



# Jurisdictional approaches to reducing emissions from deforestation and forest degradation in Brazil: Why do states adopt jurisdictional policies?

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## ABSTRACT

Although the role of subnational governments in multi-level climate governance is recognized by scholars and policymakers, we still know little about whether and why some subnational jurisdictions in the Global South decide to engage in decentralized climate action. This article yields new insights on this question by explaining variations in the decision of Brazilian states to establish legal frameworks for jurisdictional REDD+, enabling them to receive transnational climate finance, in the early stages of the emergence of REDD+ in Brazil between 2007 and 2017. We draw on key informant interviews with policy entrepreneurs and actors to understand the roles played by (1) the transnational pathways of influence associated with the regime complex for REDD+ and (2) the strategies adopted by state-level policy entrepreneurs in subnational REDD+ readiness policy processes in Brazil in five case studies (Amazonas, Acre, Mato Grosso, Pará and Amapá). According to respondents, credible market incentives were the key influence for state governors to adopt a jurisdictional framework to channel REDD+ funds, but transnational norms and material assistance played important mediating roles. The perceived credibility of market incentives was influenced by: (1) the presence of policy entrepreneurs at the state level; (2) the timing of strategies employed by policy entrepreneurs; (3) the policy beliefs held by the governor regarding environmental issues; and (4) evidence regarding availability of REDD+ finance for states.

## 1. Introduction

While multilevel climate governance in the context of federalism has attracted significant attention from scholars, less is known about the factors and processes that explain why some subnational governments in the global south decide to engage in decentralized climate action (Schreurs, 2008; Anderton and Setzer, 2017). The diffusion of policies for Reducing Emissions from Deforestation and Forest Degradation (REDD+) across developing countries provides a rich empirical context for understanding the decision of subnational governments to assume a leadership role in the fight against climate change (Korhonen-Kurki et al., 2015).

Created within the United Nations Framework Convention on Climate Change (UNFCCC), the REDD+ mechanism aims to compensate developing countries for their performance in reducing forest-based carbon emissions (Pistorius, 2012). Since 2007, around 60 developing countries have pursued REDD+ readiness efforts, which consist of a multiyear process of policy reform and capacity-building that is meant to result in a legal framework and a set of institutional and technical

capabilities that allow states to receive and spend transnational REDD+ funds (Dunlop and Corbera, 2016). Alongside efforts to operationalize REDD+ at the national level, decentralized REDD+ programs and pilot initiatives have been also pursued by many subnational jurisdictions, either as intermediate steps towards national programs or independently of them (Busch and Amarjargal, 2020).

Because forest loss is the principal source of carbon emissions in Brazil, REDD+ has been prominent in the country's climate policy debates. Yet there have been significant variations in the pace with which federal and state governments have pursued the domestic operationalization of REDD+ across multiple levels of governance. A pivotal moment in Brazil's commitment to REDD+ happened in 2008, when a bilateral agreement with Norway was signed pledging that up to \$1 billion would be paid to Brazil through the Amazon Fund for reducing emissions from forest-based sources. By 2015, Brazil had adopted a national REDD+ strategy, and in 2018 the country began to receive results-based payments from the Green Climate Fund's pilot programme for REDD+.

Prior to these developments at the federal level however, the states of

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Acre, Amazonas, and Mato Grosso enacted their own decentralized jurisdictional REDD+ legal frameworks in 2007, 2010, and 2013, respectively (Lavratti, Tejeiro, and Stanton, 2014; Alencar et al., 2012). Acre and Mato Grosso concluded independent agreements to receive results-based payments through the German Development Bank's (KfW) REDD+ Early Movers program.<sup>1</sup> While these three states adopted decentralized REDD+ policies in early stages of the emergence of REDD+ in Brazil from 2007 to 2017, the policy efforts of other Amazonian states (Pará, Amapá, Maranhão, Tocantins, Roraima, and Rondônia) generated comparatively modest outcomes during this period. While they discussed the possibility of adopting jurisdictional REDD+ policies and experimented with pilot projects, they did not adopt a legal framework that would enable them to receive and manage external REDD+ funds.

More recently, key international developments in jurisdictional REDD+ finance have prompted more action from Brazilian states, such as the decision made by the International Civil Aviation Organization (ICAO) in 2020 to accept jurisdictional REDD+ carbon credits in its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA); the Lowering Emissions by Accelerating Forest finance (LEAF) Coalition's pledge in 2021 to mobilize \$1 billion for jurisdictional initiatives to curb deforestation; and decisions taken at the Conference of the Parties (COPs) 26 and 27 to support the development of market-based solutions under Article 6 of the Paris Agreement. The LEAF Coalition's pledge has been particularly influential: eight Amazonian states presented proposals in 2021 to initiate the qualification process for receiving funds from the scheme.<sup>2</sup>

This article seeks to contribute new insights explaining why and how the states of Amazonas, Acre, and Mato Grosso engaged in decentralized climate action by adopting jurisdictional REDD+ policies prior to 2017, when other states carrying out REDD+ readiness efforts, Pará and Amapá, did not do so. To explain this variation in subnational climate leadership, we bring together literatures addressing the role of subnational governments in multilevel climate governance ((Rabe, 2008; Anderton and Setzer, 2017) and the influence of transnational policy processes and domestic policy entrepreneurs (Bernstein and Cashore, 2012; Jodoin, 2017). We engaged in text analysis of policy documents and conducted semi-structured interviews grounded in a coding approach that combined both deductive and inductive logics (Saldana, 2021). A systematic application of this approach allowed us to compare perceptions of key actors who participated in REDD+ policy processes in the three states that adopted decentralized REDD+ policies, and the two states that considered, but declined, to adopt such policies in the same timeframe. Our findings yield important insights regarding whether and how subnational jurisdictions in the global south decide to adopt and support decentralized climate policies within a federal system, a topic that has received limited attention in the existing literature.

