

The Brazilian Amazon States have taken on a larger role during the last years, especially given the current national big picture related to the environmental and climate agenda. Good examples, just to mention a few, of subnational initiatives are coalitions and forums, including the Governors' Climate & Forests task force (GCF task force),² the Consórcio Interestadual da Amazônia Legal,³ and the “Green Recovery Plan” (PRV in its acronym in Portuguese).⁴ This role could also be seen in the record participation of Brazilian state governors at COP26 in Glasgow this year, where they could profit from a direct dialogue with international players and explore paths towards a collaborative agenda. These examples not only reinforce the understanding of subnational governments as valuable spaces of innovation and action, but also demonstrate the responsibility they have taken on in tackling climate change.

However, despite these positive subnational moves, certain contradictions between these efforts in favor of the climate agenda and other state legislation over time should also be mentioned. One of them is Legislative Decree nr. 49 (2016) of Mato Grosso, which approved the use of chains pulled by tractors (known as “correntão”) as a way to “clear” areas for agriculture, until then considered an environmental crime. Another is State Law nr. 8.878/2019 of Pará, which could encourage continued land grabbing on public lands (Brito B., 2019), a persistent problem in the Amazon.

Together, the states of the Brazilian Legal Amazon encompass an area of around 5 million km², 28 million people, and countless environmental services and assets – including the Earth's largest river basin and also its richest biodiversity. It is also a veritable pole of human culture. Thus, being aware of (i) the magnitude and influence of the Amazon for the global climate regime; (ii) the importance of subnational governance policies in tackling climate change; (iii) the persistence of a research gap in global climate governance in the Global South (Fronika and De Freitas, 2019); as well as (iv) the importance of a multi-level governance approach; (v) the longtime partnership between Germany⁵ and Brazil on the environmental agenda; and (vi) the need for cross-border cooperation to properly address the climate crisis, **this analysis aims to provide a simple but powerful overview of the existing legal framework for the subnational climate governance policies of the states of Acre, Amazônia, Amapá, Rondônia, Pará, Mato Grosso, Roraima, Maranhão, and Tocantins.** Providing an overview of which state “rules” address the climate in terms of subnational legislation, I hope to contribute to the climate debates on the Brazilian Amazon and eventually to future international seams of cooperation in this region, especially between Germany and the Brazilian Amazon States.

Some of the guiding questions for the present study include: what is the main legislation on climate governance for each state and what are their principal components? What programs are intended by such laws, and how are international cooperation and engagement provisioned under such subnational policies (if at all)?

²“Inspiring subnational action for forests and climate since 2008,” the GCF task force was created to respond to the fundamental problems of tropical deforestation and climate change. Currently, it comprises 38 member states and provinces (covering more than one-third of the world's tropical forests). See more at <https://www.gcff.org/>.

