CITY PROFILES NO. 1

BUENOS AIRES, ARGENTINA

NOVEMBER 2022

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To fight the climate crisis, cities have to become more sustainable now. Transformations towards sustainability must be based on the specific urban characteristics of each city. An analysis of the current factors that may or may not enable urban sustainability transformations is a first step for developing locally suited strategies.

TUC City Profiles is a series of short reports developed as part of the Transformative Urban Coalitions (TUC) project to share insights into the existing challenges and opportunities in order to address cross-cutting urban sustainability transformation and development issues through inclusive climate action in the five Latin American TUC cities.

The following short report summarizes the main findings from a political economy and ecology analysis of Buenos Aires, Argentina, describing its main geographic, socioeconomic and environmental characteristics, as well as climate governance set-up. It concludes with suggested entry points for transformative change towards sustainability.
Key Messages

While it is the jurisdiction with the highest per capita gross domestic product (GDP) in Argentina, there are historically marked differences in socioeconomic levels and socio-environmental conditions between the north and the south of the city of Buenos Aires. The effects of climate change are intertwined with those of economic globalization, a process of “double exposure” that disproportionately affects particular social groups and areas in the city.

Slums and informal settlements in Buenos Aires are growing in size. Most face significant resource and infrastructure deficits, as well as high flood risk, and are thus highly vulnerable to the effects of a changing climate. Tackling climate change in Buenos Aires requires integrated adaptation and mitigation approaches that put the most vulnerable at the centre. The ongoing socio-urban integration processes in informal settlements represent opportunities to rethink and territorialize climate action from an integrated habitat perspective.

Since the early 2000s, Buenos Aires has built a robust track record of climate policy, including a climate change law and three Climate Action Plans (PACs). The city has also long been a hotbed for social movements, with a recent resurgence of “the right to the city”, defined as the right of urban dwellers to build, decide and create the city. This provides fertile ground for climate justice narratives and transformative climate action to take root.

More than half of the city’s greenhouse gas (GHG) emissions come from the consumption of grid electricity and fuels in buildings, mostly natural gas. Multilevel and intersectoral articulation of public policies are key to advance the climate agenda at the city level, particularly in light of limited urban authority over the electricity sector.

Sustainability transformations in Buenos Aires could also be enabled by strengthening the existing capacity development efforts of particular local actors to raise climate awareness; connecting and amplifying emerging community-led initiatives that showcase transformative climate action; and clarifying financial flows as a way to stimulate climate financing.
The Autonomous City of Buenos Aires, or simply Buenos Aires City, is located on the western shore of the La Plata River, in the central-eastern region of Argentina. The city has a preponderant institutional role as the seat of the federal government and capital of the country.

The Metropolitan Region of Buenos Aires is the most important political-economic centre of Argentina and is part of a larger region known as the Industrial River Axis, made up of localities linked by ports and strong industrial settlements, extending from the city of La Plata to Rosario-San Lorenzo. While the metropolitan region has an area of 13,934 km² and a population of 15 million inhabitants, the city of Buenos Aires covers 203 km² and is home to around 3 million people (Instituto Nacional de Estadística y Censos, 2022).

The city of Buenos Aires is the richest jurisdiction in the country with a gross geographic product (GGP) of $4.575287 billion at current prices in 2020, which represents a quarter of the value of the national GDP (Dirección General de Estrategia Productiva (DGEP), 2020). The city’s GGP relies mostly on the services sector, commerce, and the manufacturing industry. In recent decades, the manufacturing industry has lost its central role, while the services sector has become more prominent (DGEP, 2020).

The city is administratively divided into 15 communes (see Figure 1) and 48 neighbourhoods with historically marked differences in socioeconomic levels and socio-environmental conditions between the north and the south of the city.

The Metropolitan Region of Buenos Aires includes the city and 41 districts of the province of Buenos Aires.