## 2. Analytical framework: understanding decentralized climate policy entrepreneurship in a transnational context

While there have been other policies introduced by Brazilian states that address drivers of deforestation and forest degradation, our focus lies in understanding why and how some states decided to adopt decentralized REDD+ policies that made it possible for them to receive transnational climate finance. The particular emphasis in this article is thus on bills drafted by governors, and adopted by state legislatures, that provide the legal framework that enables a subnational government to receive and spend transnational REDD+ funds.

To account for variations in the outcomes of subnational REDD+ readiness processes in Brazilian states, we focus on the role that policy entrepreneurs play in engaging strategically with transnational influences to shape a state's decision to pursue a jurisdictional REDD+ policy. The starting point of our analytical framework focuses on the ability of subnational governments in federations to develop and implement decentralized climate policies (Galarraga, Gonzalez-Eguino, and Markandya, 2011; Anderton and Setzer, 2017). Such "bottom-up" efforts can complement the climate policies adopted by a federal government (Rabe, 2008) or compensate for a lack of climate action at the federal level (Derthick, 2010). Subnational climate leadership can offer several advantages, ensuring that climate solutions are tailored to the social, economic, and environmental circumstances of a subnational jurisdiction, enhancing their legitimacy and acceptability within the local population, and generating lessons about the most effective ways of reducing carbon emissions or adapting to a changing climate (Rabe, 2008; Schreurs, 2008; Stadelmann-Steffen and Stefan Rieder 2019).

Due to concerns over maintaining and attracting investments and jobs in carbon-intensive economic sectors, scholars have posited that the competitive economic dynamics in a federation are not generally favourable to unilateral and decentralized climate action at the subnational level (Harrison and Kathryn, 2013; Gordon, 2015). Instead, these scholars argue that subnational governments have strong incentives for shirking on their commitments to combatting climate change and free riding on the efforts of their peers, leading to a "race to the bottom" in climate mitigation (Woods, 2006; Kunc and Shogren, 2005). The disincentives to decentralized climate action may be even more pronounced in developing countries with resource-dependent economies as efforts to adopt climate policies that address carbon emissions are likely to be hindered by the enduring influence of extractivist paradigms and political coalitions, institutional corruption, and global supply chains (Veltmeyer and Petra, 2014; Robbins, 2000).

However, this scepticism has been belied by the significant climate leadership exhibited by the many subnational governments that have engaged in decentralized climate action around the world and established policy networks and partnerships with their peers in their federations and abroad (Rabe, 2008; Schreurs, 2008; Jørgensen and Anu Jogesh, 2015; Galarraga, Gonzalez-Eguino, and Markandya, 2011; Anderton and Setzer, 2017). The literature has identified multiple factors that makes this sort of subnational climate leadership more likely, including: sufficient policy autonomy provided to a subnational government within the constitutional division of powers; an economy that is less dependent on carbon intensive activities; the availability of resources and capabilities that make it possible to seize a first mover advantage in the adoption of clean technologies and the development of low-carbon products and services; the presence of existing policy norms and coalitions favourable to environmental protection; and the political preferences of voters and the partisan affiliation of governments (Schreurs, 2008; Harrison and Kathryn, 2013; Rabe, Roman, and Dobelis, 2005).

While underlying differences in the economic costs and opportunities associated with climate action, the availability of resources and capacities, and the path-dependent dynamics of a policy system may increase the likelihood of subnational climate leadership, they do not provide a full explanation of whether and how subnational governments decide to adopt decentralized climate policies. This is due, in large part, to the complex distributive struggles that tend to arise in climate policymaking, including, for instance, in the context of REDD+. Because it addresses salient policy issues relating to forests, natural resources, and Indigenous and community rights, REDD+ readiness policymaking has given rise to conflicts between domestic public and private policy actors and coalitions pursuing diverse objectives at the intersections of environmental, social, and economic governance (Di Gregorio et al., 2015; Minang and Van Noordwijk, 2014). The operationalization of REDD+ in a jurisdiction involves the complex task of developing new policies, institutions, and capabilities in a manner that resolves longstanding

<sup>1</sup> KfW, REDD+ Early Movers (REM) Programme, <https://www.kfw-entwicklungsbank.de/International-financing/KfW-Development-Bank/Topics/Climate/REDD/>

<sup>2</sup> Lowering Emissions by Accelerating Forest finance (LEAF) Coalition, <https://leafcoalition.org>

conflicts over how forests should be managed and for whose benefit (Minang and Van Noordwijk 2014; Moutinho et al., 2015; Guerra and Moutinho, 2020). As a result, the successful pursuit of REDD+ readiness efforts has hinged on the skilled efforts of policy entrepreneurs that have taken advantage of the opportunities generated by REDD+ readiness efforts to pursue transformative policy change (Conceição et al., 2015).

