

Towards promoting urban governance to make climate resilient intermediate cities in Latin America

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Abstract

Cities are the main source of greenhouse gas emissions but are also vulnerable to climate change. The UN-HABITAT III conference highlighted the potential role that intermediate cities could play to implement energy efficiency measures, encourage the development of renewable energy, and contribute to the minimisation of climate risks. Based on a literature review, this study presents sustainable initiatives in intermediate cities of Latin America. The review suggests that good urban climate governance should promote the interaction between different levels of government, with close participation of civil society organisations, NGOs and international cooperation.

Keywords: *Urban governance, Intermediate cities, Latin America*

Introduction

Latin America and the Caribbean (LAC) has experienced the highest urban growth worldwide since 1950: in approximately 100 years, the population grew from 60 million inhabitants to more than 600 million today, and of those, it is estimated that almost 80% lives in cities (CDKN, 2017a). Contrary to the last century, when large settlements determined urbanisation patterns, in the last 20 years the trend has been characterised by a network of smaller emerging – or ‘intermediate’ - cities, with less than one million inhabitants. This dynamic has contributed to reducing the high poverty indices in the LAC region, but it continues to be a challenge to achieve a balance between supply and demand of natural resources (ECLAC & IAI, 2013).

Although urban centers cover only 2% of the planet's surface, around 70% of greenhouse gases are produced there (UN-Habitat, 2011): urban expansion leads to displacement from rural areas, the generation of complex pollution problems, an increase in waste production and the rise in natural and anthropogenic risks, such as climate change (Ruiz et al., 2017). Thus, there is a need to reconcile the adaptation and mitigation dimensions of climate change with respect to cities (Solecki, et al., 2015).

The UN-HABITAT III conference has contributed in motivating academics and international organisations to turn intermediate cities into strategic territories for urban sustainable development, in order to correct past planning mistakes of large-scale urban settlements. Since

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intermediate cities of LAC are still in the process of including climate change considerations in their regulations and technical instruments (ECLAC & IAI, 2013) there is a potential to integrate new environmental issues in their planning and in domestic policies such as energy efficiency measures, encourage the development of renewable energy or to contribute to the minimisation of climate risks (CDKN, 2017b). Despite the importance of intermediate cities, local governments are still facing difficulties in managing urban growth and attracting public and private investment to wards tackling social and environmental problems.

Methodology

The present study discusses the nexus between urban settlements and the fight against climate change. In this context, the aim of this study is to conduct a synthesis of best practices and urban management models that guide local public policies for effective urban climate governance in intermediate cities of LAC; in addition it also encourages the continued implementation of international agreements such as the New Urban Agenda, as well as the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change.

Within the framework of the project "*Cities and Climate Change: Innovation and Leadership for the Construction of Transformational Resilience in the Cities of LAC*", funded by the Canadian International Development Research Centre, this study was undertaken through a literature review of academic publications, peer-reviewed publications, web pages and blogs of international organisations, such as the Climate and Development Alliance, Inter-American Development Bank, Cities Alliance, Climate Leadership Group Cities C40, UN-HABITAT and the World Bank. Based on 10 case studies in Latin America and the Caribbean, the selected initiatives were classified into three categories ("soft", "intermediate" and "hard") that include both mitigation and adaptation measures in urban spaces. Furthermore, the following four criteria were also used in the categorisation: availability of financial means, time-frame, cooperation between stakeholders groups and types of products that they promote. The main reason to present an alternative categorisation is to not separate *a priori* selected action into adaptation and mitigation, since often this action can represent both strategies: for example, a technical instrument or local standards could cover strategies of mitigation and adaptation or implementing actions for flood risk management could be carried out through planting trees on slopes (see **Figure 1**).

In this context, soft measures usually have a time-frame of up to four years and require lower financial resource investment; they include products such as studies, public policies, adaptation or mitigation plans and institutional norms empowering local governments. Intermediate measures have execution times of more than five years and investments could be higher; here adaptation measures could promote a sustainable management of water and soil resources and new forms of crops within food security policies. Finally, hard measures focus on improving green infrastructure, sustainable transport systems or building renovation requiring higher costs and more time for implementation.