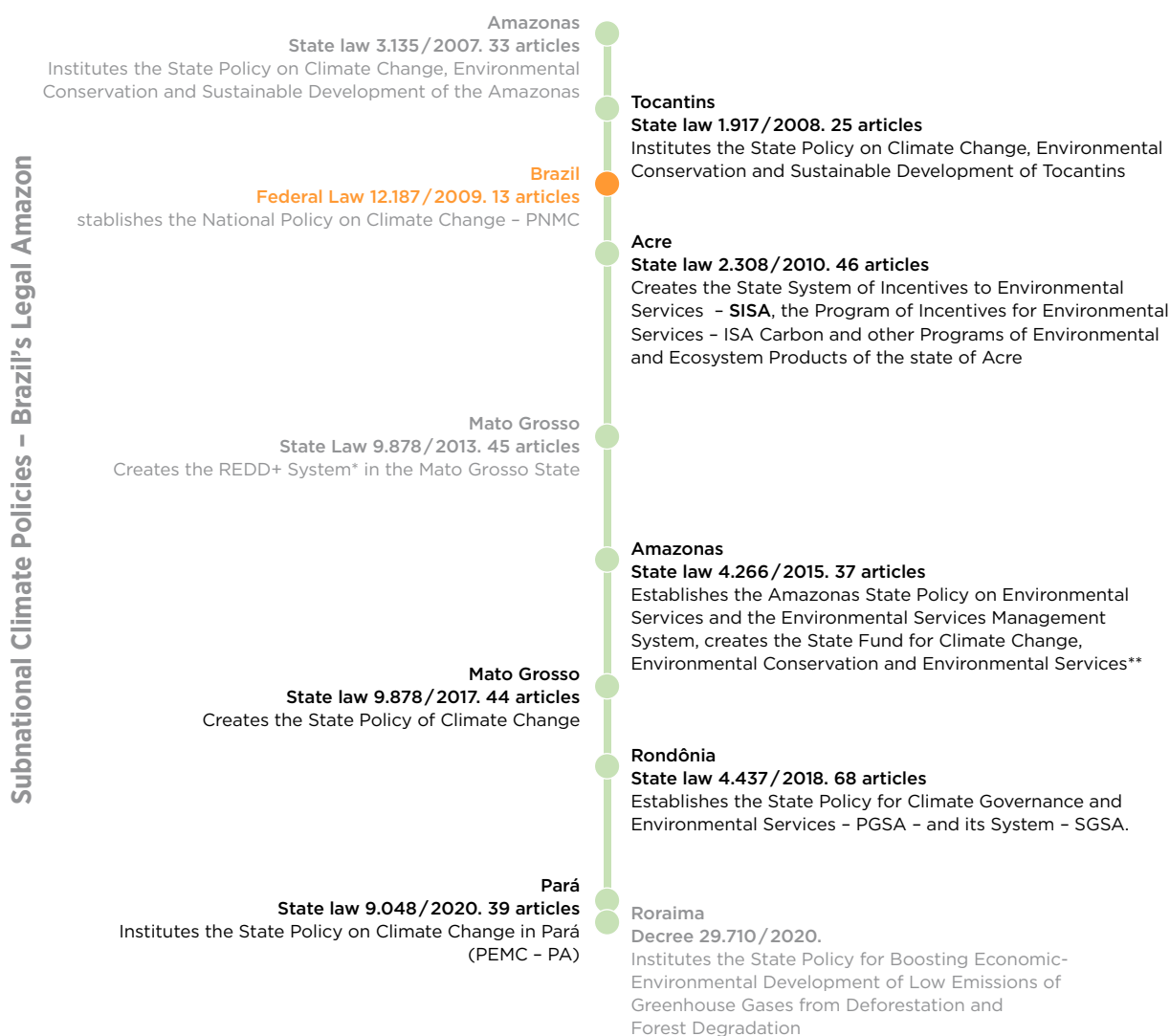
³Formed by Brazil's nine Amazon States, the Consórcio Interestadual de Desenvolvimento Sustentável da Amazônia Legal is an autarchic body that integrates the indirect administration of all member states: its mission is to “accelerate the sustainable development of the Legal Amazon in an integrated and cooperative manner while considering regional opportunities and challenges.” See more at: <https://consorcioamazonialelegal.portal.ap.gov.br/>.

⁴An initiative of the Consórcio Interestadual da Amazônia Legal together with national and international partners, the PRV is “a transition strategy to a green economy for the Amazon region which is compatible with the fight against inequalities, the generation of employment and income, and sustainable economic growth.” See more at <https://consorcioamazonialelegal.portal.ap.gov.br/docs/Plano%20de%20Recuperacao%20Verde%20do%20Consorcio%20Amazonia%20Legal.pdf>.

⁵Germany and Brazil count more than 50 years of cooperation in the field of sustainable development (GIZ, 2020). One of the focuses of their cooperation promoted by the Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ – in Brazil is the protection and sustainable use of the rainforest. Another example of cooperation on the Brazilian Amazon between Germany and Brazil through the Amazon Fund is “the REDD+ mechanism created to raise donations for non-reimbursable investments in efforts to prevent, monitor and combat deforestation, as well as to promote the preservation and sustainable use in (sic) the Brazilian Amazon,” as stated on the website <http://www.fundoamazonia.gov.br/en/home/>. The financial contributions made by the Federal Republic of Germany through KfW Entwicklungsbank and the BNDES (manager of the Amazon Fund) to Brazil from 2010 to 2017 come to a total of US\$ 68,143,672.60.

Overview of the subnational climate policies in Brazil's Legal Amazon

Based on national and regional legislation mapping and a literature review, a good departure point is the following timeline, starting in 2007 (as it dates from the first subnational climate policy for the region) up to the current year, which shows the existing state climate policies in Brazil's Legal Amazon; when they were created; and for what purpose.⁶



* REDD+: a framework created by the UNFCCC Conference of the Parties (COP) to guide activities in the forest sector that reduce emissions from deforestation and forest degradation, as well as the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries (UNFCCC).

