Methodological transparency issues, procedures, and primary research sources

This research aimed to investigate the initiative to establish an MRV (Monitoring, Reporting, and Verification) system for the national climate policies in Brazil, and the reasons for its lack of success. The case of NAFC, a group set up between representatives of the federal government and subnational states, with the support of external actors (third sector actors, foreign cooperation agencies, research institutions, etc), was chosen due to its potential to enable an investigation of current dynamics in international climate policy. These dynamics refer to the challenges of achieving internationally agreed climate policy (especially GHG emissions reductions) in the absence of centralized enforcement mechanisms, through the 'bottom-up' logic established in the Paris Agreement. The high complexity of climate policy means that this logic involves 'steering' a variety of actors on different levels towards climate goals. The prominence of the so-called 'non-state actors', defined for this research as all actors that are not member states of the United Nations Framework Convention on Climate Change rose both in practice and in academic research. Nevertheless, UNFCCC remains an agreement between states, which bear responsibility for implementation. NAFC provided, thus, an opportunity to examine how member-states and the emerging 'non-state actors' interact, and how features of different levels of policymaking interact to produce public policies.

This research is both explanatory and descriptive. The fundamental research question requires an explanatory answer, i.e. an answer that articulates the relationships between different factors or aspects of an issue (KUMAR, 2011, pp. 31-32) and how these factors and relationships contribute to the occurrence of a phenomenon (GIL, 2008, p. 28). In this case, the aim is to understand how institutional arrangements and the capacities they mobilize influenced the steps taken to implement an MRV in Brazil. To do this, it is necessary to systematically describe them (GIL, 2008, p. 28; KUMAR, 2011, pp. 31-32).

The research is qualitative. Although there is an effort to explain a phenomenon based on the causes that contribute to its occurrence, this analysis corresponds to the aspects of qualitative research described by Flick (2004): as it is not possible to isolate factors to establish universal cause and consequence relationships,

the phenomena that are the subject of this work will be analyzed as issues situated in a complex context, formed by the totality and diversity of the daily practices of the actors involved. The theoretical orientation of the work is constructivism, insofar as there is a focus on the interaction between individuals and how the structure shapes these interactions and at the same time is shaped by them (FLICK, 2004, p. 71; GIL, 2008, p. 24).

The theoretical framework chosen for the investigation was the one set by Lascoumes and Le Galés (2012) in their sociology of public action. These authors reviewed transformations in theoretical frameworks for understanding public policy and provided a framework to understand public policies as the result of the mobilization and interaction of different players. This framework conceives the policy space as a locus for dispute between a variety of actors and conceptions of public policy and the formation of consensuses as a requisite for their production. It is, therefore, adequate for the investigation of the case of the NAFC and its (non-) production of consensus for the implementation of an MRV.

The framework is based on the categories in the pentagon of public policy (actors, representations, institutions, processes, and outcomes). Those categories come from different branches of political science and political sociology. Lascoumes and Le Galès (2012) bring them together and schematize them as elements in the processes of dispute and consensus formation in policymaking. This schematization enables the localization of the NAFC process in its specific context and the development of a constructivist analysis, by specifying the 'building blocks' of the social structures that shaped the actors' participation, and how they mobilized the elements of such structures. While each of the elements of the pentagon allows for individual, in-depth studies, a strategic choice for the use of all was set for this research. This choice is justified by the need to map a playing field that has been insufficiently explored and therefore does not yet allow for in-depth studies. Besides that, literature on the topic is also emerging and emphasizes the need to understand how the elements in the production of public policies interact to produce specific policy pathways and resulting policies. Given the absence of specific studies about the MRV case in Brazil, a broader analysis contributes to the creation of a cross-sectional look at

the process. This supports further research both on this specific case and in comparative analysis of similar cases.

The choices related to data collection were based on the need to identify each of the elements in the Pentagon in the case at hand. It was thus necessary to collect material that allowed: 01. the identification of participating actors; 02. the analysis of actors' representations; 03. the institutional context of interaction; and 04. how processes concretely took shape. The research relied on documents and interviews.

Documents used for this research included government documents (legal texts, administrative decisions, reports, etc), knowledge products produced by non-state actors, and textual documents (news, press releases, etc) from different sources containing information about NAFC activities and MRV policies in Brazil (all documents are listed below).

