FUNDACIÓN AMBIENTE Y RECURSOS NATURALES

Shaping local climate policies: A review of experience

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Summary

This short literature review provides initial reflections on conditions shaping climate policy at the city level in developing countries. The key message is that a city needs the following in order to effectively advance climate compatible development:

Local government capacity

Legal competence – devolved powers and legal competence in key sectors like waste, transport and energy; coherent authority across the whole city system, including hinterland and peri-urban areas, or good horizontal integration with other jurisdictions that impact on climate compatible development in the city itself.

Human resources – capacity across local government, not just scattered individuals.

Funding – access to funding and resources, usually supplemented from outside the city budget. Although some measures are cheap or economic, like energy efficiency, others like urban infrastructure are highly dependent on funding.

Technical expertise and information – access to, and the skill to make use of, local data and evidence. This is particularly challenging for adaptation where there may be uncertainty about social dimensions and longer-term impacts at the local level.

Problem framing

Commitment and engagement – a broader set of political and social leaders, actors and stakeholders supporting implementation of climate compatible development on the ground.

A strong case for action – which should be framed in the context of broader social and economic objectives and the concerns of the local community. The case is often well made on mitigation, but there is more to be done on adaptation where the longer-term agenda can have limited traction locally.

Political factors and actors

Local leader – a 'political entrepreneur' or champion who takes a leadership role at the local level to promote climate compatible development, as well as broader institutional capacity. It is not yet clear what role politicisation has in climate compatible development, although this preliminary research suggests that relevant legislation tends to be passed with broad cross-party support.

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History of local activism – formal or, in the case of many developing cities, part of the informal economy. Activists are important in their own right to build momentum for change and balance vested interests that might lose from climate compatible development.

Connection to networks of best practice – the ability to replicate ideas and showcase the city more widely, through networks such as ICLEI – Local Governments for Sustainability. This is often key to building momentum for change locally.

Finally, it is important to avoid long lists of 'necessary conditions' for the development of local climate policy, and recognise that success factors in one scenario are themselves a reflection of the presence or absence of other factors. We should draw on lessons learned, but also recognise that each context will be different.

Introduction

Increasingly, local governments are adopting policy, programmes and measures to address climate change issues. However, progress varies significantly across cities (or even between different policy fields within one city). Climate policy researchers and activists stress that, in many cases, there is a persistent gap between policy discourse centred on the relevance of local action on climate change and political reality.[2]

The purpose of this paper is precisely to address this issue by analysing those factors and conditions that shape local climate policies in developing countries. Based on a review of the literature on climate change and urban policy, as well as on the preliminary findings of our research project supported by the Climate and Development Knowledge Network (CDKN) on climate politics in Buenos Aires, Argentina; Mexico City, Mexico; and the Municipality of São Paulo, Brazil, we identify three sets of conditions as critical for explaining the development of local climate policy: government capacity, problem framing and political factors.

Our analysis focuses on the implementation rather than the adoption of local climate policy. As argued by Sharp and other researchers,[3] adopting climate programmes or passing local climate legislation tends to be relatively uncontroversial politically, especially when this only implies broad programmatic commitments or aspirational goals. In contrast, policy implementation requires concrete government action likely to trigger opposition and demands that the government divert time and money elsewhere. It is in this stage of the policy process where the gap mentioned above between what is said and what is done on climate policy becomes more obvious and profound.

It is worth making two clarifications about our 'units of analysis'. First, the paper focuses on public climate policies – i.e. authoritative decisions and measures taken by governments. Initiatives and projects developed by business and civil society are outside the scope of this paper. Second, the analysis here focuses on policies under the jurisdiction of city governments; provincial, state and other local governments are not included.

Factors and conditions shaping local climate policy

Local government capacity

There is a large body of literature stressing the importance of many different local governments' capabilities for explaining the development of local climate policies. Within this literature, we can broadly distinguish between analyses that concentrate on the legal capabilities of local governments and those focusing on their financial and organisational resources (technical, human, etc.). In relation to the former, many studies have found that the extent of local government powers in key policy sectors such as energy, waste, transport and planning are critical for the development of climate change initiatives.[4,5]

For instance, Bai described the city of Rizhao in China, where the local government strongly promoted solar energy including the mandatory solar water-heaters for all new buildings within the city's jurisdiction.[6] After 15 years of local policies promoting solar energy, virtually all households in central districts of the city use solar water-heaters. As this example suggests, local governments with a mandate to regulate waste disposal, transport and energy can advance climate change policies in a way that other local authorities may not be able to.[7]

However, in many cases, climate change urban issues require public policies that go beyond the legal powers of local government. Bulkeley calls this the problem of 'fit' – i.e. the mismatch between the scale of the urban issues that need to be addressed and local government authority.[8] This problem is further exacerbated in the case of large metropolitan areas, such as Buenos Aires and Mexico City, where several critical policy areas and issues for the urban climate change agenda – public transport, land planning and water resources – are subject to multiple jurisdictions and levels of government.[9] In this context, the ability of municipal governments to develop

climate initiatives in certain policy areas depends on the existing local governance arrangements in each case.

