place there may be opportunities for local cities to craft their climate change strategies which feed into this national process...”

*- Collen Mutasa, Zimbabwe
Civil Society Actor*

Analysis of participant contributions showed that national climate change plans, policies and strategies either exist or are currently in development in Bangladesh, Bolivia, Ghana, India, Nepal, Nigeria, Rwanda South Africa, Trinidad & Tobago, Turkey, Zambia and Zimbabwe.

Participants from Zimbabwe, Bangladesh, Ghana, India and Zambia indicated several reasons why city level planning is non-existent within their respective cities, including: greater prioritisation among local governments toward other city level development issues; the inexistence of national climate change policy and planning to supplement efforts at the local level; an overall lack of stable governance at the local level; a lack of technical capacity; and the perception that climate change is purely an agricultural or rural concern, rather than an urban one.

“I live and work in Sunyani [Ghana]... As far as I know, the city does not have a Climate Change Strategy, though there are obvious impacts of climate change such as flooding, soil erosion, forest degradation... The reason [that strategies have not been implemented] could be that Ghana introduced a Climate Change policy in 2010 and followed with an adaptation strategy and plan in 2012. This required local governments and cities to mainstream CC issues in planning. The policy has to be communicated. It could also be due to [the lack of] human capacities at local levels to do such plans. Finally, coordination at the national level has been weak.”

*- Samuel Adobe, Ghana
Government Official*

Aside from the two cities featured in the discussion materials – Mexico City and Quito – participants also indicated other cities with specific climate change plans, along with other cities with uncoordinated programmes to improve climate resilience. Cited examples included:

- Bangladesh – the cities of Khulna and Dhaka have a series of initiatives to improve climate resilience, but no central city plan



- Bolivia – La Paz has a plan for climate change, which focuses on early response to hazards
- Ghana – the city of Accra has a plan to deal with flooding, and participants mentioned that byelaws are being passed in cities to improve climate resilience
- India – Surat, Indore and Gorakhpur have specific climate change plans, and Visakhapatnam city is currently developing a plan. Delhi has no specific plan, but is apparently very well-organised and increasingly green
- Vietnam – Ho Chi Minh City has a Climate Change Action Plan 2015-2025

"... We don't have any city level climate change strategy [in Dhaka City] but our national strategy which was formulated in 2008 (Bangladesh Climate Change Strategy and Action Plan-BCCSAP) has urban level components in various sectors like drainage, energy, water supply, waste management etc. But, since the urban bodies do not have complete authority like the city government, they could not prepare such a plan."

*- Rafiul Islam, Bangladesh
Civil Society*

Several participants noted that climate change considerations often take place in their respective cities as a knee-jerk response to the occurrence of extreme climatic events.

Most participants felt that cities would improve urban climate resilience if national governments gave political, economic and technical support – but many felt that power should be handed over to the city authorities. In terms of the role of local governments, on the whole, participants felt that the chances of developing meaningful climate change plans to reduce vulnerability and improve resiliency, would be higher with the involvement of a dedicated city level administration.

"Cities cannot become resilient to climate change without centralised support. In Bangladesh although the local government planning and development authorities are playing an important role in the national budget allocation, but they have very limited power to approve large scale projects [at the local level]. Moreover, there should be linkages in the flow of investment for climate change from central to local government for ensuring accountability and consistency with the national level goals and strategies."

*- Md Abdul Awal Sarker, Bangladesh
Government Official*

Three further interesting topics of discussion among participants for this week pertained to the necessity of a multi-stakeholder approach to climate change planning and policy efforts, the existence of political leadership and commitment to climate change at the local level, as well as the need for public and private sector partnerships in order to ensure financing for climate change policy and planning actions.



“Most municipal departments and the business sector have been quite disinterested in the [the climate change strategy] process. In our context, there is a limited appreciation of the need to work in an integrated and multi-faceted manner within municipalities, and the business sector responds primarily to issues that affect their businesses today and most seem not to have grasped the growing impact of climate change now and measures that can mitigate and adapt to these impacts. At a political level no champion has emerged... to provide ongoing support to make sure the process remains a high priority.”