Analysis of legislation also provided information on the institutional context, the position, and the roles of the involved actors. Legal documents showed under which administrative structures NAFC functioned and the policy context, that is, the goals and bodies of the Brazilian Climate Policy. Other legal documents relate to the roles and prerogatives of the different federative bodies in Brazilian public administration.

Official documents about NAFC specifically (statutes, activity plans, PowerPoint presentations, and others) from the federal government were essential to identify the participating actors - institutions and their specific representatives. Those documents did not comprise the entirety of NAFC's activities, but they also contained relevant information about the institutional context (the government bodies involved and their roles), the processes (through the description of activities, rules, etc), and the outcomes (which are documented in the final report). They also helped to identify and give context to representations: a few PowerPoint presentations from NAFC activities describing policies from subnational states and explanations on MRV by non-state actors helped to construct their representation of the policy. Representations of the policy from the side of non-state actors were found in their published knowledge products.

Minutes from meetings and activities of NAFC were not made public. For this reason, and because documents do not capture all representations and interactions,

interviews with participants and other actors in institutions related to the process and the topic of the MRV were conducted. Due to challenges in obtaining documentation of activities and information about the participants, only two people who participated directly in the process could be contacted. The other two persons interviewed worked in institutions that participated in the process and knew the context well.

The subsequent analysis of documents and interviews sought to identify the pentagon elements, as they appeared in the NAFC process. The actors were identified through the names of the individuals and their institutional affiliations in lists of participants.

The identification of the representations of the policy by actors was operationalized through the search for definitions and descriptions of an MRV, and the normative perspectives that underlie or are attached to them. Some documents presented explicit definitions of the MRV, but mentions of purposes or goals to be achieved by the system were also considered. Descriptions were understood as an enumeration of the characteristics of an MRV. Examples of descriptions included in this category and found in the documents were lists of elements, resources, relevant actors, their roles, and structures necessary for an MRV. Normative perspectives are related to the ideas and criteria that should orient the definition and description of the MRV. In the research, the conflict between two normative frameworks was identified: a 'cost-benefit' perspective of how to implement the system, versus the MRV as a political arrangement that should respect Brazil's federative organization emerged as an opposing view to the economic one. Those normative views could be identified in the documents in the form of 'best practices' and 'recommendations' that are common in policy recommendations by knowledge actors in the development policy field. The normative perspectives from actors in the federal government and subnational actors were obtained via interviews. During the interviews, questions addressed these normative aspects specifically, and the participants commented on other perspectives in the process directly and specifically.

The institutional context of interaction was drawn thanks to both documents (especially legal texts and specific documents from NAFC) and interviews. Legal texts and documents offered information on the position of NAFC within the structures of

the Brazilian Climate policy and the rules under which these structures operate. The specific context of NAFC, with the distribution of roles amongst actors and rules for behavior, could be found in specific documents. Since informal structures also shape actors' activities, the interviews offered insight into other rules informing the activities of NAFC. The elements constituting this institutional context are described in Figure 02 of the paper.

The documents from NAFC also described processes, in the form of a description of plans of activities, and reports of the activities. This description was supplemented by accounts given by interview participants. Processes concern actors' mobilization of resources and the conflicts, concessions, and production of agreements between them. The evidence from documents and interviews pointed to contentious issues. In interviews, specifically, actors recounted interactions and factors that influenced them. Finally, while this research departed from the examination of the absence of NAFC's 'intended outcome', interviews and documentary evidence also presented results that came out of the process, in the shape of the final report and administrative decisions from IBAMA, even if they were not finally implemented. As a whole, the study of each of the elements of the Pentagon clarified how those outcomes came to be produced but remained without effects in Brazilian Climate Policy.

Data sources

Our data were collected from regulations, official documents from intergovernmental, governmental, and non-governmental bodies (especially government partners), and semi-structured interviews.

Documental sources: legislation and reports

The data from the official documents were employed to describe the official procedures, and institutional arrangements, identify relevant actors, activities, and processes, observing how these interactions contributed to consensus building. The documents used were chosen according to availability and relevance criteria.

Table 01 presents the agreements and reports of the Framework Convention on Climate Change.