Hence, our approach to understanding variations in the decentralized REDD+ policymaking of Brazilian states goes beyond contextual factors to emphasize the influence of the transnational policy process for REDD+ (Bernstein and Cashore, 2012) and the strategies of domestic policy entrepreneurs (Jodoin, 2017) in subnational climate governance. Since 2007, a diverse array of multilateral institutions, bilateral aid agencies, NGOs, and corporations have established networks and programs to provide knowledge, finance, and technical assistance in support of the domestic operationalization of REDD+ across the global south (Corbera and Schroeder, 2011). We draw on Bernstein and Cashore, who identify four pathways through which transnational policy actors have sought to influence domestic REDD+ policy processes: international rules, norms, markets, and direct access. The international rules pathway refers to hard and soft sources of international law (Bernstein and Cashore, 2012, 589–590) that set the requirements for REDD+ readiness, such as the decisions of the UNFCCC or the conditions adopted by multilateral institutions such as the World Bank (Recio, 2018). International norms are intersubjective understandings that provide standards for appropriate behaviour and that spread through processes of socialization and acculturation (Keck and Sikkink, 1998, 891–893). Influential norms in the context of REDD+ have related to its triple-win potential for forests, climate mitigation, and green growth or the importance of social and environmental safeguards (Jodoin, 2019). The markets pathway captures the role economic incentives for REDD+ may play in altering preferences and behaviours of governments and corporations (Bernstein and Cashore, 2012, 593). Finally, the direct access pathway encompasses the influence exerted by the plethora of REDD+ readiness funding, technical assistance and capacity-building activities led by governments, international organizations, NGOs, and corporations (Bernstein and Cashore, 2012, 593).

Jodoin (2017) argues that although these transnational pathways have played an important role in launching REDD+ worldwide, the nature of policy change and innovation associated with REDD+ is ultimately mediated by domestic factors and actors, as in other fields of public policy (Steinberg, 2001). Drawing on the literature on policy entrepreneurship (Mintrom and Norman, 2009), he identifies four strategies through which domestic policy actors may harness transnational influences to sway domestic policy processes relating to REDD+. First, global efforts to support the development of REDD+ in developing countries may open a window of opportunity that can be seized by domestic policy actors in pursuit of policy change (Jodoin, 2017, 1426). Second, domestic actors may draw on international norms associated with REDD+ to “reframe” policy problems and solutions relating to forests, natural resources or land-use (Jodoin, 2017, 1427). Third, domestic policy actors may draw on opportunities provided by global REDD+ readiness efforts, including international norms, economic incentives or material assistance, to establish new coalitions at the domestic level (Jodoin, 2017, 1428). Finally, domestic policy actors may use the launch of REDD+ readiness efforts to alter policy venues by shifting a policy issue to an institution or level of governance offering a more favourable environment for policy change (Jodoin, 2017, 1429).

We combined these two approaches to develop a model of REDD+ policy processes within Brazilian states in which local policy entrepreneurs engage strategically with transnational pathways of influence to contribute to the states’ decision to pursue a jurisdictional REDD+ policy. Our model is anchored in an understanding of the constitutional design of the Brazilian federal system and the governance structures within which transnational influences and domestic policy entrepreneurs operate. According to the Brazilian Constitution, the federal government has the authority to legislate on general rules for forest

protection and most environmental matters.<sup>3</sup> Absent federal legislation leaves states with full authority to legislate about forests. States’ constitutions determine that any policies granting new attributions to or altering structures of state agencies, which is the case for a REDD+ jurisdictional policy, must be initiated by a bill drafted by the governor.<sup>4</sup> Hence in our model, the governor holds the final authority to decide whether or not to pursue a jurisdictional policy. As a result, our understanding of the influence of existing policy norms on REDD+ policy development in a state focuses on the governor’s policy beliefs, a theoretical concept developed by Sabatier and Jenkins-Smith (1993) that proposes that individuals “tend to filter perceptions through their belief system”, adopting or ignoring information contrary to their beliefs, and easily accepting information that confirms them (Weible and Sabatier 2007). In line with research demonstrating the path-dependent influence of existing policy norms in subnational environmental policymaking (Conceição et al., 2015), we posit that the governor’s policy beliefs play a key role in determining their amenability to transnational influences and the efforts of policy entrepreneurs.

The particular emphasis in this article is on bills drafted by governors, and adopted by state legislatures, that enable the subnational government to receive transnational funds. While there have been other policies introduced by Brazilian states that offer incentives of a similar nature,<sup>5</sup> the aim of our analysis is to understand the various ways in which transnational processes may be harnessed by actors trying to influence the governor into adopting a REDD+ jurisdictional policy, or by the governor herself. We define states as having achieved transnationally oriented jurisdictional REDD+ when a legal framework for receiving and channelling REDD+ funds has been adopted into law by the state House of Representatives. Fig. 1.