As mentioned earlier, there are many studies stressing that the effectiveness of local climate policies mainly depends on local governments' organisational resources and funding. Holgate's comparative study of local climate policy in Cape Town and Johannesburg, South Africa is a good example.[10] It shows that the different administrative capacities of the two cities had a significant impact on the effectiveness of local programmes to reduce greenhouse gas (GHG) emissions. While Johannesburg had only one official overseeing climate change policies and environmental programmes, the Cape Town authority was well-staffed and had additional funding, allowing it to successfully implement emissions-reduction policies.

Similarly, the capacity of local government to generate and manage data is a key factor for shaping the local climate agenda, especially in relation to adaptation. Bulkeley and other scholars[11] argue that the lack of data and expertise at the local level is a more critical obstacle to policy development when it comes to adaptation than mitigation. The lack of scientific information on the potential impacts of climate change on specific urban areas, as well as of social vulnerability assessments, greatly affects the capability of local government to design and implement effective adaptation measures.

Based on this overview of the literature on government capacity, we can make two main comments about the causal relevance of these factors to climate policy development. First, government capacity factors can be considered as necessary enabling conditions for climate policy implementation to occur. In cases in which any of the factors (legal competence, human and technical resources, or funding) are lacking to any significant degree, local government is likely to be unable to implement these policies. However, this does not mean that these factors have equal causal weight in all cases. On the contrary, the relative importance of each factor is likely to vary according to the type and scale of the policy under analysis and the specific characteristics of the government involved. For instance, access to additional sources of funding is key for local governments to develop urban infrastructure for adaptation; however, this is less true for programmes encouraging the use of bicycles to reduce GHG emissions.

Second, while government capacity factors can be considered as necessary enabling conditions for implementation to occur, they cannot explain what motivates local political actors and stakeholders to support or oppose it. One should remember that even when government capacity exists, the implementation of a policy can be blocked or delayed. In other words, these government capacity factors affect the opportunity to advance climate policies at the local level, but they do not account for the interests and preferences of actors involved in the policy process. To answer this, the following two sections develop a more agency-centred analysis, which focuses on the role of local political and social actors and on factors shaping their interests in relation to local climate change policy.

Problem framing

Many authors argue that pursuing climate objectives depends on whether they fit the social and economic concerns of communities and local governments.[12,13,14,15] These claims rest on the hypothesis that local governments and communities are more likely to develop climate-friendly policies if they can be framed in relation to local problems and generate other socioeconomic or environmental benefits.

There are many studies backing this claim in relation to climate mitigation. For example, based on interviews with government officials from 23 ICLEI member cities in the United States, Kousky and Schneider found that the most frequently expressed motivation for developing climate change measures was the potential for cost savings for energy improvements.[16] Puppim de Oliveira's comparative study of policies leading to GHG emissions reductions in cities in China, India and Indonesia demonstrated that the main drivers were not related to climate change.[17] For instance, the main objectives of the New Delhi metro, which was one of the first Clean Development Mechanism projects in the transportation sector in India, was to provide public transport in the city to reduce congestion and alleviate air pollution. Similarly, the government of Shenyang, one of the biggest industrial cities in China, relocated the old industrial district of Tiexi and upgraded several industrial plants to make them cleaner and more efficient. The policy has several objectives, one of which was to reduce carbon emissions, but the main driver was the reduction of air pollution.[18]

Although research on local framing and co-benefits has mostly been done in relation to mitigation policies, some authors suggest that the effective advance of local climate adaptation initiatives also depends on how they are linked to local concerns and interests.[19,20,21] For instance, Bulkeley and others argue that climate adaptation is still a marginal issue in the agendas of many local governments in the developing world. They say this

is partly due to the lack of local framing, i.e. the lack of linking climate adaptation to other pressing urban social, economic and environmental problems, with the result that the adaptation agenda has limited traction or support locally.[22]

Political factors and actors

This approach focuses on how political factors and actors affect the development of climate policy at the local level. Within the literature, we can distinguish two main lines of research. First, several studies focus on the opportunities for political leadership in promoting local climate change policies, and they stress the role of the 'political entrepreneur' or champion.[23,24] Generally, these are senior local government officials, elected or appointed, who take on a leadership role in promoting the climate change agenda or specific initiatives at the local level. Different motives can lead local politicians or appointed government officials to do this. In some cases these may be ideological; in others they may be a way to advance their careers.

Other studies point out the importance of participation in international municipal networks such as ICLEI (and here in particular their GreenClimateCities programme) or the Climate Alliance, which enable local governments to enhance their reputation or access technical assistance. Martins and Ferreira's study (2011), for instance, demonstrated how the participation in transnational municipal networks was crucial for developing climate change policies in the Brazilian cities of São Paulo and Rio de Janeiro.