Table 01. Agreements and reports from UNFCCC

Id	Reference	Available at	Access
01	UNFCCC. Kyoto Protocol, 1998.	https://unfccc.int/resource/docs/convkp/kpeng.pdf	Dec. 06, 2021
02	UNFCCC. Paris Agreement, 2015	https://unfccc.int/sites/default/files/english_paris_agreement.pdf	Dec. 06, 2021
03	UNFCCC. Decision 01/COP15, December 19, 2009	https://unfccc.int/sites/default/files/resource/docs/2009/cop15/eng/11a01.pdf?download	Dec. 06, 2021
04	UNFCCC. Decision 01/COP16, November 29, 2010	https://unfccc.int/sites/default/files/resource/docs/2009/cop15/eng/11a01.pdf?download	Dec. 06, 2021
05	UNFCCC. Decision 01/CP.21. FCCC/CP/2015/10/Add.1. January,29, 2016	https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf	Dec. 06, 2021
06	UNFCCC. Decision 02/COP17. December 11, 2011	https://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf.	Dec. 06, 2021
07	UNFCCC. Decision 17/CP8. March 28, 2003	http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3	Dec. 06, 2021
08	UNFCCC. Decision 18/CMA1. December 15, 2018	https://unfccc.int/sites/default/files/resource/cma2018_3_add2_new_advance.pdf	Dec. 06, 2021

Source: Elaborated by the authors.

Table 02 presents Brazilian reports on UNFCCC. Tables 03 and 04 list the Brazilian legislation related to the climate and to participation, respectively.

Table 02. Brazilian National Communications before UNFCCC

Id	Reference	Available at	Access
01	BRAZIL. Biennial update report (BUR). BUR 01. | UNFCCC. Biennial update report (BUR), Nº 01. Brasília, DF: 2014	https://unfccc.int/documents/180611	Nov 05, 2021
02	BRAZIL. Biennial update report (BUR). BUR 02. | UNFCCC. Biennial update report (BUR), Nº 02. Brasília, DF: 2017	https://unfccc.int/documents/180612	Nov 05, 2021
03	BRAZIL. Biennial update report (BUR). BUR 03. | UNFCCC. Biennial update report (BUR), Nº 03. Brasília, DF: 2019	https://unfccc.int/documents/193513	Nov 05, 2021
04	BRAZIL. Biennial update report (BUR). BUR 04. | UNFCCC. Biennial update report (BUR), Nº 04. Brasilia, DF: 2020a	https://unfccc.int/documents/267661	Nov 05, 2021
05	BRAZIL. National Communication (NC). NC 01. | UNFCCC. National Communication (NC), Nº 01. Brasilia, DF: 2004	https://unfccc.int/documents/66128	Nov 05, 2021
06	BRAZIL. National Communication (NC). NC 02. | UNFCCC. National Communication (NC), Nº 02. Brasilia, DF: 2010	https://unfccc.int/documents/69067	Nov 05, 2021
07	BRAZIL. National Communication (NC). NC 03. | UNFCCC. National Communication (NC), Nº 03. 2016	https://unfccc.int/documents/66129	Nov 05, 2021
08	BRAZIL. National communication (NC). NC 04. | UNFCCC. National communication (NC), Nº 04. Brasilia, DF: 2020b.	https://unfccc.int/documents/267657	Nov 05, 2021

Source: Elaborated by the authors.