### 3. Methods

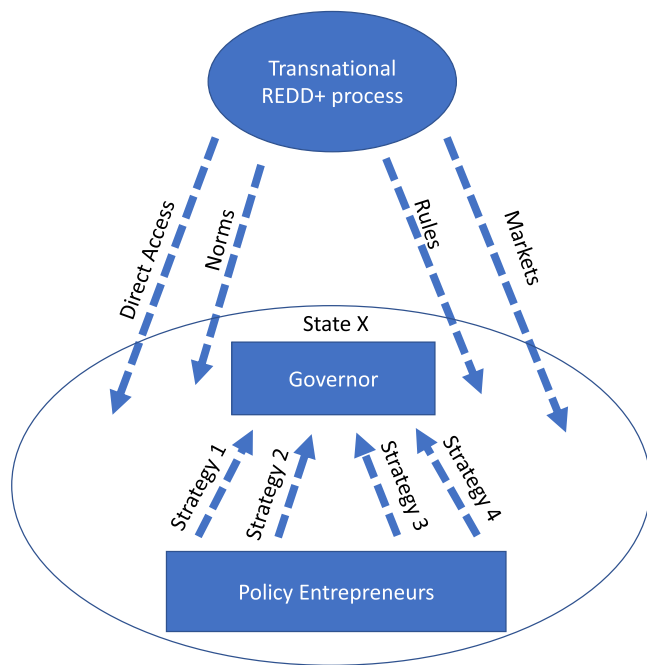
Our empirical strategy consisted of selecting case studies, collecting qualitative data, subsequently coding and analysing the text. First, we selected five case studies: three “positive” cases, and two “negative” cases (Mahoney and Goertz, 2004). The cases of the three states that enacted REDD+ policies between 2007 and 2017 (Amazonas, Acre, and Mato Grosso) were selected because those were instances where the outcome of interest (adoption of a jurisdictional policy) was observed. Pará and Amapá were two states that clearly considered a jurisdictional policy during that period, but the idea was not translated into a legal framework enabling the states to receive funding directly from transnational sources during our study’s timeframe. At least one step of the policy process that took place in positive cases (the discussion of a state level REDD+ policy in a multi-stakeholder forum) also took place in Amapá and Pará, but the outcome was different. These circumstances indicate that adopting a jurisdictional policy was possible in Pará and Amapá, but the event did not occur in that timeframe, making these cases suitable to be used as negative cases according to the “Possibility Principle” (Mahoney and Goertz, 2004).<sup>6</sup> We emphasize that our data collection was restricted to events that happened in the time period between 2007 and 2017. Hence, our analysis is focused on comparing

<sup>3</sup> Federal Constitution of Brazil, Article 24, VI.

<sup>4</sup> Amazonas State Constitution, Article 33, II, “e”; Acre State Constitution, Article 54, § 1o, VI, Mato Grosso State Constitution, Article 39, Parágrafo Único, II, “d”; Pará State Constitution, Article 105, II, “d”; Amapá State Constitution, Article 104, Parágrafo Único, V.

<sup>5</sup> Different policies implemented in our negative cases contain elements of a jurisdictional REDD+ policy. The Green Municipalities Program and the Green ICMS policies in the state of Pará, for example, created important incentives for municipalities to avoid deforestation and to preserve forested areas.

<sup>6</sup> Mahoney and Goertz (2004) conceptualized the “Possibility Principle” to aid researchers in selecting negative cases. Only cases where the outcome of interest is *possible* should be included as negative cases. Cases where the outcome is *impossible* should be deemed irrelevant for the comparison.



**Fig. 1.** Domestic strategies of policy entrepreneurship. Strategy 1: Seize windows of opportunity; Strategy 2: Reframe policy problems; Strategy 3: Form coalition; Strategy 4: Shift Venue.

states that had, or had not, exerted decentralized climate leadership by adopting a jurisdictional REDD+ policy by 2017.

Second, we conducted 46 semi-structured interviews with key individuals involved in policy processes in each state, between July and August of 2015, July and August of 2017, and May of 2018. We selected an initial set of interviewees based on their involvement with and knowledge of the REDD+ discussions, then we used snow-balling to find additional interviewees (Tansey, 2007). We interviewed individuals with different perspectives on the processes to obtain a balanced variety of standpoints: 21 individuals from NGOs and civil society organizations, 20 state government officials, and 2 industry representatives.<sup>7</sup> We also collected primary and secondary documental sources relating to REDD+ policy processes in the states (legislative procedures, minutes of meetings, public audiences, etc.) and transnational support for REDD+ readiness in Brazil, in an effort to triangulate the information collected during the interviews. Finally, we transcribed the interviews, and coded them and the documents using a mix of deductive categories subsumed from our analytical framework, and an inductive category that emerged from analyzing the data (Di Gregorio et al., 2020; Saldana, 2021). The [Supplementary Materials](#) contain our codebook, questionnaire, and further details on how they were conceived.

#### 4. Analysis

Since the inception of REDD+ in the UNFCCC, the Brazilian federal government has been hesitant about whether and how to support the mechanism, while Amazonian states were eager to seize the opportunities presented (Abranches, 2014). Some states pursued their own jurisdictional initiatives and pilot projects without the direct support of the federal government, and at times in conflict with the official Brazilian position in UNFCCC negotiations. In this section we present our five case studies followed by an analysis of the data and discussion of

results.

##### 4.1. Amazonas

“If we had a different governor, or if [key policy entrepreneur] were not here, if the team had not bought into the idea, then the policy would have died.”<sup>8</sup>

The origins of Amazonas’ jurisdictional REDD+ policy can be traced to 2003, when a new governor took office.<sup>9</sup> The governor appointed a secretary of Environment and Sustainable Development, the head of the state environmental agency, who actively pursued REDD+ in the state.<sup>10</sup> Supported by local academics and NGOs, such as the Institute of Conservation and Sustainable Development of the Amazon (IDESAM), the Secretary wanted to integrate a state PES scheme into a future compliance carbon market linked to the UNFCCC and other regulated and voluntary markets, which he perceived as an opportunity to attract funds to the state.<sup>11</sup>

The governor and secretary were convinced the program would eventually be funded by international markets. This expectation was mentioned as a major factor in the program’s adoption,<sup>12</sup> suggesting a strong influence of the markets pathway. Interest in REDD+ was also motivated by the notion that the region had to move away from historical economic incentives for occupation based on deforestation.<sup>13</sup> The governor, secretary, and most of participants involved in crafting the policy, consistently reframed the prevailing discourse around deforestation<sup>14</sup> to instead emphasize the importance of viewing standing forests as assets and of using market-based instruments to alter economic incentives to deforest.<sup>15</sup> These views mirrored discourses forwarded by transnational REDD+ proponents, indicating the influence of the norms pathway. Early studies and a legal consultancy that supported the design of Amazonas’ climate change policy were funded by transnational actors,<sup>16</sup> revealing the influence of the direct access pathway.