However, research also points out the limitations of political entrepreneurs in advancing the climate agenda. Bulkeley and other scholars argue that policy entrepreneurs can only "take climate change action so far," and that in order to overcome administrative and political obstacles, broader institutional capacity is necessary.[25] Similarly, our preliminary research on the cities of Buenos Aires, Mexico and São Paulo also indicates that political champions play a key role in the adoption of the initial climate change legislation and plans. However, uneven levels of implementation of these programmes raises questions about the conditions under which political entrepreneurs can contribute to the advance of climate initiatives – especially their implementation, which often requires local governments to take politically difficult and costly measures.

Another set of studies focuses on the influence of interest groups to explain the development of climate policy. Most of these empirical studies refer to United States and European urban areas. The key hypothesis here is that the prevalence of organised interests will influence the uptake of sustainability policies, including climate change policies.[26] Therefore, in cities where there is a higher level of environmental community activism, it is more likely that there will be stronger climate policies.

Research usually assesses the strength of these 'pro-climate action' interests through the number of local residents belonging to organised environmental groups, or surveying how often local residents contact or lobby their local government over environmental issues.[27] But it can be argued that this type of research is not always adequate to assess the level of social demand for climate change action in cities of the developing world. It assumes a highly institutionalised environmental movement, embodied in professional non-governmental organisations and formal associations, which is not the case in many developing countries. Furthermore, it tends to focus on politically green constituencies, which are likely to support mitigation policies. However, climate change in urban areas might generate other types of social and political constituencies supporting adaptation policies that go beyond traditional environmental groups and networks. This is particularly relevant for cities in developing countries, where the urban poor tend to be the most exposed to the impacts of climate change.[28] This raises a series of interesting questions for climate policy advocates about how to approach these potential new constituencies and build new political coalitions for climate action.

Studies focusing on how social actors affect the local climate agenda also include the identification and analysis of those organised interests likely to oppose climate policies. Local economic sectors dependent on carbon-intensive activities and industries are obviously expected to oppose policies for reducing emissions because they raise costs and affect competitiveness.[29] Similarly, our preliminary research on Buenos Aires and Mexico City suggests that urban developers (and some homeowners) can oppose climate adaptation measures involving land planning regulation because it affects land values.

On the other hand, there are business actors who may support local climate action, either to take advantage of a new market or to save money.[30] For example, our research in Buenos Aires found that bicycle manufacturers and retailers strongly supported government policies promoting the use of bikes in the city while, interestingly, associations of taxi owners and employees (a powerful constituency in city politics) systematically tried to block

them. As this example suggests, social and political coalitions supporting and opposing climate-friendly initiatives can be formed with groups and actors coming from very different quarters. This creates the need for further empirical research on the politics of local climate change and how different social and economic actors and sectors affect, and are affected by, local government policies.

Finally, as a last observation in this section, it is worth noting the lack of research on the role of political parties in the development of urban climate policy. This might just indicate low levels of politicisation of climate issues at the local level – meaning climate is not high on voters' agendas nor is it subject to competition between political parties.[31] This is not a minor matter: the degree of politicisation may be a significant barometer of the social importance of issues.[32]

Our preliminary research on Buenos Aires, Mexico City and São Paulo seems to confirm this initial assessment about the low level of politicisation of climate issues at the local level, although it is interesting to note that the legislatures of all three cities approved climate change laws with the support of governing coalitions and opposition parties.[33] Exploring the reasons for this phenomenon of low politicisation of climate change and the consequent impact on the development of local climate policy goes beyond the scope of this brief paper. Nevertheless, these are critical questions for understanding the dynamics of democratic local politics and climate change issues.

Final comment

As a final comment, we want to outline the need for a more 'configurational' approach to the study of local climate policy. There is a tendency in the literature to fall into the 'everything matters' trap when analysing policy implementation. Studies conclude by making long lists of factors that are relevant for the development of climate policy. Clearly, this does not allow for assessing the causal significance of factors or whether they are necessary or sufficient conditions for successful implementation.

A configurational approach, by contrast, involves different combinations of conditions (configurations) that may lead to the specific outcome under analysis.[34,35] It assumes that factors and conditions might be combined in different ways to shape the outcome, and that the effect of any one causal factor may depend on the presence or absence of other conditions. For instance, Bulkeley's and other scholars´ argument[36] about different modes of climate governance is an attempt to develop this kind of typological analysis of climate policy.[37] Clearly, this approach to the study of climate policy can help to overcome the 'everything matters' trap. In this way, it will allow researchers and advocates of climate action to determine the conditions under which local climate policies can be successfully implemented.

Endnotes

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Fundación Ambiente y Recursos Naturales (FARN) is a non-governmental organization, created in 1985, 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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