Table 03. Brazilian legislation on climate

Id	Reference	Available at	Access
01	BRAZIL. Participa + Brasil – Public consultation on draft bill for the National Plano on Climate Change - PNMC. Participa + Brasil. Nov 05, 2021	https://www.gov.br/participamaisbrasil/consulta-publica-pnmc	Dec. 06, 2021
02	BRAZIL. Presidency of the Republic. Criates the Interministerial Commission on Global Climate Change. Official Gazette of the Union. July 07, 1999	http://www.planalto.gov.br/ccivil_03/dnn/Anterior%20a%202000/Dnn07-07-99-2.htm.	Nov 05, 2021
03	BRAZIL. Presidency of the Republic. Establishes the Action Plan for the Prevention and Control of Deforestation and Burning in the Cerrado Biome - PPCerrado, amends the Decree of July 03, 2003, wich establishes a Permanent Interministerial Working Group. Official Gazette of the Union. Sep 15, 2010	http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2010/Dnn/Dnn12867.htm#art3	Nov 05, 2021
04	BRAZIL. Presidency of the Republic. Establishes the Interministerial Committee on Climate Change – CIM, guides the preparation of the National Plano n Climate Changeand provides other measures. Official Gazette of the Union. Nov 21, 2007	http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2007/Decreto/D6263.htm	Nov 05, 2021
05	BRAZIL. Presidency of the Republic. Establishes the National Policy on Climate Change – PNMC and provides others measures. Official Gazette of the Union. Dec 29, 2009	http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12187.htm.	Nov 05, 2021
06	BRAZIL. Federal Senate. Amends Law Nº 12.187, of December 29, 2009, which establishes the National Policy on Climate Change (PNMC), to update it to the context of the Paris Agreement and the new challenges related to climate change. Official Gazette of the Union. Nov 08, 2019c	https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2306089	Nov 05, 2021
07	FEDERAL, Senate. Assessment of the National Policy on Climate Change. Environment Committee. Brasília, 2019	http://legis.senado.leg.br/sdleg-getter/documento/download/c002f430-7ece-4ccb-aad3-9247f62713ab	Dec 06, 2021
08	IN-IBAMA. Regulate the Annual Report on Potentially Polluting Activities and Users of Environmental Resources – RAPP, in accordance with this Normative Instruction. Official Gazette of the Union. Feb. 28, 2014		
09	Ministry of Science, Technology and Innovation. Management Plan of the Worging Group on Greenhouse Gas Emissions Inventory of the Federative Articulation Center on Climate. 2013	https://antigo.mma.gov.br/images/arquivo/80077/Plano%20de%20Gerenciamento%20GT-Inventario.pdf.	Nov 05, 2021

Source: Elaborated by the authors.

Table 04. Brazilian legislation on participation

Id	Reference	Available at	Access
01	BRAZIL. Presidency of the Republic. Extingueshes and establish guidelines, rules and limitations for federal public administration bodies. Official Gazette of the Union. April 11, 2019a.	http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2019/decreto/D9759.htm	Nov 05, 2021
02	BRAZIL. Presidency of the Republic. Extingueshes and establish guidelines, rules and limitations for federal public administration bodies. Official Gazette of the Union. November 28, 2019b.	http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2019/decreto/D10145.htm	Nov 05, 2021
03	BRAZIL. Federal Constitution. Ocotober 03, 1988.	https://www.planalto.gov.br/ccivil_03/Constituicao/Constituicao.htm	Sep 20, 2022

Source: Elaborated by the authors.

Table 05 presents instructive reports, MRV drafting guides, and other materials published by international non-state actors active in the implementation of UNFCCC transparency policies, such as reports, studies, and knowledge products produced by these actors in general.

Table 05. Reports produced by non-state actors active in the implementation of UNFCCC MRV policies

Id	Reference	Available at	Access
01	Institutional Arrangements for MRV	https://transparency-partnership.net/sites/default/files/institutional_arrangements_mrv_final.pdf	Dec 06, 2021
02	Measurement, Reporting and Verification (A note on the concept with an annotated bibliography)	https://www.iisd.org/publications/measurement-reporting-and-verification-note-concept-annotated-bibliography	Nov 04, 2021
03	Supporting Action for Climate Change Mitigation.	https://www.thepmr.org/content/supporting-action-climate-change-mitigation	Dec 06, 2021
04	Guide for developing mandatory greenhouse gas reporting programs	https://www.wribrasil.org.br/sites/default/files/GuiaRelatosGEE.pdf	Nov 01, 2021
05	Understanding Measurement, Reporting, and Verification of Climate Change Mitigation	https://www.wri.org/research/mrv-101-understanding-measurement-reporting-	Dec 06, 2021