Consultations with civil society began in 2005, resulting in a draft bill that became the Amazonas State Climate Change Policy (State Law n. 3.135/2007), enacted in 2007 without any opposition in the state legislature.<sup>17</sup> It contained a provision for implementing a PES program

<sup>8</sup> Interview with NGO Representative, Manaus, Amazonas, June 2017 (Interview 3), p. 6.

<sup>9</sup> Interview with Government Representative, Manaus, Amazonas, June 2017 (Interview 1); Interview 3, p. 6; Interview with NGO Representative, Manaus, Amazonas, June, 2017 (Interview 5), p. 2; Interview with NGO Representative, Manaus, Amazonas, June, 2017 (Interview 6), p. 2; Interview with NGO Representative, Skype Call, August 2017 (Interview 7), p. 2; Interview with NGO Representative, Manaus, Amazonas, July 2017 (Interview 10), p. 2.

<sup>10</sup> Interview 1; Interview with NGO Representative, Manaus, Amazonas, June 2017 (Interview 2), p. 3; Interview 5, p. 2; Interview 6, p. 2; Interview with Government Representative, Skype Call, August 2015 (Interview 11), p. 1; Viana (2010).

<sup>11</sup> Interview 1; Amazonas (2007).

<sup>12</sup> Interview 1; Interview 2, p. 3; Interview 3 pp. 3–4, 6; Interview with NGO Representative, Manaus, Amazonas, July 2017 (Interview 4), p. 5; Interview 5, pp. 3–4; Interview 6, pp. 4, 8; Interview 7, p. 5; Interview with Government Representative, Skype Call, August 2017 (Interview 8), p. 3; Interview 11, pp. 2–3; Amazonas (2007).

<sup>13</sup> Interview 1; Viana (2010).

<sup>14</sup> The prevailing discourse that influenced previous policies was that forests were “a symbol of underdevelopment – and should thus be mined for their resources, for example timber or game, and substituted by more ‘productive’ land uses, such as agriculture and cattle farming.” (Viana, 2010).

<sup>15</sup> Interview 1; Interview 2, p. 9; Interview 3, pp. 4, 6; Interview 8, p. 8; Interview 10, p. 9, Viana (2010).

<sup>16</sup> Interview 3 p. 4; Interview 4, p. 5; Interview 5, p. 9; Interview 7, p. 5; Interview 8, p. 5.

<sup>17</sup> Amazonas (2007).

<sup>7</sup> In all case studies, very few industry representatives were mentioned as key actors in the policy processes, hence the small number of interviewees from that sector.



in the state.<sup>18</sup> The governor issued Executive Order n. 26.958/2007 creating the Forest Conservation Allowance (*Bolsa Floresta*) program, which can be considered the first jurisdictional REDD+ program in Brazil. Policy entrepreneurs engaged in the policy's adoption – such as members of the state environmental agency and partner NGOs – stated they relied on the international momentum for REDD+ between 2005 and 2007 as well as on Brazil's lack of interest in pursuing a federal law on REDD+ to shift discussions from the federal to the state government.<sup>19</sup> They seized this window of opportunity to propel the climate change bill and *Bolsa Floresta* program to the top of the governor's agenda and to get the law passed in the state legislature.<sup>20</sup>

Although there were discussions about the law's and program's designs,<sup>21</sup> there was no evidence of opposition to their adoption or of coalition formation in the policy process. During the legislative procedure for the climate change law, the bill was unanimously approved by all commissions involved in its revision. It was unanimously approved by the state legislature.<sup>22</sup> Some interviewees mentioned the initiatives were not contentious because they did not create any “losers”, but an incentives program meant to be funded by external sources that did not generate any new costs to the state's budget.<sup>23</sup>

#### 4.2. Acre

“[REDD+] Totally aligned with the state's sustainable development strategy”.<sup>24</sup>

In 2007, Acre's governor initiated consultations about creating a climate change policy, as REDD+ discussions were happening at COP13. Interviewees stated the governor perceived REDD+ as an opportunity to attract funds for Acre, since the state had already been reducing deforestation rates and implementing various conservation strategies. The influence of the markets pathway could be observed by the perceived potential of economic incentives that would come from adopting a jurisdictional approach. This expectation was determinant in steering the government towards pursuing the mechanism.<sup>25</sup> The norms pathway was also influential, as transnational discourses surrounding REDD+ at COPs, with a focus on valuing standing forests as a means of addressing deforestation, reinforced the administration's own views on how forests should be managed.<sup>26</sup> Acre already had been implementing a forest certification and PES scheme, and transnational interest in REDD+ acted as a catalyst for the administration to build on the program.<sup>27</sup>

Key transnational organizations – such as the German Corporation for International Cooperation (GIZ) and the World Wildlife Fund (WWF) – influenced the policy process through the direct access pathway, by providing funding and technical assistance to design the State System of

Incentives for Environmental Services (SISA) program.<sup>28</sup> These actors hired a legal consultancy for the state, as well as funded knowledge exchange with experts and between jurisdictions that already had a REDD+ program.<sup>29</sup> The federal government's hesitation about whether or how to implement REDD+ in Brazil and its perceived neglect for the remote state of Acre, created a state-level window of opportunity and led the administration to actively seek transnational partners and venues that could support its jurisdictional policy.<sup>30</sup>

