

Climate Policy in the Municipalities of the Belo Horizonte Metropolitan Region (RMBH): From Information to Climate Action

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Executive Summary

This paper, which constitutes an excerpt from a broader research project, aims to identify whether—and how—the 34 municipalities of the Belo Horizonte Metropolitan Region (RMBH) are developing their climate policies, based on an assessment of municipal state capacities (Grin, Demarco, and Abrucio 2021) in this field. Secondarily, the paper seeks to expand the still incipient debate in the national literature regarding the reality of municipal state capacities. The study outlines key characteristics and presents data on access to information and instruments of municipal climate policy (Giddens 2010). A case study considered a “best practice” will be presented. The justification for this paper lies at the intersection of (i) the urgency of the issue of climate change; (ii) the gap in studies on municipal actions to address climate change, particularly in small and medium-sized municipalities; and (iii) the scarcity of studies that shed light on municipal state capacities to confront such challenges and problems.

Introduction and Methodology

The early 1970s marked the inclusion of the environmental agenda in major international debates, culminating, over the decades, in the adoption

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of the Paris Agreement in 2015. Since the Agreement's adoption, cities² have been identified as key actors in climate action, posing the challenge of developing norms, methodologies, indicators, and baselines to assess progress toward the goals of this agenda—such as the need to keep global warming below 1.5° C (United Nations Organization 2025). It is within the gap between the global agenda and the challenges experienced by communities affected by climate change that the subject of this paper is located: the cities of the Belo Horizonte Metropolitan Region (RMBH). This choice was made due to the existence of numerous initiatives on the subject (Gomes 2024) as well as the State Climate Action Plan (Governo de Minas Gerais 2024) with Belo Horizonte serving as a reference, as will be shown.

To achieve the central objective of the research, a literature review was conducted and requests were submitted under Brazil's Access to Information Law (Brazil 2021) (LAI), established by Law No. 12,527/2011, to the municipal governments of the RMBH. These requests were subsequently analyzed and cross-referenced with the Municipal Capacity Indicator (ICM).³ A total of 31 information requests⁴ were submitted among the 34 existing municipalities, resulting in 13 responses.⁵

The Role of Cities in Addressing Climate Change

Cities account for 70% of CO₂ emissions into the atmosphere (Turnbull *et al.* 2025) and concentrate 56% of the world's population (UN-Habitat 2024) and 87% of the Brazilian population (Britto 2024). They host some of the main causes of climate change, while also being where part of the solutions to this challenge lie, particularly in the fields of adaptation and emissions mitigation (Heidrich *et al.* 2016, 37; UN-Habitat 2024). The Sixth Assessment Report of the IPCC (IPCC 2022) states that issues of gender, race, and social class exacerbate vulnerability in regions such as the RMBH, which are marked

2 For the sake of writing fluency, the terms *city* and *municipality* will be used interchangeably, although they are not synonymous.

3 The ICM is the main monitoring indicator of Program 2318 – Risk and Disaster Management within the Federal Government's Multiannual Plan (PPA) 2024–2027.

4 For the missing municipalities, there were two issues. In one case, the applicant's registration had not been updated and access was denied, with no possibility of password recovery due to a system error. For the others, there was no available means to request access to information on the City Hall's website.

5 Between June 4 and 6, requests for access to information were submitted. It should be noted that five of the 34 municipalities are part of FalaBR, a unified channel for submitting requests to public agencies and entities, as well as for tracking responses. A sixth municipality had its own portal, but one integrated with the gov.br system. The remaining municipalities had either their own portals or outsourced platforms. In other words, for 29 of the 34 municipalities, it was necessary to access their respective city hall websites in order to try to find a way to submit the request, substantially increasing the time required.

by cumulative inequalities (Santos 2006, 15), a finding corroborated by the UN Women report (UN Women 2016). In this context, a lack of proportionality can be observed in how urban populations experience and respond to the impacts of climate change, which affects the aforementioned populations more intensely.

Heidrich *et al.* (2016, 37) warn that the ways and reasons why cities engage in climate policies largely remain poorly understood. Barbi (2014) highlights that much of the available research in Brazil and internationally addresses this issue only in megacities. According to IBGE data (Belandi 2024), nearly 70% of Brazilians live in municipalities with fewer than 500,000 inhabitants, making small and medium-sized cities a relevant yet underexplored object of study.