*- Riaz Jogiati, South Africa
Government Official*

Key Lessons

- Most cities in Africa, Asia and Latin America are yet to develop comprehensive city level climate change action plans and policies. Reasons for this include: weak governance at the local level, lack of understanding and technical capacity, and the perception that climate change is a rural issue
- Urban climate change actions across the regions tend to be reactive following extreme events, or with a focus on disaster risk reduction
- National Climate Change Plans are inadequate for addressing local needs, but in some cases may be a necessary first step – leading the way for local authorities to follow. However, in some cases, such as Quito, we have seen that city plans can be extremely successful even without national plans
- The development and implementation of climate change strategies require effective governance at the city level. The involvement of the private sector can be key to the implementation of climate change policy and planning, providing both financial and technical support
- Central support would likely improve the impact of city level climate action plans and policies

Supplementary Materials

Participants were provided with the following resources in preparation for this discussion:

- [MIT Article on Quito and Climate Change Plans in the Global South](#)
- [Mexico City's Climate Action Program Summary: 2008-2012](#)
- [Mexico City Meets, Exceeds Climate Action Program Goals](#)
- [Progress and Challenges in Urban Climate Adaptation Planning: Results of a Global Survey](#)
- [Quito's Climate Change Strategy: Policies for Planned Adaptation and Reducing Vulnerability](#)
- [Quito's Climate Change Strategy: Plans and Actions to Adapt in the Water Supply and Sanitation Sector](#)



Interview with **Carolina Zambrano-Barragán** from the City of Quito, Ecuador

By Emily Trainor



Carolina Zambrano-Barragán is the National Representative for Avina Foundation in Ecuador and a Professor at the Andean University's Simon Bolivar Graduate Programme on Climate Change. Since 2010, Ms. Zambrano-Barragán has been a member of the Scientific Steering Committee of the Programme of Research on Vulnerability, Impacts and Adaptation (PROVIA), lead by the UNEP. Prior to joining Avina, Carolina was the Metropolitan Director of Environmental Policy and Planning for the City of Quito and previously served as Undersecretary of Climate Change at the Ministry of Environment of Ecuador

What led Quito to address climate change at the city level?

In the beginning, the main interest of the administration was to address climate change solely in terms of its impact on drinking water supply. Most of Quito's water comes from highland ecosystems in the Andean mountains that are being affected by climate change, resulting in challenges in the provision of water, one of the basic services that the city government is responsible for. However, soon after they began work on water provisions, the city authorities began to see a relationship with the challenges they were experiencing in other sectors. Also, the Mayor of Quito was attending meetings held by international associations such as [ICLEI](#) [Local Governments for Sustainability] where his administration learned how pressing an issue climate change had become with local authorities around the world. Therefore, it was political momentum that helped move the climate change agenda forward in Quito, with the climate change strategy adopted in 2009. Although slight changes associated with climate-related interests have arisen since the transition from that administration, continuity between the two in terms of climate change interests has helped strengthen the climate change institutional framework and planning strategies that are currently in place. It is interesting to note that Quito's climate change strategy was developed in 2009, and the national strategy was later developed in 2012. Ecuador was the first city to develop a local strategy.

What are the physical challenges to addressing climate change challenges in the city of Quito?

Geographically, Quito is extremely diverse. As a district, Quito varies from 500 to 4800 meters above sea level. What is more, we have 17 different ecosystems varying from tropical forests, to highlands, to glaciers. In terms of physical challenges in the city, Quito must work specifically to address the issue of urban informal settlements. Most informal settlements are located in slopes surrounding the valley of Quito, making their residents highly vulnerable to landslides and flooding.



What are the institutional challenges to putting climate change plans and policies into action in Quito?

One of the greatest challenges for Quito is making people aware of what climate change actually is and to help them understand that it needs to be addressed now. Often climate change is seen as a technically complex and intangible issue, but it needs to be translated into common language showing its effect on every day issues.