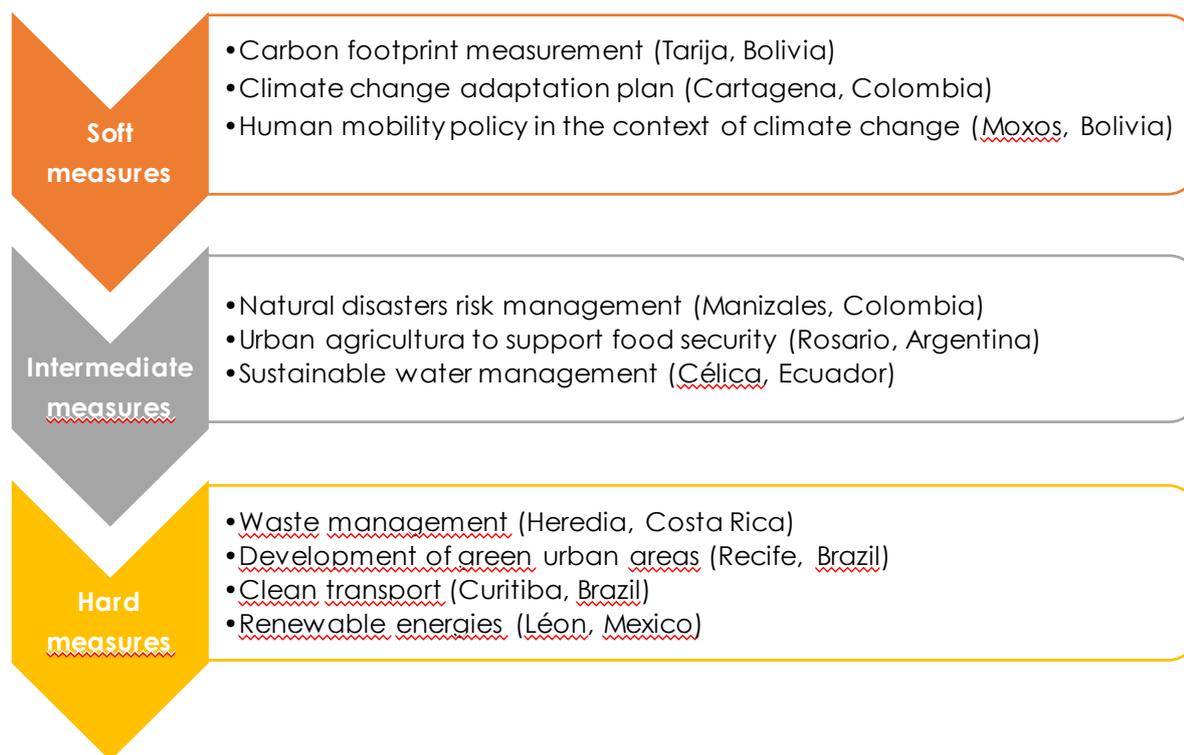


Figure 1: Best practice and urban management models in 10 selected intermediate cities in LAC (Source: Authors own)

Results

The main protagonist for implementing soft measures are urban governments who often receive technical or financial support from NGOs or international cooperation to elaborate such instruments. On the other hand, civil society plays a crucial role implementing intermediate initiatives, since they receive the benefits of ecosystem services or contribute to increase social resilience in disaster risk situations. Finally, initiatives concerning green infrastructure or waste management cannot be carried out without the private sector because of high investment costs. Due to the complexity of the topics and the high transaction costs for implementing actions, none of the initiatives has been solely executed by local authorities.