** State Law 4.266 also amends State Laws 3.135/2007 and 3.184/2007 of the state of Amazônia.

Although climate change has been addressed by national and subnational legislation in Brazil for more than a decade now, an intensification of the amount and force of this legislation can be perceived from 2015 onwards. This is perhaps a positive side effect of the approval of the National REDD+ Strategy and the ongoing global debates and actions on climate change, as well as multiple pressures to tackle climate change's advance and honor the country's commitments, such as the Paris Agreement (2015), of which Brazil is a signatory.

⁶ It is not my intention to mention all subnational legislation related to climate policy, but rather to select the principal laws. Some legislation, not currently considered the main legislation in terms of governance, but too relevant to go unmentioned, is presented in gray in the timeline. The National Policy on Climate Change is also represented.

Based on the timeline and its use of a geographic perspective, you can interact with the scheme below by clicking on the corresponding box to gain more detailed information about the states and their climate policies. Information is provided on the main objective, institutional arrangements, programs, and where international engagement is possible, as well as which article of the law you can refer to. The meaning of each abbreviation is provided as a footnote.⁷



Source: produced by the author based on the consulted legislation

⁷ TPC: Traditional Peoples and Communities | IP: Indigenous People | ES: Environmental Services | CU: Conservation Unit(s) | Water SC: Water Services Conservation | SISA: State Incentive System for Environmental Services | C&M: Conservation and Monitoring | IC: International Cooperation | CG: Climate Change | COGES: State System Management Committee on Climate Change | CERH: State Water Resources Council | COEMA: State Council for the Environment | FPMAC: Pará Forum on Climate Change and Adaptation | IDEFLOR-Bio: Pará State Institute of Forestry Development and Biodiversity | GHG: Greenhouse Gases | PES: Payment for Environmental Services | EC: Economic Cooperation

Exploring the policies

Examining the subnational state laws presented here, one notices the predominance of a mitigating bias, as opposed to one of adaptation, also reflected in the number of times that such words appear throughout the documents (mainly due to Pará and Rondônia's state laws). Much more than a legal framework, state policies bring to the decision-making process – and to the people and institutions involved in such processes – clear objectives, instruments of implementation and a certain level of predictability, in doing so adding a significant variable to the local climate agenda: legal certainty. This legal component is important for getting stakeholders on board, who now can better understand the plans and “rules of the game” and even feel compelled to not only to hold decision-makers accountable, but to also play their own role in the process. This also applies to international players and, observing the subnational policies in question, all states that could imagine some sort of international cooperation, whether mainly under financial and economic instruments and/or under the “principles” and “guidelines” sections of the laws.⁸

There is no solid legislation in the states of Amapá, Maranhão and Roraima, since, up to now, no state climate policy is in place for them. However, progress has been made to a greater or lesser degree. While not present in the geographic scheme above, it is worth mentioning the efforts made by Amapá, which has a State Climate Change Forum – very recently updated by Decree 2.842/2021 – and which aims to create its Policy and its System on Climate and Environmental Services, PECISA and SECISA, respectively. In Roraima, Decree 29.710/2020 (seen in the previous timeline) has established the State Policy to Boost Economic-Environmental Development of Low GHG Emissions from Deforestation and Forest Degradation. From the text of the Decree, it is clear that this policy was a positive consequence of the fact that Roraima – as all other Brazilian Amazon States – is part of the Governors' Climate and Forests task force. In the case of Maranhão, SAGRIMA⁹ Resolution nr. 2, of December 23, 2014, is worth highlighting. It concerns the State Plan for Mitigation and Adaptation to Climate Change for the Consolidation of a Low Carbon Economy in Agriculture, the “ABC Plan of Maranhão.” This demonstrates that even the states that have no state climate policy are in the process of setting one up or are working with other instruments or co-related plans to address the climate agenda regionally.

Besides providing this broad and insightful overview, this subnational climate policies mapping also explored the explicit **programs** intended by each state law assessed,¹⁰ which were clustered in 10 major groups according to subject.¹¹

Program overview from a subject perspective

Source:
produced by the
author based on
the consulted
legislation

⁸The use of worldwide accepted methodologies on REDD+ or GHG emission calculations is also mentioned on an international scale.