There is also a need for an inter-institutional approach to climate change. Many times climate change related issues are led by the environment ministry. There is a need to engage the interest of other departments, for them to perceive their need to be involved so that they can begin taking ownership of climate change policy and planning.

Another challenge is the lack of financial and human resources within the local climate change sector. Historically, only one local government official was involved in climate change, with little available funding. There is a strong need to find resources to hire people who are trained in climate change management since Quito lacks the relevant expertise.

Political instability has been a further challenge for Quito. For example, there have been five different environmental secretaries in Quito since the arrival of the new administration, and each new secretary has different interests and priorities related to climate change.

How did you overcome/address these physical and institutional challenges?

Initially we identified all existing projects within the city administration and identified the relationship between these projects and climate change. Presentations were given to municipal officials about the reality of climate change in Quito, which was followed by a discussion with them about how their initiatives could contribute to addressing climate challenges. For example, the transportation department's metro construction is contributing to climate change mitigation; therefore, it became involved in Quito's climate change strategy.

We looked at existing climate change related initiatives, considering what was important to stakeholders and brought this all together into one city level climate change plan. The city government also created a climate change panel for Quito. Climate change is one of the few issues that can be linked to many different sectors and departments. Many research institutions began to work with the government, rather than all research being carried out in-house.

We addressed physical challenges by adopting a territorial approach. Priorities are identified in a specific geographical sector with consideration of local vulnerabilities and needs, such as social, cultural and environmental challenges.



What are the strengths of Quito's plans and policies to address climate change?

The greatest strength of Quito's plans and policies to address climate change is the holistic approach that is used. Quito prioritises projects that have multiple benefits in terms of adaptation, mitigation, social and environmental development, as well as conservation. There is also a great focus on citizenship involvement and co-responsibility.

Quito's Climate Change Action Plan is comprised of three main axes of action. They are:

1. Information and Knowledge Management, with a focus on all the basic information needed to inform policies and actions related to climate change (including inventories and vulnerability assessments)
2. Adaptation and Mitigation in Strategic Sectors, which involves different projects and actions looking at climate change as a whole and not separating adaptation from mitigation (including risk management systems and urban agriculture)
3. Citizenship Involvement and Participation, which works to engage people as agents of change. This is one of the main strengths of the Quito Climate Change Action plan. For example, the National Youth Convention on Climate Change brings young people together for discussions that ultimately help inform climate change policy and community actions.

A major strength is that our plans and policies are dynamic and Quito is learning by doing, recognising that there are many uncertainties related to climate change. Moreover, Quito understands that new information is coming out all the time regarding the effectiveness of our climate change related solutions, therefore we need to be able to adapt to this within our institutional approaches.

A further strength in Quito is that climate change has provided the city government with the opportunity to innovate, particularly in the way that people and institutions relate to each other. For example, the city government now has a different way of relating to scientific community through its Climate Change Panel. In addition, the Inter-Institutional Climate Change Committee has helped the municipality learn to interact with diverse government departments.

There has also been involvement with the private sector locally through the creation of a voluntary metropolitan emission compensation system. Therefore, Quito has found new ways to engage and build trust through innovative and diverse processes. In the face of political instability, it is important to find ways to institutionalise actions related to climate change and have people believe in and take ownership of these actions.



Which actors were the most instrumental in putting these plans and policies into action? Why?

Elected members of the city council were very important since they demonstrated strong will to transform Quito into a leader among local authorities in Ecuador in terms of climate change management. Young environmental leaders were also extremely important: a platform was created for them to each share experiences, ideas and opinions on climate change needs specific to Quito. This youth group even created a climate change action plan of their own, including policy recommendations, which were given to different stakeholders with the city government. Youth are critical, they are usually the greatest change makers in their families and communities because they are more open to this new concept of climate change.

At a national level, Quito's environmental secretariat played an instrumental role in the development of the national climate change strategy given its prior experience with creating an institutional framework for climate change. Other secretariats of the city government, as well as the scientific community in Quito were also crucial in influencing decision making with the information and support they provided.

What process did you follow to secure funding for the initiative?