1. Urban Development in Buenos Aires City

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1 The Metropolitan Region of Buenos Aires includes the city and 41 districts of the province of Buenos Aires.
The latter contains a large part of unoccupied land and extensive areas for non-residential uses, as well as most of the city’s informal settlements and social housing developments. This spatial dynamic is correlated with labour market indicators: the unemployment rate surpasses 1 per cent in the southern zone, compared to 7.5 per cent in the central zone and 9.3 per cent in the northern zone (CenCoes, 2017). Regarding income, the city’s average is one of the highest in the country, but the regional distribution is spatially inequitable. The household income per capita in the northern zone is 1.4 times higher than in the central zone and 2 times higher than in the southern zone (CenCoes, 2017). Furthermore, the lower income sectors face worse conditions regarding access to green spaces: 25 per cent of the population at lower socioeconomic levels lacks access to green spaces. Comparatively, only 4 per cent of the people with higher incomes in the city have poor access to green spaces (Fundación Bunge y Bilba, 2020).

Since the 1980s, the population living in slums in Buenos Aires has tripled, contrasting with the overall demographic stability of the city (Goldbert and Leopón, 2018; Consejo Económico y Social de la Ciudad de Buenos Aires (CESBA), 2016). In 2020, it was estimated that around 230,000 people were living in slums and informal settlements in Buenos Aires, representing almost 8 per cent of the city’s population. Several villas are concentrated in Comuna 8 in the southern zone, namely villas 20, Lugano, Solidad and Riachuelo, and have shown the greatest growth in recent decades.

Buenos Aires suffers from a significant housing deficit, particularly in low-income neighbourhoods, because new housing units are not delivered in the places where demand is highest. This mismatch contributes to high levels of densification and overcrowding in the southern part of the city and many empty houses in the north and centre (CESBA, 2016; Koutsouvikis and Boldívar, 2015). It reinforces socio–spatial inequality between districts in the city’s north and south, with the north having the best indicators and the south – where the most populated informal housing settlements are located – being the most vulnerable. This vulnerability is also expressed in environmental terms. Flood-prone areas in the Matanza-Riachuelo Basin in the southern zone of Buenos Aires coincide with the location of slums and informal settlements that lack access to basic infrastructure and services, namely water, sanitation and electricity.

Eleven stream basins cross the city, some of which flow into the La Plata River and others into the Matanza-Riachuelo. In addition to other problems, the channelling and piping of these streams have made water invisible for urban planning, thus promoting urbanization and encouraging the occupation of historically flood-prone areas in the city. Furthermore, the city’s shoreline has been historically altered by filling, which progressively increases both its distance to the coast and run-off (Braiovsky, 2018; Marcomini and López, 2004). Road “improvements” that add layers of asphalt to the city’s avenues also prevent drainage from side streets (Maméndez and Rí, 2005; Carrion, 2008).

All of these vulnerabilities and risks are exacerbated by a changing climate. In Buenos Aires, climate change is already manifesting through increases in annual precipitation and extreme events, leading to more frequent flooding and the waterlogging of lowlands. Rising temperatures are also expressed in longer summers, milder winters and higher frequency and duration of heatwaves (Carrion, 2018).

In 2017, greenhouse gas (GHG) emissions in Buenos Aires totalled 11.7 million tons of carbon dioxide equivalent. More than half of these emissions (55 per cent) came from the energy sector, mostly from the consumption of grid electricity and fuels, mainly natural gas, in buildings. Thirty per cent of emissions are the result of the consumption of fuels and electricity in the transport sector. The remaining emissions are attributed to the waste sector (15 per cent), mainly resulting from the final disposal of waste from the city in landfills (Ciudad de Buenos Aires, 2020) (see Figure 2).

Emissions from the consumption of electricity and natural gas for stationary energy fall under the responsibility of the national government. Despite a lack of urban institutional authority, the government of the city of Buenos Aires can still develop energy efficiency programmes and incorporate energy suppliers (EDENOR and EDESUR) in its PACs.

2 Piped streams present various issues linked, for example, with saturation as the piping is not prepared to drain large quantities of water quickly and clogging may occur due to accumulated garbage that clogs drainage inlets.
The consolidation of climate governance in Buenos Aires has unfolded in three phases, each defined by the creation of key policy instruments:

**EMERGENCE IN THE 2000s**

The first PAC of Buenos Aires was published in 2009. It presented an update of the city’s first GHG inventory from 2003, as well as a climate scenario for 2030 and a business-as-usual scenario. One important aspect of the document was its emphasis on mitigation actions rather than adaptation measures. For instance, the plan proposed the incorporation of electric and hybrid vehicles in municipal transport fleets and the inclusion of energy efficiency criteria in government purchases. It also included traffic management measures, prioritization for pedestrians, cyclists and public passenger transport and an extension of the subway network. One key issue, perhaps related to the focus on mitigation, was the lack of identification of the most vulnerable groups affected by climate change according to socioeconomic levels, geographic location, gender, etc.