Most studies on state capacity focus on the federal level, but these approaches can be adapted to the subnational level (Silva & Junior 2022). Picavêa (2025) points out that the lack of technical and financial capacity, combined with fragile administrative structures, constitutes one of the main gaps in climate adaptation in Brazil. Additionally, Di Giulio (2025) found that only 13% of Brazilian municipalities are minimally prepared for the climate change context, considering institutional capacity and the existence of legal instruments aimed at adapting to the impacts of climate change. This gap in academic and scientific interest noted by Silva and Junior (2022) enables reflection on the consequences of climate change in cities and, on the other hand, an assessment of their capacity to respond to the challenges posed.

Discussions

The discussion on urban governance for climate change—or lack thereof—is urgent, especially in municipalities where there is greater vulnerability, as is the case in the RMBH (Governo de Minas Gerais 2025). Here, state capacity is understood as the State's ability to implement public policies and achieve their objectives (Cingolani 2013, 25). One way to assess state capacity is by identifying organizational structures, whose presence or absence is critical for local governments to fulfill their tasks related to climate change—and other policies—considering that they are the administrative level closest to citizens, even though their actions depend on laws and rules established by other levels of government.

When evaluating the responses received through access to information requests, the first research finding emerged: 100% of the municipalities

integrated into FalaBR responded⁶, in some way, pointing to the fact that municipal integration into a centralized information system (FalaBR) can contribute to enhancing state capacity with regard to the effective realization of the right of RMBH citizens to access information. It was also found that 62% of RMBH municipalities failed to comply with the Access to Information Law (LAI). A study conducted by the newspaper Estado de São Paulo (Estado) (Lima and Brembatti 2020) identified that 66% of municipalities in the state of São Paulo fail to comply with the Access to Information Law,⁷ running counter to what the Brazilian Federal Constitution establishes when it states that “everyone has the right to receive from public agencies information of personal interest, or of collective or general interest, which shall be provided within the time limits established by law.”

To support the research, the Municipal Capacity Indicator (ICM) was used, composed of 20 variables.⁸ The ICM was developed taking into account the risk profile, dividing municipalities into Priority⁹ and Non-Priority categories, as well as municipal size. It is noteworthy that of the 2,086 municipalities considered as priorities by the ICM—representing 37.4% of Brazilian municipalities—22 are located in the RMBH (Ministério da Integração e do Desenvolvimento Regional 2025)¹⁰, nearly twice the national average.

Article 12 of the Paris Agreement (United Nations Organization 2015) states that “*Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and access to information[...]*” (emphasis added), and to prevent the spread of fake news and disinformation, which together are considered the greatest global problem for the next two years¹¹. What can be observed is that transparency

6 There were seven complete responses, totaling 20% of the municipalities in the Belo Horizonte Metropolitan Area, and six more responses stating that they had no data, corresponding to 18% of the municipalities, totaling 38%. Of this total of 13 municipalities, five are integrated with FalaBR, one is integrated with gov.br, one has an outsourced portal, and six have their own portals.

7 The research conducted in São Paulo revealed cases in which requests submitted via the internet were not accepted and applicants were required to file their requests in person at City Hall, which also occurred in one of the municipalities of the RMBH. There were also instances in which the system crashed or failed to generate a protocol number, as well as the frequent absence of an appeal mechanism in cases of denied requests or inadequate responses.

8 The ICM is the main monitoring indicator of Program 2318 – Risk and Disaster Management in the 2024-2027 Multi-Year Plan (PPA, in portuguese), with the objective of measuring the improvement in municipal capacity in risk and disaster management actions. There are three dimensions of variables: I – Planning and Management Instrument; II – Intersectoral Coordination and Capacities; and III – Policies, Programs, and Actions.

9 Municipalities classified as Priority are those most susceptible to occurrences of landslides, flash floods, and flooding, and are therefore prioritized in federal actions related to risk and disaster management.

10 Análise feita pelo autor, a partir dos dados contidos na base de dados do Governo Federal.

11 The World Economic Forum’s *Global Risks 2025* report highlighted that the lack of information and misinformation together constitute the greatest risk to societies worldwide over the next two years.

in RMBH municipalities is deficient and violates existing legislation, thereby undermining the right to environmental information.

The survey points to the hypothesis that municipalities with greater state capacity to deal with climate change, such as Belo Horizonte, provide information in a more precise manner. Less structured municipalities, with fewer instruments to address climate change, provided disparate information. The presumption that transparency policies in that field are often merely symbolic was confirmed, which corroborates the hypothesis of Michener and Nichter (2020).