Some international development donors provided resources for Quito's Climate Change Action Plan. However, this support was for very technical, 100% climate related actions that often lack local government funding. The Climate and Development Knowledge Network ([CDKN](#)) was the largest international contributor in terms of its support for Quito's vulnerability assessment work. The [World Bank](#) assisted in the integration of climate change criteria into Quito's natural resource management and the Inter-American Development Bank ([IDB](#)) provided funding support to the National Appropriate Mitigation Action on Transportation.

Funding for the adaptation and mitigation plans comes from the City Government of Quito because these plans relate to existing actions within different municipal departments and secretariats. The municipality of Quito has invested approximately \$180 million dollars in climate related actions to date.



Interview with Martha Delgado, Mexico City, Mexico

By Carla Shah Laroche



Martha Delgado was Minister of Environment of Mexico City during the administration of Mayor Marcelo Ebrard (2006-2012), when they developed ambitious environmental policies like the Green Plan of Mexico City, the Climate Action Programme, the bike sharing system ECOBICI, and the recovery of the Magdalena River, the last living river in the city, among others.

Currently, she works at Fundación PENSAR as General Director of the Secretariat of the Global Cities Covenant on Climate, a local leaders initiative that brings together 286 mayors from around the world to combat global warming.

Are climate change issues being addressed at the national level? If so how?

In Mexico, we have a National Law for Climate Change. In 2011, the federal government launched the Climate Change Programme that includes actions of different ministries. A couple of days ago the new President installed the Inter-secretarial Commission on Climate Change.

Why is it important to target climate change at the city level?

The rationale for that lies in the fact that while climate change does not affect all the world's regions equally, its impact will create adverse conditions for civilizing elements as they exist today. As such, the action of cities at the local level becomes strategic for climate change mitigation and adaptation at the national level and beyond. Furthermore, cities are responsible for important measures and policies that provide distinct opportunities for reducing emissions, such as transportation systems, landfills, water management and street lighting. Cities can also innovate by regulating and providing economic incentives for energy efficiency, for example. Cities start at the local level but their climate activism can have positive international implications.

What were the challenges for Mexico City in terms of climate change and how did you overcome them?

Mexico City is one of the largest cities in the world. It has 9 million residents, with an additional 5 million people travelling into the city during the day. Sustainability is an aspiration, we have suffered environmental crises in the past relating to air quality, floods and waste, amongst others. These crises have helped raise awareness amongst citizens about the importance of taking care



of the environment. The city needs more efficient transportation systems to reduce emissions and improve air quality. From 2008 to 2012 Mayor Ebrard’s administration created a number of very diverse strategies through the Climate Action Plan that helped reduce 7.7 million tonnes CO2/eq.

What were the geographical challenges?

Mexico City is located in a closed river basin and rainfall patterns have been changing a lot; sometimes we lack water and then afterwards there is months of flooding. The city is also very expansive, so we have to reduce the time of transportation of millions of people to reduce emissions.

What were the political challenges?

Mexico City’s government changed last December. The administration of Mayor Ebrard was truly committed with the climate agenda, gaining international recognition and extraordinary performance. In my opinion, the current administration’s challenge is to maintain this agenda.

What difference did the support of the local government make?

The battle against global warming will either be won or lost in cities. At the end of the day, the activities that contribute to emissions take place at the local level. In terms of adaptation, you can’t adapt the whole country, you must adapt communities. The solution therefore, of any public policy, regulation, measure, or investment, is to work with the engagement of the city.

Which actors were the most instrumental and why?

Mayors. Mayors that have a vision and inspire their communities. They can tailor regulations and generate incentives, allocate money to climate measures and spread enthusiasm for the economic and ecological relevance of this cause.

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To learn more about the Learning Alliance on Climate Resilient Cities, or any of the specific themes raised in the Learning Alliance Highlights, contact the author and Learning Alliance moderator, Charlotte Olivia Heffer, ELLA Brazil Project Coordinator at the Environmental Laboratory at the Federal University of Rio de Janeiro (UFRJ), at charlotte@lima.coppe.ufrj.br.

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