⁹SAGRIMA: Secretariat of Agriculture, Livestock and Fisheries of Maranhão.

¹⁰Although not the State Climate Policy of Mato Grosso, State Law 9.878/2013 was considered in the scheme due to its relevance.

¹¹This clustering exercise has a visualization purpose as the categories may be interrelated, and some overlaps might occur.

From the figure, one notices the predominance of programs related to (payment for) environmental services, mainly carbon – such as the “ISA Carbono” of Acre State, or the REDD+ of Mato Grosso – followed by programs dedicated to “Education, Awareness and Communication” and “Climate Regulation and Monitoring.” Of a total of 29 programs identified, only the states of Tocantins and Pará have the three programs under the category “Others,” which perhaps stands out from the programs most targeted by the other Brazilian Legal Amazon states. In analyzing the legislation, I also noticed that most programs do not have substantial descriptions or guidelines already established in the State Climate Policies, and a considerable amount of variation exists in the level of information provided. While this may leave room for flexibility under the proper regulations, it also brings a natural lack of content that can add a time-consuming component to the implementation process. After all, the states have different priorities when establishing programs to implement their policies on climate change.

A potential – and powerful – ally in advancing the climate agenda and the social and economic development of the Amazon, the bioeconomy concept¹² also received a close look in the present assessment of the state policies in Brazil’s Legal Amazon. The finding suggests a lack of clear integration and untapped potential between the existing climate policies and the bioeconomy, which is partially explained by the fact that the term appeared only more recently on the climate agenda. In fact, of all assessed state climate legislation, only Pará State Law 9.048/2020 and Roraima State Decree 29.710/2020 explicitly mention it. More recently, on October 21, 2021, Pará published Decree 1.943 on its State Bioeconomy Strategy, and Decree 1.942, aiming to regulate § 5º of Article 9 of State Law 9.048/2020 on the Steering Committee of the State System on Climate Change (coGES-clima), related to the institutional arrangements aspect of the System.

Finally, another element was observed in the state climate laws related to “environmental and social safeguards.” Five states address, or at least mention the subject: Mato Grosso State Law 9.878/2013, under Article 15 – refers to the criteria and safeguards that the REDD+ Programs and Project must observe and respect,¹³ and under Article 37, the participation of Indigenous People, Quilombolas and Traditional Communities at all stages and decision-making processes for REDD+ Programs and Projects on their Lands, territories and in other areas legitimately occupied by them. Amazon State Law 4.266/2015 addresses the subject under Articles 4, 6 and 14 which include programs, subprograms, and projects, specifically the program on “Support and Valorization for Traditional Peoples and Communities, Indigenous Peoples and Associated Traditional Knowledge.” For Rondônia, a State Safeguard System is to be implemented under Article 30 of Law 4.437/2018; in Pará, this is mentioned in State Law 9.048/2020 in the section “concepts/definition.”¹⁴ Although not a law – Roraima’s Decree 29.710/2020 broaches the issue in its “objective” section.

Lastly, aiming to provide a complementary overview, the following scheme illustrates the – at least formally¹⁵ – existing forums or similar bodies for popular control and participation as part of the governance system of the state climate policies.

¹² Although the concept of bioeconomy has been defined by different organizations and researchers differently, it was only conceptualized in the context of the Amazon more recently – and there is not a consensus yet – as pointed out by the Bioeconomics Group of “Amazon Concertation” (2021). Based on this reference, the understanding adopted here is that the bioeconomy for the (multiple) Amazon(s) comprises not only socio and biodiversity-based products, but also services, one of them being a valuable contribution to reducing greenhouse gas emissions.

¹³ Art. 15, “VII – respect for the knowledge, rights and ways of life of indigenous populations and family farmers, when applicable.” The paragraph here reads: “REDD+ programs and projects must also respect the criteria and safeguards that may be established by federal legislation, international agreements to which Brazil is a signatory, and the regulation of this law.”

¹⁴ Pará State Law 9.048/2020, as part of its “Guidelines,” Section III, does not mention the term itself, but does mention “the participation of Indigenous Peoples, Quilombolas, and Traditional Peoples and Communities in the continuous protection, conservation and sustainable management of forests (...).”

¹⁵ I use the word “formally” because, despite being legally stipulated, not all forums are currently functional spaces. Further research is needed in this regard.