1. Recommendations to address this problem

- Establishment of task forces by command and control agencies to ensure that municipalities integrate into the unified system, FalaBR.
- Compliance by municipalities with the principles of Open Government, making information proactively available.
- Creation of institutional arrangements involving the participation of different actors—such as committees and forums with stakeholders from diverse sectors—for cities that still lack appropriate instruments.
- Participation of municipalities in national and international city networks, with support and intermediation from the Metropolitan Agency.
- Planning and management of climate policies between municipalities and the RMBH Metropolitan Agency based on data, such as the Minas Gerais Climate Vulnerability Index (IMVC) and the ICM.

2. Belo Horizonte: a roadmap for municipal climate action

Barbi (2021) warns that most cities with climate policies have climate change forums or committees established to assist municipalities in drafting specific policies to address this issue. This was the case of Belo Horizonte, the only municipality in the RMBH that presented such a policy, as reported in the questionnaire sent via the Access to Information Law (LAI). This fact highlights the city as a relevant case in the metropolitan and Brazilian context, due to its history of incorporating the issue into the municipal agenda since 2006, when the Municipal Committee on Climate Change and Eco-efficiency (CMMCE) was created. Within the scope of the CMMCE, the city has sought to build climate governance through legal instruments and

action plans, although it faces significant obstacles, such as very low effective social participation (Amaral, Magalhães & Tampieri 2022).

Municipal Law No. 10,175/2011, a pioneer in the country, established the Municipal Policy for Mitigation of the Effects of Climate Change. In 2024, Law No. 11.793 amended the 2011 law and set the target of reducing net CO₂ emissions by 100% by 2050. In 2013, the Greenhouse Gas Emissions Reduction Plan (PREGEE) presented the municipality's decarbonization pathway and was revised in 2020 (Prefeitura Municipal de Belo Horizonte 2025a). Another milestone is the preparation of emissions inventories (Prefeitura Municipal de Belo Horizonte 2025b), which began in 2009 and have had several editions, showing the sources and amounts of municipal emissions. The Climate Change Vulnerability Analysis (Prefeitura Municipal de Belo Horizonte 2016), prepared in 2015 with scenarios for 2016 and 2030, became a planning instrument for the city, indicating pathways to overcome the cumulative inequalities previously mentioned. The Local Climate Action Plan (PLAC) (Prefeitura Municipal de Belo Horizonte 2025c), published in 2022, presents a consolidation of the other existing instruments and sectoral plans, such as those for urban mobility, solid waste, housing, among others.

The City Hall created the Special Coordination Office for Climate Change¹², linked to the Mayor's Office (Brazil 2025), with various responsibilities, such as promoting institutional coordination to prioritize and implement municipal climate policy in the planning of municipal actions and projects. This coordination may be considered innovative, as it removes the "climate action" function from the Department of the Environment and elevates it to the Mayor's Office, including, the legal responsibility to "implement the municipal climate policy, in coordination with the bodies and entities of the Executive Branch" (Belo Horizonte 2025). In May 2025, after months of evaluation, the municipality published its Municipal Urban Tree Planting Plan (Prefeitura Municipal de Belo Horizonte 2025), aiming to expand and conserve urban tree cover in a planned manner, emphasizing social participation in the decision-making process.

Coêlho (2016) states that geographic proximity is an important variable in the analysis of public policy diffusion. In this sense, Belo Horizonte, as a "model city," can serve as a diffusion center for municipalities in the region, given the tendency for geographically close governments to adopt public policies similar to those of their "neighbors," with the aim of improving the

12 Established by Municipal Law No. 11,801 of January 2, 2025 (Article 16, item III).

quality of life of their own residents (Berry & Berry 2007). Also noteworthy is Belo Horizonte's capacity to innovate and keep the climate agenda active over the years, integrating instruments such as inventories, plans, and the inclusion of the issue in the Municipality's Organic Law, in Article 186, which provides that, in promoting urban development, the need to address climate change shall be observed.

While acknowledging criticisms regarding the representation of civil society in the planning, management, monitoring, and review of these instruments, the city demonstrates an ongoing effort to align its actions with international agreements, such as the Paris Agreement, and to address climate justice by recognizing that its impacts disproportionately affect vulnerable populations and marginalized territories.