		and-verification-climate-change-mitigation	
06	Deciphering MRV, accounting and transparency for the post-Paris era	https://transparency-partnership.net/system/files/document/MRV.pdf	Dec 03, 2021
07	With dialogue, Brazil can have a good program to measure, report and verify emissions	https://wribrasil.org.br/pt/blog/2018/10/com-dialogo-brasil-pode-ter-um-bom-programa-para-mensurar-relatar-e-verificar	Nov 05, 2021
08	Governance challenges in creating a MRV system for the Brazilian MDC	https://wribrasil.org.br/pt/eventos/desafios-governanca-mrv-brasil-ndc	Nov 05, 2021
09	ELSAYED, S. (2012) Initiating a national ghg inventory system and making it sustainable: case study from Brazil. (MAPT National GHG Inventory Case Study Series).	https://docs.google.com/a/academico.ufpb.br/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxtYXB0cGFydG5lcnJlc2VhcmNofGd4OjY0MjcwZjg3ZWVjYWYzMmM	Dec 06, 2021
10	ELSAYED, S. (2013) Institutional Arrangements for MRV. DOI 10.13140/2.1.3237.3441.	https://transparency-partnership.net/sites/default/files/institutional_arrangements_mrv_final.pdf	Dec 06, 2021
11	MUCCI, M. (2012), Measurement, Reporting and Verification (A note on the concept with an annotated bibliography). International Institute for Sustainable Development.	https://www.iisd.org/publications/measurement-reporting-and-verification-note-concept-annotated-bibliography	Nov 04, 2021
12	Partnership for Market Readiness. Supporting Action for Climate Change Mitigation.	https://www.thepmr.org/content/supporting-action-climate-change-mitigation.	Dec 06, 2021
13	SINGH, N. and BACHER, K. (2015), Guide for developing mandatory greenhouse gas reporting programs. Partnership for Market Readiness – World Bank and World Resources Institute.		
	SINGH, N.; FINNEGAN, J. and LEVIN, K. (2016), MRV 101: Understanding Measurement, Reporting, and Verification of Climate Change Mitigation. 26 ago. 2016.	https://www.wri.org/research/mrv-101-understanding-measurement-reporting-and-verification-climate-change-mitigation.	Dec 06, 2021
	Transparency Partnership. About.	https://transparency-partnership.net/about.	Dec 06, 2021a
	Transparency Partnership. Network.	https://transparency-partnership.net/who-we-are/network.	Nov 07, 2021b

WARTMANN, S.; SALAS, R.; RICARDO ENERGY & ENVIRONMENT; BLANK, D.; GIZ (2018), Deciphering MRV, accounting and transparency for the post-Paris era. Bonn: GIZ, 2018.	https://transparency-partnership.net/system/files/document/MRV.pdf.	
World Bank. Readiness to Implementation. 2019.	https://www.thepmr.org/system/files/documents/Update%20on%20Partnership%20for%20Market%20Implementation%20%28PMI%29.pdf.	Feb 07, 2021
WRI BRAZIL. With dialogue, Brazil can have a good program to measure, report and verify emissions Oct 26, 2018a. WRI Brazil.	https://wribrasil.org.br/pt/blog/2018/10/com-dialogo-brasil-pode-ter-um-bom-programa-para-mensurar-relatar-e-verificar.	Nov 05, 2021
WRI BRAZIL. Governance challenges in creating a MRV system for the Brazilian MDC. August 14, 2018b. WRI Brazil.	https://wribrasil.org.br/pt/eventos/desafios-governanca-mrv-brasil-ndc.	Nov 05, 2021

Source: Elaborated by the authors.

Another important source for the present research was the working plan, as well as other reports produced under the Federal Articulation Nucleus for the Climate (NAFC, in Portuguese) Registration Working Group.

Table 06. Reports produced by NAFC

Id	Reference	Available at	Access
01	NAFC (2013a), 1st Meeting of the GT Record of Emissions and Removals: introduction at work plan. June 06	https://antigo.mma.gov.br/images/arquivo/80076/Plano%20de%20Trabalho%20do%20GT%20Registro%20-%201a.%20Reuniao%20Versao%20Final.pdf	Jan 07, 2021
02	NAFC (2013b), Information collection and MRV of emissions and removals - RAPP/CTF. June 07.	https://antigo.mma.gov.br/images/arquivo/80076/5%20Apresentacao%20RAPP_CTF%207_06_2013.pdf	Dec 10, 2021
03	NAFC (2013c), Information collection and MRV of emissions and removals: 'SÃO PAULO'. June 06.	https://antigo.mma.gov.br/images/arquivo/80076/Coleta%20de%20Informacoes%20e%20MRV%20de%20Emissoes%20e%20Remocoes%20-%20SAO%20PAULO.pdf.	Jan 07, 2021
04	NAFC (2013d), GT Emissions Registry information collection system and MRV of emissions and removals: ERJ initiatives. June 06.	https://antigo.mma.gov.br/images/arquivo/80076/SISEMA%20MINAS%20GERAIS.pdf.	Jan 07, 2021
05	NAFC (2013e), GT final report record of emissions by sources and removals by sink. February.	https://www.researchgate.net/publication/332060874_RELATORIO_FINAL_-_GRUPO_DE_TRABALHO_SOBRE_REGISTRO_DE_EMISSOES_POR_FONTES_E_REMOCOES_POR_SUMIDOUROS_GT_REGISTRO	Nov 24, 2021
06	NAFC (2013f), SISEMA - Minas Gerais. June 06	https://antigo.mma.gov.br/images/arquivo/80076/SISEMA%20MINAS%20GERAIS.pdf.	Jan 07, 2021

Source: Elaborated by the authors.