**INSTITUTIONALIZATION IN THE EARLY 2010s**

In 2011, Buenos Aires was the first jurisdiction in Argentina to adopt a climate change law (Ley de Adaptación y Mitigación al Cambio Climático). The law presents the sociopolitical, economic and environmental implications of climate change and the need to prioritize adaptation and mitigation policies for the most vulnerable social groups. It establishes an annual reporting mechanism to follow up on PAC initiatives and requires the preparation of a climate change adaptation and mitigation plan for the city every five years. The law also includes dissemination and communication strategies to enable access to information and participation of stakeholders. At the time, the responsibility for implementing the law was assigned to the climate change management office of the Environmental Protection Agency (APRA).

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2 This was an expression of the predominant international climate agenda of the time, which was more oriented towards mitigation than adaptation as a reflection of the Kyoto Protocol and the search for international financing through its clean development mechanism.
The External Advisory Council4, composed of academics and representatives of non-governmental organizations (NGOs), was tasked with assisting and advising the APRA in the development of public policies related to climate change. In addition to the council, the law prompted the creation of an interministerial team to articulate and mainstream the climate lens across all relevant areas and ministries of the Buenos Aires city government. In addition, every year since 2001, APRA together with the External Advisory Council and other government bodies has convened the Forum for the Fight against Climate Change, which is open to all the people who inhabit the city, to inform and receive opinions and suggestions on climate policy.

INTERNATIONALIZATION DURING THE LATE 2010s/EARLY 2020s

In 2015, the second PAC was presented. By then, the city had already joined the Covenant of Mayors for Climate & Energy, and thus had adopted the Global Protocol for Community-scale Greenhouse Gas Inventories (GPC) format for its GHG inventory. On the one hand, the new GPC methodology implied a loss of comparability with the historical data series presented in the first PAC. Therefore, although the analysis presented in the second PAC suggests reductions in emissions resulting from actions defined in the previous plan (e.g. new subway stations and improvements in energy efficiency due to light-emitting diode technology), these claims remain disputed. On the other hand, by following the GPC methodology, the city must incorporate a calculation of GHG emissions generated by the final disposal of waste outside of its jurisdiction, including in the larger Buenos Aires Metropolitan Area where landfills are located. This brings visibility to the outsourcing of environmental burdens to the city’s periphery and acts as a key driver for the city to incorporate more waste management measures in the second PAC, especially in terms of final disposal and treatment (e.g. new automated green centres and waste treatment plants).

The second PAC also included more adaptation measures, some of which were integrated in housing and urbanization programmes in slums. This represented a positive step towards prioritizing vulnerable groups in measures to tackle climate change, one of the main pillars of the 2011 climate law. Another change came in 2020, when the enforcement responsibility for the climate law was transferred from APRA to the environment secretariat of the Buenos Aires city government.

The third PAC was launched in 2021 and established the commitment of Buenos Aires to become a carbon neutral, resilient and inclusive city by 2050 in line with the Paris Agreement. The city aims to achieve a 92.9 per cent reduction in emissions by 2030 and an 84.4 per cent reduction by 2050 (relative to 2010 baseline year emissions). Although these targets are ambitious, they are backed by a strong implementation track record. For example, it is proposed that 100 per cent of buses circulating in the city will be zero emissions buses by 2030. Observing the trajectory of the past few years, there have been few advances in the incorporation of hybrid and/or electric vehicles. Without transformative action, it is unlikely that this goal will be achieved.

The third PAC also puts forward mitigation and adaptation measures formulated and prioritized through consultations with diverse actors, including the private sector, civil society organizations and universities (APRA, 2020). However, these measures generally have a low level of precision, which hinders assessments of costs and continuity. For instance, the second PAC proposed the construction of new recycling plants to reduce emissions related to waste treatment. In turn, the third PAC sets a goal for “more and better waste separation at source.” The actions proposed to achieve this goal include communication campaigns regarding the importance of raising and composting in households. It is not clear why this switch occurred, which resources will be allocated to these measures and which impacts are expected.