In 2009, Acre joined the governors of Amazonas, Amapá, Mato Grosso and Pará, as well as U.S. and Indonesian states to found the Governor's Climate and Forests Taskforce (GCF), a network of subnational governments created to advance jurisdictional approaches to low emissions development and REDD+, with potential for states in developing countries to negotiate credits as offsets in future U.S. compliance markets.<sup>31</sup> The GCF was one transnational venue sought by Acre.<sup>32</sup> Acre also focused on fostering a close relationship with California, a partnership made official in 2010 with a Memorandum of Understanding (MOU) between the two states and the state of Chiapas, Mexico.<sup>33</sup> This agreement created a working group to generate studies and proposals to trade REDD+ credits from the South American jurisdictions to offset emissions in California's cap-and-trade program.<sup>34</sup>

Policy entrepreneurs, including Acre's environmental secretary, NGOs, and the governor himself, seized international momentum of the UNFCCC REDD+ discussions from 2007 onwards and negotiations with California to place a jurisdictional policy on the state's agenda.<sup>35</sup> The administration hoped to fund SISA using a variety of financial mechanisms, including carbon credits and results-based payments.<sup>36</sup> The state's relationship with California was an important incentive for policy adoption. It represented a credible prospect that Acre could eventually offset Californian emissions.<sup>37</sup>

A draft SISA bill was open for public consultation between 2009 and 2010.<sup>38</sup> During that time, a group associated with the Carta de Belém manifesto, comprised of Indigenous Peoples and small farmers organizations in the Amazon who were opposed to REDD+ as a policy instrument, positioned themselves against the policy, due to concerns about the ability of local peoples to continue to use their lands for agriculture, and the potential “selling out” of nature. Although the group was clearly against SISA, they chose not to be involved in public consultations.<sup>39</sup> With no effective opposition or coalitions trying to bar the policy, the SISA law was approved unanimously in 2010 by the state legislature.<sup>40</sup>

<sup>18</sup> Amazonas (2007).

<sup>19</sup> Interview 1; Interview 3 p. 7; Interview 7, p. 3; Interview 8, p. 4, 8.

<sup>20</sup> Interview 1; Interview 2, p. 2; Interview 3 p. 6; Interview 7, p. 3; Interview 11, p. 3.

<sup>21</sup> Interview 7, p. 7; Interview 8, p. 7.

<sup>22</sup> Amazonas (2007).

<sup>23</sup> Interview 6, p. 2; Interview 8, p. 8.

<sup>24</sup> Interview with Government Representative, Rio Branco, Acre, July 2017 (Interview 22), p. 10.

<sup>25</sup> Interview 22, p. 4.

<sup>26</sup> Interview 22, pp. 2, 4, 10; Interview with Government Representative, Rio Branco, Acre, July 2017 (Interview 13), pp. 3, 12; Interview with Consultant, Rio Branco, Acre, July 2017 (Interview 14), p. 8; Interview with Government Representative, Rio Branco, Acre, July 2017 (Interview 15), p. 2; Interview with Government Representative, Rio Branco, Acre, July 2017 (Interview 16), p. 6; Interview with Civil Society Organization Representative, Rio Branco, Acre, July 2017 (Interview 17), p. 1; Interview with Government Representative, Rio Branco, Acre, July 2017 (Interview 18), p. 6.

<sup>27</sup> Interview 22, p. 10; Interview 14, p. 8; Interview 15, p. 1.

<sup>28</sup> Interview 13, pp. 2, 4; Interview 16, p. 4; Interview 17, p. 3; Interview with Consultant, Skype Call, July 2015 (Interview 21), p. 1.

<sup>29</sup> Interview 22, p. 2, 5; Interview 13, p. 2.

<sup>30</sup> Interview 22, p. 5; Interview 14, p. 2–3; Interview 16, p. 4–5.

<sup>31</sup> Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 25), p. 1.

<sup>32</sup> Interview 14, p. 10; Interview 16, p. 10; Interview 21, p. 2.

<sup>33</sup> (California, Acre, and Chiapas 2010)

<sup>34</sup> (California, Acre, and Chiapas 2010)

<sup>35</sup> Interview 22, pp. 4, 9, 10; Interview 13, p. 3; Interview 14, p. 6; Interview 16, p. 8.

<sup>36</sup> Interview 22, p. 8; Interview 13, p. 6; Interview 16, p. 4; Interview 17, p. 3; Interview with Government Representative, Skype Call, September 2015 (Interview 20), p. 3.

<sup>37</sup> Interview 14, p. 2, 7; Interview 15, p. 3; Interview 16, p. 4; Interview 36, p. 4.

<sup>38</sup> (Acre, 2012).

<sup>39</sup> Interview 22, p. 10; Interview 14, p. 8; Interview 16, p. 13.

<sup>40</sup> Interview 16, pp. 8, 13; Interview 17, p. 5.