This document mentions the participation of four non-state entities: WRI, GIZ, GVCes/FGV, and World Bank. These actors are also part of global implementation and knowledge networks in support of MRV implementation, including partnerships directly linked to the UNFCCC (TRANSPARENCY PARTNERSHIP).

The most relevant of these partnerships, the Partnership for NAMAs and MRV, later transformed into the 'Partnership for Transparency' and the Paris Agreement, counts on the participation of the UNFCCC and other entities of the UN system. Other non-state actors include WRI, GIZ, and PMR (PARTNERSHIP FOR MARKET READINESS). In addition, GVCes has collaborated with the WRI in conducting case studies on policy frameworks for the preparation of greenhouse gas inventories in Brazil.

We sought to broaden the range of research through references to other texts found in these works. Often, these references are products of other actors and initiatives linked in some way to the Transparency Partnership, such as the Internationales Klimaschutzinitiative (IKI) of the German government, linked to the NDC Partnership, which in turn is linked to the Transparency Partnership in the first place.

Interviews

The available documents on the NAFC's activities, however, are scarce. In this collection, there is no clarity about the results obtained, just as there is no detailed record of the activities or the exchanges that took place in the activity of the WGs. Consequently, the analysis of institutional structures, technical capacities, and value-political agreements was hampered. Therefore, interviews were conducted with actors involved in the discussions about MRV. From the interviews, it was possible to identify the interests that guided their strategies for implementation and to better understand how the interaction processes took place and better elucidate the results.

It was difficult to identify participants in the Registration WG discussions specifically, as the documents made available on the Ministry of Environment's website did not have lists of participants. Although the contact details of the administrative bodies of the reporting program were available, attempts to contact them through this channel failed. We opened interest statements through the service portals of the state governments, but in some cases (Pernambuco), the citizen service could not inform about the competent bodies, in others (Minas Gerais, Amazonas, Pernambuco again) there was no response.

Only through the personal contacts of two of the participants in the documents was it possible to reach not only interviewees who participated in the activities, but also a document with a list of participants. Interviewee 03, who was a member of the MMA team that worked in the NAFC, knew that the report had been made and shared the document through non-institutional channels (NAFC, 2013a, d). From this list, we tried to find the contact references of the PMR team from the MF and some states. Some actors left the team and their new contact was not identified. In other cases, contacts found in search engines were used, with no response. Due to these factors, the number of interviewees was restricted.

We interviewed four people. Given the difficulty in obtaining responses from actors, interviewee 01 was an actor participating in the Initiative for Climate Action Transparency (ICAT) project, an international partnership implemented in Brazil with the support of the Brazil Climate Center. The ICAT project currently conducts training in the area of carbon accounting and MRV in some Brazilian states. Although not related to the NAFC - the states' participation in this project gives the interviewee access to the states' representations and interests.

Interviewees 02 and 03 participated in the activities of the Registration WG. Their contacts were obtained through exchanges with the contacts that appear in the documents made available on the Brazilian Environmental Ministry (MMA) website. Interviewee 02 held high-level positions in the government of a Brazilian state that was a pioneer in climate policy and has its own registry program. Although not representative of the universe of states, the testimony of this interviewee helped to illuminate the dynamics of interaction in the WG.

Interviewee 03 is a career employee of IBAMA and, at the time, was assigned to participate in the WG activities through the MMA. This interviewee, who made the GT's final report available through official means (including through a LAI request), demonstrated a great personal investment of resources and dedication to the topic. He did not request anonymity (although, out of caution, we opted to maintain it) and, therefore, his account was in many moments limited by compliance with an official version of events. Still, this interview was revealing of common dynamics at the federal level. Moreover, the interviewee's great professional and personal

investment in the topic made him have a great need to share this narrative that was obscured, and his interview gave clues to the understanding of the processes of the WG.