Participatory bodies and spaces can play a special role in bringing multiple stakeholders to the table. They are also vital in enabling and strengthening components such as transparency, equity, and legitimacy in the decision-making process. It is clear, however, that the mere existence of such mechanisms does not ensure the mentioned components; if they do not properly address and adhere to local realities, they can even lead to demobilization and disenchantment among those once involved.¹⁶ Although a topic that demands sensitivity and attention, the participation and engagement of stakeholders beyond the government sphere is certainly an element that should be pursued and incorporated while planning and executing resilient public policies.

TOCANTINS	AMAZONAS	MATO GROSSO	ACRE	MARANHÃO	RONDÔNIA	PARÁ	AMAPÁ	RORAIMA
State Forum on Climate Change and Biodiversity Created by Decree 3.007/2007.	Amazon Forum on Global Climate Change, Biodiversity and Environmental Services Decree 28.390/2009, & according to State Law 3.135/2007.	Mato Grosso Forum on Climate Change State Law 9.111/2009. Composition established by Decree 2.197/2009.	State Commission for Validation and Monitoring of SISA (CEVA) State Law 2.308/2010, Art.12.	Maranhão Climate Change Forum (FMMC) State law 10.161 /2014. (Decree 22.735/2006 was revoked).	State Forum on Climate Change – (FEMC-RO) State Law 4.437/2018. Established by Decree 24.497/2019, which revokes the Decree 16.232/2011.	Pará Forum on Climate Change and Adaptation Decree 254/2019. (Decree 518/2012 was revoked)	Amapá Forum on Climate Change and Environmental Services (FAMCSA-AP) Decree 2.842/2021. (Decree 5.096/2013 was revoked)	–

Participatory bodies – Forums or other popular control mechanisms

Source: produced by the author based on the consulted legislation

Final considerations

In sum, the stage of maturity of the subnational climate policy governance of the 9 states comprising Brazil's Legal Amazon varies, both from a temporal and a content perspective. The availability of updated communication channels and information related to the climate policy advances were also perceived as unequal and, in general, an area that could be improved.


There is still a long and challenging path ahead towards climate adaptation and mitigation, but all states have started to recognize their important role in it and have embarked upon the journey. As observed by Jörgensen et al. (2015), subnational initiatives may not be enough to address climate change alone – nor are they expected to – but they may be crucial in creating transformative ideas that can spread to other layers of governance and tackle climate change in a more structured and capillary way.

¹⁶ As observed in the case of the city São Felix do Xingu, Pará, studied by Brandão et al. (2020).

There is much room for further research and deeper analysis on the subnational climate policies of the Brazilian Amazon. Important aspects to explore would be the real level of implementation of the above-mentioned programs of the state laws, the functionality of the mechanisms of popular control, and the legal components that enable cross-border cooperation for the region. As a work in progress, I expect to come back to some of these reflections and findings in a further text.

For comments and considerations, please feel free to write to

luiza.montoyaraniero@iass-potsdam.de.

I would also be happy to connect via LinkedIn  (Luiza Montoya Raniero).

Acknowledgment

I would like to immensely thank my colleague IASS research associate Bernardo Jurema, and Dr. Carlos Eduardo Rittl Filho for their valuable input and insightful feedback, as well as Dr. Maria Cecilia Oliveira, Matthias Tang, the IASS Potsdam and the AvH Foundation for all their support in carrying out this research. I also want to thank Clay Johnson for his English review.