In addition to the External Advisory Council and the Forum to Fight Climate Change, which represent well-established citizen participation channels, new opportunities for consultation, debate and evaluation of climate policy, other mechanisms were formalized during the preparation of the third PAC. First, a private sector board was created in 2019 and gathers annually to promote dialogue among government and companies, industry chambers and business councils on PAC implementation. Second, the Environment and Sustainable Development Advisory Council, created in 2020, brings together more than 30 civil society organizations and entrepreneurs, especially organizations led by young people. The council’s function is to put forward recommendations to be considered by the environment secretariat for the development of public policies on relevant issues.

4 The External Advisory Council was created by decree in 2009 and incorporated into the local Climate Change Adaptation and Mitigation Law in 2011.
In Buenos Aires City, there are two other important instruments for climate governance. These are the Urban Environmental Plan (Plan Urbano Ambiental) and the Strategic Plan (Plan Estratégico). Yet, some inconsistencies have been identified when comparing PACs with the successive updates of the Urban Environmental Plan5 and the Strategic Plan6. For instance, despite acting as a key urban planning tool for Buenos Aires, the Urban Environmental Plan does not establish objectives related to climate change. As for the Strategic Plan, only the latest version proposes lines of action on climate change. This includes the recovery of ecological functions of the La Plata River by reducing pollution, prohibiting its privatization and creating green corridors, among other measures. This proposal is not included in the PACs. Many territorial conflicts have emerged due to these inconsistencies and, above all, because exemptions from adhering to building codes seem to have become common practice in Buenos Aires (Leveratto, 2019). This flexibility of urban planning norms, along with their general disconnection from climate policy, and the absence of real estate market regulations are key obstacles to advancing proposals that break with social inequalities in the city. They also significantly hinder the establishment of climate action as a central axis of public policy, especially in relation to urban planning and buildings.

At the same time, Buenos Aires is a hotbed of social movements and collective action. In several instances, neighbourhood assemblies have emerged in opposition to real estate projects in residential areas. They often promote alternative proposals for the use of public space and/or environmental education and rehabilitation programmes. Similar conflicts that affect spaces shared by several communes (e.g. Distrito Joven, Costa Salguero and Ex Ciudad Deportiva de La Boca) have fostered new citywide alliances between neighbourhood associations, grass-roots organizations and local professional collectives of lawyers, urban planners or architects, for example. This gives greater scope to individual claims and allows for the integration of multiple issues and agendas, including the climate agenda, typically under the right to the city.

The right to the city is once again at the centre of political debate across Latin America, and Buenos Aires is no exception. This resurgence is due to the multiplication of urban struggles against forms of land grabbing by financial capital, as well as processes of gentrification and environmental degradation. It is in this context that the right to the city narrative has been increasingly leveraged by citizens to advocate for greater participation in the definition of urban policies and defence of environmental rights guaranteed by the national constitution and the constitution of the Autonomous City of Buenos Aires (Melé and Merlinsky, 2021).

The participation model for climate policy in Buenos Aires reveals a high degree of institutionalization, including clear mechanisms, periodic meetings and reports to the legislature. Nevertheless, it falls short on coordinating actions with other policy areas. In terms of information, there are initiatives that seek to give visibility to government actions, but they do not necessarily raise citizens’ awareness about the importance of climate action. As for consultation processes, they are distributed across several advisory councils, some of which have a low impact on public policy decisions. Finally, various social groups, namely those living in slums and informal settlements, do not perceive themselves as adequately represented in climate-related urban debates and decisions.

This confluence of multiple agendas – right to the city, right to a healthy environment, right to information, participation and access to justice – opens up opportunities for a society that is more attentive to social inequalities as they relate to climate issues (Merlinsky, 2021). For example, investments in more climate-friendly housing and infrastructure for the lower income population of Buenos Aires should be considered as an active policy to prevent greater future risks but also provide social and environmental justice in the present.