References

Amaral, Marcelo Cintra do, Felipe Nunes Coelho Magalhães, e Guilherme Lara Camargos Tampieri. 2022. "O planejamento urbano e a mudança climática: contradições e desafios, entre capturas e potencialidades." In *Livro de Resumos do XIX Encontro Nacional da ANPUR*, Blumenau: FURB. https://anpur.org.br/wp-content/uploads/2022/12/livro_resumos_enanpur-2022.pdf.

Barbi, Fabiana. 2014. *Governando as mudanças climáticas no nível local: riscos e respostas políticas*. PhD diss., Universidade Estadual de Campinas, Campinas.

Barbi, Fabiana, e Fernando Cardozo Fernandes Rei. 2021. "Mudanças climáticas e agenda de adaptação nas cidades brasileiras." *Revista Catalana de Dret Ambiental* 12 (1): 1–34.

Belandi, Caio. 2024. "População estimada do país chega a 212,6 milhões de habitantes em 2024." IBGE. <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/41111-populacao-estimada-do-pais-chega-a-212-6-milhoes-de-habitantes-em-2024>.

Belo Horizonte. 2025. *Decreto nº 18.948, de 29 de janeiro de 2025: Dispõe sobre a organização do Gabinete do Prefeito*.

Berry, Frances Stokes, and William D. Berry. 2007. "Innovation and Diffusion Models in Policy Research." In *Theories of the Policy Process*, 2nd ed., edited by Paul Sabatier, 223–60. Boulder: Westview Press.

Belo Horizonte. Prefeitura de Belo Horizonte. 2025. *Decreto nº 18.948, de 29 de janeiro de 2025*. <https://dom-web.pbh.gov.br/visualizacao/ato/455455>.

Brazil. 2011. *Lei nº 12.527, de 18 de novembro de 2011*. https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2011/lei/l12527.htm.

Britto, Vinícius, and Breno Siqueira. 2024. “Censo 2022: 87% da população brasileira vive em áreas urbanas.” IBGE. <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/41901-censo-2022-87-da-populacao-brasileira-vive-em-areas-urbanas>.

Cingolani, Luciana. 2013. *The State of State Capacity: A Review of Concepts, Evidence and Measures*. MERIT Working Paper 2013-053. United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT), Maastricht.

Coêlho, Denilson B. 2016. “Mecanismos políticos e institucionais da difusão de políticas.” In *Difusão de políticas públicas*, edited by Carlos Aurélio Pimenta de Faria, Denilson Bandeira Coêlho, and Sidney Jard da Silva, 35–64. São Bernardo do Campo: Editora da UFABC.

Di Giulio, Gabriela Marques, et al. 2025. “Advancing Adaptation of Highly Heterogeneous Urban Contexts for Improved Distributive Climate Justice: An Analysis of Specific and Generic Adaptive Capacities of Brazilian Cities.” *Sustainable Cities and Society*: 106665. <https://doi.org/10.1016/j.scs.2025.106665>.

Grin, Eduardo José, Diogo Joel Demarco, and Fernando Luiz Abrucio. 2021. *Capacidades estatais municipais: o universo desconhecido no federalismo brasileiro*. Porto Alegre: UFRGS.

Gomes, Emerson. 2024. “Feam apresenta ferramenta de mudanças climáticas a municípios da RMBH.” FEAM. <https://feam.br/w/feam-apresenta-ferramenta-de-mudancas-climaticas-a-municipios-da-rmbh>.

Governo de Minas Gerais. 2024. *Plano Estadual de Ação Climática – PLAC-MG*. SEMAD. <https://meioambiente.mg.gov.br/w/plano-estadual-de-acao-climatica-plac-mg->.

Governo de Minas Gerais. 2025. *Vulnerabilidade às mudanças climáticas*. Clima Gerais. <https://clima-gerais.meioambiente.mg.gov.br/vulnerabilidade-territorial>.

Heidrich, Oliver, et al. 2016. “National Climate Policies Across Europe and Their Impacts on Cities Strategies.” *Journal of Environmental Management* 168: 36–45.

IPCC. 2021. “Summary for Policymakers.” In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment*

Report of the Intergovernmental Panel on Climate Change, edited by V. Masson-Delmotte, P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou. Cambridge: Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_Stand_Alone.pdf.

Michener, Gregory, and Simeon Nichter. 2020. *Variáveis determinantes para cumprimento à Lei de Acesso à Informação nos municípios brasileiros*. Working paper (Diagnóstico LAI municipal) apresentado à Controladoria-Geral da União, December 2020. https://www.gov.br/cgu/pt-br/governo-aberto/a-ogp/planos-de-acao/4o-plano-de-acao-brasileiro/compromisso-11-docs/diagnostico-lai-municipal-determinantes-michener_nichter-fgv-tp.pdf.