References

- Acre.** Law 2.308, from October 22, 2010. The State System of Incentives for Environmental Services - SISA, the Program of Incentives for Environmental Services - *ISA Carbono* and other Programs of Environmental and Ecosystem Products of the State of Acre. Rio Branco, AC.
- Acre.** Complementary Law 300 from July 09, 2015. Secretary of State of the Civil House. Rio Branco, AC.
- Amapá.** Decree 2.842 from August 21, 2021. Amapá Forum of Changes Climate and Environmental Services (FAMCSA). Macapá, AP. Available at <https://sigdoc.ap.gov.br/public/verArquivo.jsf?token=0416cdf9f8ae7516beeda1c3d8a8a35f>.
- Amapá.** Decree 5.096 from August 27, 2013. Amapá Forum on Global Climate Change and Environmental Services (revoked by Decree 2.842/2021). Macapá, AP. Available at <https://sigdoc.ap.gov.br/public/verArquivo.jsf?token=c9c4a351099500abbfb2e1951b72d72f>.
- Amazonas.** Decree 28.390, from February 17, 2009. The Amazon Forum on Global Climate Change, Biodiversity, and Environmental Services. Manaus, AM. Available at https://cetesb.sp.gov.br/proclima/wp-content/uploads/sites/36/2014/08/decreto_28390_170209_am.pdf.
- Amazonas.** Law 4.266, from December 1, 2015. Amazonas State Policy on Environmental Services and the Environmental Services Management System. Manaus, AM. Available at: https://online.sefaz.am.gov.br/silt/Normas/Legisla%E7%E3o%20Estadual/Lei%20Estadual/Ano%202015/Arquivo/LE%204.266_15.htm.
- Amazonas.** Law 3.184, from November 13, 2007. Amendment to Law 3.135, of June 5, 2007. Available at <https://www.legisweb.com.br/legislacao/?id=119991>.
- Amazonas.** Law 3.135, from June 05, 2007. State Policy on Climate Change, Environmental Conservation, and Sustainable Development of the Amazonas. Manaus, AM. Available at <https://www.legisweb.com.br/legislacao/?id=119995#:~:text=Institui%20a%20pol%C3%ADtica%20estadual%20sobre,amazonas%2C%20e%20estabelece%20outras%20provid%C3%Aancias>.
- Amazon Concertation, Bioeconomy Group.** Roberto S. Waack, Renata Piazzon, and Inaiê Santos, Instituto Arapyaú; Cláudio Pádua, Instituto Bionegócios. Marcello Brito, Associação Brasileira do Agronegócio (Abag); Tatiana Schor, Secretaria de Estado de Desenvolvimento Econômico, Ciência, Tecnologia e Inovação do Amazonas (SEDECTI-AM); Mariano Cenamo, Instituto de Conservação e Desenvolvimento Sustentável da Amazônia (Idesam). O Valor da diversidade para a bioeconomia. Página 22 magazine from February 1, 2021. Available at <https://pagina22.com.br/2021/02/01/o-valor-da-diversidade-para-a-bioeconomia/>.
- Brandão F, Piketty M-G, Pocard-Chapuis R, Brito B, Pacheco P, Garcia E, Duchelle AE, Drigo I and Peçanha JC (2020).** Lessons for Jurisdictional Approaches from Municipal-Level Initiatives to Halt Deforestation in the Brazilian Amazon. *Front. For. Glob. Change* 3:96. doi: 10.3389/ffgc.2020.00096.
- Brasil.** Law 12.187, from December 29, 2009. National Policy on Climate Change. Brasília, DF. Available at http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12187.htm.
- Brenda Brito.** Nota Técnica sobre o Projeto de Lei Estadual n.º 129/2019 que altera as regras para regularização fundiária no Pará. Belém: Imazon. Available at <https://imazon.org.br/publicacoes/nota-tecnica-sobre-o-projeto-de-lei-estadual-no-129-2019-que-altera-as-regras-para-regularizacao-fundiaria-no-para/>.
- Carlos A. Nobre.** The Amazon Third Way Initiative/Amazonia 4.0: Radically Changing the Sustainable Development Paradigm for the Amazon. UNESCO, 2018. Available at <http://creativecommons.org/licenses/by-sa/3.0/igo/>.

Fronika Claziena Agatha de Wit & Paula Martins de Freitas. Global Climate Adaptation Governance in the Amazon through a Polycentric Lens. doi: <http://dx.doi.org/10.1590/0034-7329201900207>. Revista Brasileira de Política Internacional, 62 (2): e007, 2019.

Fundo Amazônia. Donations. Available at <http://www.fundoamazonia.gov.br/en/donations/>.

GIZ, Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH. GIZ profile, 2020. Available at <https://www.giz.de/en/aboutgiz/profile.html>.

IPEA, Instituto de Pesquisa Econômica Aplicada. O que é? Amazônia Legal. Desafios do Desenvolvimento. 2008. Ano 5. Edição 44 - 08/06/2008. Available at https://www.ipea.gov.br/desafios/index.php?option=com_content&id=2154:catid=28.

Kirsten Jörgensen, Anu Jogesh & Arabinda Mishra (2015) Multi-level Climate Governance and the Role of the Subnational Level, Journal of Integrative Environmental Sciences, 12:4, 235-245, doi: 10.1080/1943815X.2015.1096797.