In implementing different initiatives, a number of involved parties with specific roles and responsibilities are needed to support these measures. Non-governmental organisations (NGOs) and many bilateral international cooperation organisations have a preponderant role as "promoters" in many of the initiatives: in the case of the implementation of soft measures, they usually act as drivers of new ideas, so it is also usual that they finance or provide technical support. For implementing intermediate measures, they also play an important role in promoting dialogues, and enabling meetings and workshops for the participatory construction of processes. Furthermore, the role of academic bodies is indispensable for the generation of information supporting public decision-making, but can also assume the role of trainers with courses aimed at both the technical units responsible for municipalities and the civilian population. Private companies play a crucial role in investment, mainly in guaranteeing investments for waste management (Heredia, Costa Rica),

setting up green urban areas (Recife, Brazil) or promoting clean transport (Curitiba, Brazil). The private sector's inclusion represents a potential which, at the moment, is underutilised both by promoters and by decision-makers. This group must not only be composed of large private companies, as the case of intermediate measures showed; civil society actors can form economic groups that support the processes. Civil society also plays the role of "beneficiary" or "recipient" mainly of intermediate measures, benefiting from ecosystem services that avoid the contamination of water and air, or that increase resilience to disaster risk (Ruiz, 2018).

Conclusion

From the available information it is not possible to conclude if the origin and implementation of all initiatives were planned as adaptation measures. Rather, local authorities still tend to favor the implementation of measures that meet social and economic needs. So, effective urban climate management could be the result of positive externalities of transport management or municipal solid waste management, or they may be the result of coincidences, rather than deliberate actions of policy makers.

Either way, effective climate change management is the result of the interaction between different levels of government, with close participation of civil society organisations, NGOs and international cooperation. In this context, it is important to rethink the prevailing perception of the roles of local authorities and other stakeholders, recognising their interdependence and the need for cooperation. The sustainability and successes of all initiatives depended on the interaction and cooperation between all parties.

New initiatives should be supported by local governments in leading and promoting the implementation of best practices; urban authorities can also assume commitments to facilitate dialogues and cooperation with other stakeholders, as well as making available financial and technical means for promoting actions. Although the selected studies reveal the interest of local authorities, not all governments have the same resources (human, financial) to support initiatives. The progress in elaborating policies and actions is closely related to the experience or interest of local authorities, for example, local governments that are promoting short-term measures generally have less experience in climate management. Likewise, it is possible that governments that work with hard mitigation measures or intermediate risk management are those that have more experience in the development of internal strategies and policies, presenting the best advances in the establishment of climate management.

Due to missing examples that link both adaptation and mitigation strategies, good urban climate governance demands more empirical studies that do not apply mitigation or adaptation measures separately. Moreover, a comprehensive perspective of local policy action is required to put co-benefits for the urban population, such as for example public health or well-being, at the forefront.

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References

- Climate and Development Knowledge Network(CDKN) (2017a): *Acción local con impacto global 8 ciudades latinoamericanas avanzan hacia un desarrollo compatible con el clima*. Available: https://cdkn.org/wp-content/uploads/2017/07/DT_Huellas-12-07-2017-FINAL.pdf
- Climate and Development Knowledge Network (CDKN) (2017b): *Ciudades implementando un Desarrollo Compatible con el Clima en América Latina*. Available: https://cdkn.org/wp-content/uploads/2017/07/DT_ciudades_-DCC.pdf
- Economic Commission for Latin America (ECLAC) Inter-American Institute for Global Change Research (IAI)(2013): *Respuestas urbanas al cambio climático en América Latina*. Santiago de Chile (Chile). Available: repositorio.cepal.org/bitstream/11362/36622/1/S2013813_es.pdf
- Ruiz, S. 2018 (forthcoming): “Construyendo gobernanza climática urbana en ciudades intermedias de América Latina y el Caribe”;CITE/FLACSO - IDRC.
- Ruiz, S., Morales, J., & Lasso, R. (2017): “Retos legislativos hacia la construcción de las ciudades sostenibles en contexto de cambio climático. En: *Legislamos para el mañana*”. La Asamblea Nacional y la agenda de desarrollo mundial post 2015. Available: <http://www.uasb.edu.ec/documents/10181/1499701/PAPER+SPONDYLUS+156.pdf/e819c763-ddcc-4f1b-8cd3-28fbf9f933dd>
- Solecki, W. et al., (2015): A conceptual framework for an urban areas typology to integrate climate change mitigation and adaptation. *Urban Climate* 14 (2015) 116-137. Elsevier
- UN-Habitat (2011): *Cities and climate change: global report on human settlements*, United Nations Human Settlements Programme.<https://unhabitat.org/books/cities-and-climate-change-global-report-on-human-settlements-2011/>