Finally, interviewee 04 is a civil servant at the Ministry of Budget, Planning and Management. Although he did not participate in the discussions of the WG itself, this interviewee was aware of the debates that took place and participated in subsequent discussions on MRV in the context of the implementation of Brazil's Nationally Determined Measure in the Paris agreement-a context in which transparency in climate action became even more important. This actor contributed with an assessment of the role of states in the Brazilian National Policy of Climate Change (PNMC), and in diagnosing the predominant perception of the federal government on the participation of states in this policy.

Table 07. Interviewees

Identification	Reference	Professional acting
Interviewee 01	**Entrevista 01**. Erfurt: [*s. n.*], 24 nov. 2021.	Participant in the Initiative for Climate Action Transparency (ICAT) project, an international partnership implemented in Brazil with support from the Brazil Climate Center
Interviewee 02.	**Entrevista 02**. Erfurt: [*s. n.*], 24 nov. 2021.	Held high-level positions in the government of a pioneering Brazilian state in climate policy that has its own registry program. Participated in the activities of the Registry WG.
Interviewee 03	**Entrevista 03**. Erfurt: [*s. n.*], 26 nov. 2021.	IBAMA career employee and designated for participation in the GT de Registro activities, through the MMA
Interviewee 04	**Entrevista 04**. Erfurt: [*s. n.*], 29 nov. 2021.	Server at the Ministry of Budget, Planning, and Management

We employed semi-structured interviews, allowing participants to elaborate on their perceptions and worldviews within the scope of the topic. An outline of the interview guide is below. The same interview guide was used for all participants. However, since interviewees 01 and 04 did not participate directly in the Registration WG, they skipped several questions. In addition to the questions in the Appendix, I also asked these actors to make a basic diagnosis of the capabilities and interests of states in transparency policy and on the integration of subnational entities in federal policy.

Data collection - Semi-structured interview instrument

01.Could you introduce yourself, talking about your background, job, and relationship to the topic?

02. The NAFC was not created with the other PNMC structures. It is the only instance of the PNMC where there is a centrality of the subnational states. Can you tell us how this nucleus was created? Whose leadership was it? Was there an agenda for its creation? How was this proposal received by other actors?

03. MRV is a subject with very technical aspects. What was the level of knowledge of the participating states on the subject? Given this level of knowledge, what kind of interest did they have in this agenda? Were there fears of the consequences of implementation? If so, what were they?

04. How was the discussion format of the WG's work defined? (Was there participation of non-state actors? Was the consensus format productive? Partnerships?

05. What capacities did the states not have? Do they consider that they have obtained them?

06. As the capacity building and discussions took place, did the position of the participating states change? Did new demands emerge? And did the conduction of the activities (aspects such as the organization of the meetings, texts for discussion, etc) change to meet these demands?

07. Was there difficulty in reaching a consensus on any point (objectives, sectors, scope, reporting platform, institutional arrangements)? If yes, how was it solved?

08. There is a strong emphasis on economic instruments. Was there interest from the states in this direction?

09. Was there a discussion regarding the sectors?

10. The final report emphasized the construction of a reporting program, and, besides determining a series of objectives, it established some technical criteria. Other than the objectives, it was a very technical construction. At the same time, it states that the delimitation of competencies is essential for the proper functioning of the program. Why hasn't this discussion advanced?

11. At the same time that the report mentions the support for climate plans that MRV provides, it mentions that the MRV of emissions reduction was not part of the discussion, and places this discussion as the responsibility of SMMARE. However, at one point, the report also mentions the need for convergence with SMMARE development, as there may be coinciding requirements. Was there interest in the emissions reduction agenda? Why was it not addressed? Do the states think they could play a more active role?

12. Why wasn't the report published?

13. It was suggested the creation of other WGs for the discussion of a bottom-up information system, another to discuss technical cooperation agreements for the construction of the emissions registry subsystem, one to discuss the creation of the national reporting program, another for AIR contracting, and another for the discussion of federative competencies. Were these WGs ever created? If not, why not?

14. In your opinion, were the demands of the states met in any way?

15. Were there any subsequent initiatives to discuss the implementation of MRV? If yes, by which actors? What strategies were pursued?

16. In your opinion, what is the role of non-state actors in this discussion? How do they relate to the subnational states?

17. In your opinion, why does the impasse in this agenda remain?