#### 4.3. Mato Grosso

“[The Governor] turned around and said he would embrace the environmental cause”.<sup>41</sup>

Unlike Acre and Amazonas, Mato Grosso has historically presented one of the highest deforestation rates in Brazil, a situation associated with the expanding cattle and agricultural industries. Mato Grosso is the biggest exporter of agricultural commodities in Brazil.<sup>42</sup> From 2003–2013, the state was governed by a political group connected with the soy industry. During the administration’s early years, rates of deforestation soared.<sup>43</sup> The administration’s link to the soy industry earned Mato Grosso’s governor Greenpeace’s “Golden Chainsaw Award” in 2005.<sup>44</sup> Meanwhile, the federal government launched an aggressive law enforcement operation to contain deforestation in the Amazon, and many members of the soy supply chains were implicated.<sup>45</sup> The negative repercussions of the federal actions in Mato Grosso and the international attention brought upon the governor prompted a dialogue with civil society about containing deforestation in the state.<sup>46</sup>

From 2006 onwards, the state administration devised a plan to reduce deforestation by 89 % by 2020<sup>47</sup> and a jurisdictional REDD+ program, through the influence of key state-level NGO policy entrepreneurs, such as Instituto Centro de Vida (ICV). Given the Brazilian federal government’s lack of direct support for states’ REDD+ initiatives, the Mato Grosso government and state policy entrepreneurs turned to international venues. In 2009, the governor joined the GCF.<sup>48</sup> In addition, an informal group led by ICV elaborated a preliminary version of Mato Grosso’s REDD+ policy and presented it at COP15 in Copenhagen in partnership with the state administration.<sup>49</sup> In the same year, the governor articulated the passing of a law to create Mato Grosso’s State Climate Change Forum, a multi-stakeholder forum to discuss climate solutions.<sup>50</sup>

A working group on REDD+ was created within the Forum to design a jurisdictional program.<sup>51</sup> The markets pathway was perceived by interviewees as being influential in placing and keeping REDD+ on the agenda. ICV engaged in the policy process and worked to persuade subsequent state administrations that voluntary and compliance carbon markets, especially California’s, would be an important source of

funding,<sup>52</sup> and that creating a jurisdictional program would facilitate access to international markets.<sup>53</sup> Transnational organizations and networks such as the Climate and Land Use Alliance (CLUA) and the GCF supported the process by funding preliminary studies and consulting work conducted during discussions,<sup>54</sup> suggesting the influence of the direct access pathway.

With backing of transnational partners, NGOs were able to place REDD+ on the state’s agenda by seizing the window of opportunity created by several events: the governor’s change of position about tackling deforestation in 2005, the official launch of REDD+ at COP13 in 2007, the creation of the GCF in 2009, and the absence of a federal law on REDD+. <sup>55</sup> Through reframing deforestation as an economic problem that needed to be addressed through positive incentives, policy entrepreneurs were able to attract the governor’s and private sector’s support for a jurisdictional policy,<sup>56</sup> since paying land owners to preserve forests was agreeable to these stakeholders.<sup>57</sup> Because REDD+ discourse fit with the political views of the main policy actors in the state, the norms pathway steered policy entrepreneurs and the administration into focusing its environmental agenda on a jurisdictional policy.

During the discussions of Mato Grosso’s policy, there were no opposing coalitions formed to bar the program’s adoption. Groups associated with the Carta de Belem manifesto refused to participate in debates.<sup>58</sup> The final bill was presented by a new governor and passed into law by the state legislature in 2013, with no modifications by state representatives,<sup>59</sup> creating Mato Grosso’s State System for REDD+. <sup>60</sup> Interviewees stated that the fact that the program did not create any burdens to the state budget, or new legal obligations to producers, simplified the approval process.<sup>61</sup>

#### 4.4. Pará

“There was no market, there were no payments”.<sup>62</sup>

In anticipation of a binding agreement in COP15 in Copenhagen in 2009, two environmental NGOs in Pará began to design and implement pilot REDD+ projects. The governor of Pará was a founding member of the GCF and had created Pará’s State Forum on Climate Change, including a Technical Chamber to discuss a REDD+ policy.<sup>63</sup> The São Félix do Xingu pilot REDD+ project was initially a partnership between a The Nature Conservancy (TNC), a key policy entrepreneur in the state, and the Pará government,<sup>64</sup> whose secretary of Environment wanted

<sup>41</sup> Interview with NGO Representative, Cuiabá, Mato Grosso, July 2017 (Interview 24), p. 2.

<sup>42</sup> Governo do Estado de Mato Grosso, Projeto de Lei n. 637/2012, p. 24.

<sup>43</sup> Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 23), p. 2.

<sup>44</sup> Interview 23, pp. 2–3; Interview with NGO Representative, Cuiabá, Mato Grosso, July 2017 (Interview 26), p. 3; Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 31), p. 2.

<sup>45</sup> Interview 24, pp. 2–3.

<sup>46</sup> Interview 23, pp. 2, 3, 6; Interview 26, p. 3; Interview 31, p. 2.

<sup>47</sup> Mato Grosso State Plan to Prevent and Control Deforestation and Fires (Plano de Prevenção e Controle do Desmatamento e das Queimadas - PPCDQ-MT), 2009.

<sup>48</sup> Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 25), p. 1.

<sup>49</sup> Interview 24, p. 2; Interview 26, p. 3; Interview with NGO Representative, Skype Call, August 2017 (Interview 36), p. 6.

<sup>50</sup> State Law n. 9111, de 15 de Abril de 2009.

<sup>51</sup> Interview 24, p. 5; Interview with Private Sector Representative, Skype Call, July 2017 (Interview 32), p. 2; Governo do Estado de Mato Grosso, Projeto de Lei n. 637/2012, p. 59.

<sup>52</sup> Interview 23, p.11, Interview 25, p. 7; Interview 32, p. 4; Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 33), p. 4.