Maranhão. Law 10.161 from November 26, 2014. Maranhão Climate Change Forum (FMMC). São Luís, MA. Available at <https://legislacao.sema.ma.gov.br/arquivos/1574445874.pdf>.

Mato Grosso. Complementary Law 582 from January 13, 2017. State Policy on Climate Change. Cuiabá, MT. Available at <http://app1.sefaz.mt.gov.br/0425762E005567C5/9733A1D3F5BB1AB384256710004D4754/54105124ABB50E4A842580AA005CE79B>.

Mato Grosso. Law 9.878 from January 7, 2013. State System for Reducing Emissions from Deforestation and Forest Degradation, Conservation, Sustainable Forest Management and Increase in Forest Carbon Stocks | REDD+ in the State of Mato Grosso. Cuiabá, MT. Available at <https://www.legisweb.com.br/legislacao/?id=249723#:~:text=Cria%20o%20Sistema%20Estadual%20de,Grosso%20e%20d%C3%A1%20outras%20provid%C3%AAs>.

Mato Grosso. Decree 2.197 from October 22, 2009. Composition of the Mato Grosso Forum on Climate Change. State Secretary of Environment. Cuiabá, MT. Available at <https://www.jusbrasil.com.br/diarios/7382134/pg-6-diario-oficial-do-estado-do-mato-grosso-doemt-de-22-10-2009>.

Mato Grosso. Law 9.111 from April 15, 2009. Mato Grosso Forum on Climate Change. Cuiabá, MT. Available at <https://www.al.mt.gov.br/storage/webdisco/leis/lei-9111-2009.pdf>.

Pará. Decree 1.943 from October 21, 2021. State Bioeconomy Strategy of Pará. Belém, PA. Available at <https://www.jusbrasil.com.br/diarios/1152794006/doepa-22-10-2021-pg-4>.

Pará. Decree 1.942 from October 21, 2021. Steering Committee of the State System on Climate Change (coGES-clima). Belém, PA. Available at <https://www.jusbrasil.com.br/diarios/1152794006/doepa-22-10-2021-pg-4>.

Pará. Law 9.048 from April 29, 2020. State Policy on Climate Change of Pará (PEMC/PA). Belém, PA. Available at <https://www.bombeiros.pa.gov.br/wp-content/uploads/2020/08/LEI-N%C2%B0-9.048-DE-29-DE-ABRIL-DE-2020.pdf>.

Plano de Recuperação Verde da Amazônia Legal - PRV. Resumo Executivo. Consórcio Inter-estadual de Desenvolvimento Sustentável da Amazônia Legal. July 2021. Available at <https://www.sema.ma.gov.br/files/2021/07/Plano-de-Recuperac%CC%A7a%CC%83o-Verde-PRV-Julho-2021.pdf>.

Rondônia. Law 4.437 from December 17, 2018. State Policy on Climate Governance and Environmental Services - PGSA. Porto Velho, RO. Available at <https://www.legisweb.com.br/legislacao/?id=372132>.

Rondônia. Decree 24.497 from November 27, 2019. State Forum on Climate Change. Porto Velho, RO.

Roraima. Decree 29.710 from December 09, 2020. State Policy for Boosting Economic-Environmental Development of Low Emissions of Greenhouse Gases from Deforestation and Forest Degradation. Boa Vista, RR. Available at <https://www.legisweb.com.br/legislacao/?id=405863>.

Tocantins. Decree 4.550 from May 11, 2012. State Forum on Climate Change. Palmas, TO. Available at <https://central3.to.gov.br/arquivo/522210/>.

Tocantins. Decree 3.007 from April 18, 2007. State Forum on Climate Change and Biodiversity (revoked by Decree 4.550/2012). Palmas, TO. Available at https://cetesb.sp.gov.br/proclima/wp-content/uploads/sites/36/2014/08/DECRETO-No-3.007-de-18-de-abril-de-2007_TO.pdf.

Tocantins. Law 1.917 from April 17, 2008. State Policy on Climate Change, Environmental Conservation and Sustainable Development of Tocantins. Available at <https://www.legisweb.com.br/legislacao/?id=171295>.

UNFCCC. United Nations Framework Convention on Climate Change. What is REDD+? Available at <https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd>.