Lima, Samuel, and Katia Brembatti. 2020. “Dois terços das cidades paulistas desrespeitam Lei de Acesso à Informação.” *Estadão*. <https://www.estadao.com.br/politica/dois-tercos-das-cidades-paulistas-desrespeitam-lei-de-acesso-a-informacao/>.

Michener, Gregory, and Simeon Nichter. 2020. *Variáveis determinantes para cumprimento à Lei de Acesso à Informação nos municípios brasileiros*. Working paper (Diagnóstico LAI municipal) presented to Controladoria-Geral da União, December 2020. https://www.gov.br/cgu/pt-br/governo-aberto/a-ogp/planos-de-acao/4o-plano-de-acao-brasileiro/compromisso-11-docs/diagnostico-lai-municipal-determinantes-michener_nichter-fgv-tp.pdf.

Ministério da Integração e do Desenvolvimento Regional. 2025. *Indicador de Capacidade Municipal (ICM)*. Governo Federal. <https://www.gov.br/mdr/pt-br/assuntos/protecao-e-defesa-civil/icm>.

United Nations Organization. 2015. *Paris Agreement*.

United Nations Organization. 2025. *1.5°C: What It Means and Why It Matters*. ONU – Climate Action. <https://www.un.org/en/climatechange/science/climate-issues/degrees-matter>.

Prefeitura Municipal de Belo Horizonte. 2025b. *Histórico do inventário de emissão de gases de efeito estufa*. Belo Horizonte. <https://prefeitura.pbh.gov.br/meio-ambiente/inventario-de-emissao-de-gases-de-efeito-estufa>.

Prefeitura Municipal de Belo Horizonte. 2025b. *Histórico do inventário de emissão de gases de efeito estufa*. Belo Horizonte. <https://prefeitura.pbh.gov.br/meio-ambiente/inventario-de-emissao-de-gases-de-efeito-estufa>.

Prefeitura Municipal de Belo Horizonte. 2025a. *Revisão do Plano de Redução de Emissões de Gases de Efeito Estufa*. Belo Horizonte. <https://prefeitura.pbh.gov.br/meio-ambiente/revisao-do-plano-de-reducao-de-emissoes-de-gases-de-efeito-estufa>.

Prefeitura Municipal de Belo Horizonte, and ICLEI – Governos Locais pela Sustentabilidade. 2025c. *Plano Local de Ação Climática de Belo Horizonte (PLAC-BH)*. Belo Horizonte. <https://prefeitura.pbh.gov.br/sites/default/files/estrutura-de-governo/meio-ambiente/placfinal.pdf>.

Prefeitura Municipal de Belo Horizonte, and WayCarbon. 2016. *Análise de vulnerabilidade às mudanças climáticas do município de Belo Horizonte: relatório final*. Belo Horizonte. https://prefeitura.pbh.gov.br/sites/default/files/estrutura-de-governo/meio-ambiente/2025/estudo_vulnerabilidade_ambiental.pdf.

Santos, Wanderley Guilherme dos. 2006. *Horizonte do desejo: instabilidade, fracasso coletivo e inércia social*. Rio de Janeiro: Editora FGV.

Silva, Roseane Grossi, and Valdir Machado Valadão Júnior. 2022. “Capacidades estatais municipais: proposta para uma agenda de pesquisa e percurso metodológico.” *APGS – Administração Pública e Gestão Social* 14 (4).

Turnbull, Jocelyn, et al. 2022. *IG³IS Urban Greenhouse Gas Emission Observation and Monitoring Good Research Practice Guidelines (GAW Report No. 275)*. Geneva: World Meteorological Organization and Empa. https://urban-climate.org/wp-content/uploads/2024/06/GAW_275_en.pdf.

UN-Habitat. 2024. *World Cities Report 2024: Cities and Climate Action*. Nairobi: UN-Habitat. <https://unhabitat.org/world-cities-report-2024-cities-and-climate-action>.

UN Women. 2016. *Implementation of Gender-Responsive Climate Action in the Context of Sustainable Development: Report of the Expert Group Meeting*. Bonn: UN Women. https://unfccc.int/files/gender_and_climate_change/application/pdf/egmreport.pdf.

Yamin, Farhana, and Joanna Depledge. 2004. *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures*. Cambridge: Cambridge University Press.