5 The Urban Environmental Plan was formalized in 2008 and is currently being updated.
6 The Strategic Plan was published in 2004 and reformulated in 2017. A new revision process has been ongoing since 2017.
3. Entry Points for Urban Sustainability Transformation

The entry points for transformative climate action identified in Buenos Aires can be grouped into five categories:

MAINSTREAM CLIMATE CHANGE INTO MUNICIPAL AGENDAS

The integration of climate policy objectives, both for mitigation and adaptation, with economic development strategies, social policies, urban planning areas and other sectoral policies is a major challenge. This is largely explained by the fact that climate policy in Buenos Aires is conceived as a line of action that corresponds to the government’s environmental agencies. Designing and implementing mitigation measures that address transport and urban planning, as well as advancing adaptation measures that entail changes in land-use policy, require interministerial coordination. One option is to mainstream the climate agenda into other sectors while strengthening human resources. This task, as well as the broader task of developing public policies, involves a process of building consensus among different actors and institutions. There are various civil society organizations and transnational alliances that influence the climate agenda in Buenos Aires through their work on areas such as land-use planning, green spaces, urban mobility and flood management. Climate programmes and projects should be linked to issues that are already on the city’s agenda (e.g. floods, biodiversity protection and urban land policy). Following such logic, a promising strategy would be to promote the articulation of these initiatives and actors in coalitions that advocate for climate action and support the adoption and implementation of a long-term and integrated climate agenda. The strengthening of broader political and social coalitions in turn bolsters the advocacy and negotiation capacity of government officials trying to advance the climate agenda in local governments.
A multilevel governance framework is also necessary to integrate and connect various scales of intervention, which is necessary to promote coherence and coordination between local and federal climate policies and actions, especially regarding the electricity sector. Integrated climate policy and projects need to be territorialized in the city’s neighbourhoods and communes to strengthen urban climate governance. If policies translate into actions and are territorialized at the neighbourhood or commune level, they can be implemented with the support of community organizations, grassroots movements and local companies. There is also potential for coordination of local participation spaces based on the administrative division of communes and, therefore, opportunities to generate inclusive climate programmes in the communal councils themselves. In addition, ongoing socio-urban integration processes in the city’s villas represent unique opportunities to rethink climate action from an integrated habitat perspective. For this, the mainstreaming of the climate agenda in intervention agencies such as the Institute of Housing (Instituto de Vivienda de la Ciudad) (IVC) is essential.

INFORMATION & CAPACITY DEVELOPMENT
Among the civil society organizations that work on climate-related topics in the city are Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento, Sociedad Central de Arquitectos, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Equidad y el Crecimiento, Sociedad Central de Ingenieros Arquitectos, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Ambiente y Recursos Naturales, Asociación Sustentar, Fundación Ambiente y Recursos Naturales, Asociación Sustentar.

The private sector, considered by the government as the Institute of Housing (Instituto de Vivienda de la Ciudad) (IVC), supports the private sector to reorient their business models. There are also academic organizations that, inter alia, provide training workshops for municipalities and promote community initiatives. This can be seen in the University of Buenos Aires’ Interdisciplinary Program on Climate Change and Latin American Faculty of Social Sciences. Strengthening the existing culture of capacity building and sharing across these city actors could help address critical gaps in awareness or knowledge related to climate issues. In addition, the participation of Buenos Aires in international networks such as C40, ICLEI – Local Governments for Sustainability, 100 Resilient Cities Network and CDP could help to bring greater material, knowledge and data resources to local scientific and technical organizations, as well as specialized NGOs.

Growing availability of large databases and information updated by citizen science formats can feed into real-time comparison with public policies in other countries and cities, thus facilitating the exchange of good practices.

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CLIMATE FINANCE
Low levels of investment in mitigation and adaptation programmes – both public and private – are important shortcomings of climate governance in Buenos Aires. Yet, only the first PAC presented cost estimates for climate measures to be implemented. In the second and third PACs, no cost estimates or information about funding sources were included. As is the case of other cities, productive sectors in Buenos Aires have not taken action or changed investments in terms of emission mitigation or climate change adaptation beyond isolated pilot-type initiatives. This is in line with the low incidence of public investment in environmental management. Greater clarification of financial flows and incentives is important to adequately fund and implement mitigation strategies, as is the development of compliance targets and indicators for PACs, so that monitoring and evaluation can be carried out. To date, most successful initiatives have thrived due to international financing, which should continue but not crowd out national and local climate financing.
References


TUC seeks to shift the sustainability trajectory of cities towards zero carbon emissions by 2050 by altering the deeper social, technological and political structures and systems that are currently reinforcing high-carbon, resource-intensive urbanization. To achieve this goal, this project facilitates the establishment of transformative urban coalitions in five Latin American cities to develop new strategies for addressing local challenges in urban development and inequality while at the same time reducing carbon emissions.

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