<sup>53</sup> Interview 25, p. 4; Interview with NGO Representative, Cuiabá, Mato Grosso, July 2017 (Interview 27), p. 7; Interview with Consultant, Cuiabá, Mato Grosso, July 2017 (Interview 28), p. 1; Interview 31, p. 6; Governo do Estado de Mato Grosso, Projeto de Lei n. 637/2012, p. 24.

<sup>54</sup> Interview 23, p. 3, Interview 25, p. 7; Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 29), p. 2; Interview with Private Sector Representatives, Cuiabá, Mato Grosso, July 2017 (Interview 30), p. 3.

<sup>55</sup> Interview 23, pp. 2–3; Interview 24, pp. 2–3.

<sup>56</sup> Interview 24, p. 2–3.

<sup>57</sup> Interview 26, p. 7, Interview 27, p. 2; Interview 32, pp. 2, 8.

<sup>58</sup> Interview 23, p. 10; Interview 26, p. 7.

<sup>59</sup> Interview 25, p. 8; Interview with Government Representative, Cuiabá, Mato Grosso, July 2017 (Interview 34), p. 1; Governo do Estado de Mato Grosso, Projeto de Lei n. 637/2012, p. 56.

<sup>60</sup> Governo do Estado de Mato Grosso, Projeto de Lei n. 637/2012, p. 67.

<sup>61</sup> Interview 34, p. 1.

<sup>62</sup> Interview with NGO Representative, Skype Call, August 2017 (Interview 38), p. 8.

<sup>63</sup> Executive Order n. 1900/2009.

<sup>64</sup> Interview 38, pp. 4–5.

more evidence REDD+ would be a viable option.<sup>65</sup> Due to lack of funding, the pilot program never developed into a full-fledged REDD+ project.<sup>66</sup> Another pilot in the state was developed in federal settlements along the Transamazon Highway by the Amazon Environmental Research Institute (IPAM), another influential NGO that acts throughout the Amazon states, with financing from the Amazon Fund.<sup>67</sup> Funding for the project was not renewed and the initiative ended in 2018.<sup>68</sup>

With financial issues surrounding the projects, the two organizations took a step back from the REDD+ agenda and redirected their efforts into other initiatives.<sup>69</sup> In 2011, a new administration took office with an environmental agenda focused on command-and-control measures to curb deforestation and other environmental initiatives.<sup>70</sup> REDD+ was no longer a priority for the NGOs in the state, even though they continued to participate in marginal discussions on the topic at the State Climate Change Forum.<sup>71</sup> The Institute of People and the Environment of the Amazon (Imazon), a local organization that is very active in state environmental discussions, provided the new state government with occasional technical guidance on REDD+ and proposed a jurisdictional policy be pursued.<sup>72</sup> The state administration in power was not responsive to their strategies. Instead, it focused on designing and implementing their own environmental agenda with the Green Municipalities Program, an initiative funded by the Amazon Fund to decentralize key responsibilities to municipalities to curb deforestation.<sup>73</sup>

#### 4.5. Amapá

“It was not an external institution that brought the agenda to the state. [The president of the State Forestry Institute’s] interest in working with [REDD+] was much stronger”.<sup>74</sup>

Amapá is a GCF founding member, and its administrations have been engaged in REDD+ debates mainly through that forum since 2009. Discussions about adopting a jurisdictional policy in Amapá began in 2012, propelled by state delegate’s participation in the GCF: the State

Environmental secretary and the president of the State Forestry Institute.<sup>75</sup> In 2013, the governor created Amapá’s State Forum on Climate Change and Environmental Services, and a legal consultancy was hired to draft a bill for the State Climate Change, Conservation, and Incentives for Environmental Services Policy.<sup>76</sup> Discussions at the State Forum and the draft bill were supported by technical studies conducted by IDESAM and funded by the Inter-American Development Bank, and by a study funded by the Guiana Shield Facility.<sup>77</sup> The REDD+ for the Guiana Shield Project, a technical cooperation initiative funded by multilateral and foreign donors to produce studies to further REDD+ in the region, also generated technical insights and capacity building for state civil servants.<sup>78</sup>

A draft bill was finalized in 2014, but it was never sent to the state legislature because it was an election year and the project was not prioritized. A new administration took over in 2015, with the election of the same governor who was in office in 2009 when the GCF was founded. The new administration was sceptical of REDD+’s potential to harness funds. REDD+ had been discussed since they were in office before and yet no concrete financing had emerged for the state.<sup>79</sup> Although civil servants previously involved with the State Forum and bill tried to convince the new administration to revise the document and send it to the state legislature, the administration remained dubious.<sup>80</sup> Instead, their environmental agenda focused on logging concessions in state forests and initiatives considered to be more in line with the government’s development goals.<sup>81</sup>

#### 5. Discussion and findings

The following table illustrates the application of our codebook to the data. If evidence of a pathway of influence, strategy of policy entrepreneurship, or policy belief gathered enough support (mentions in interviews, documents, or study, as indicated in the footnotes to the case studies), we considered the pathway, strategy or belief to have been present.

Table 1. Summary of Findings

Case Studies	Pathways of Influence		Strategies of policy entrepreneurship					Policy Beliefs	
	Markets	Direct Access	Norms	Rules	Strategy 1: seize windows of opportunity	Strategy 2: reframe policy problem	Strategy 3: form coalition	Strategy 4: shift venue	Governor’s policy beliefs
Amazonas	✓	✓	✓	✗	✓	✓	✗	✓	✓
Acre	✓	✓	✓	✗	✓	✗	✗	✓	✓
Mato Grosso	✓	✓	✓	✗	✓	✓	✗	✓	✓
Pará	✓	✓	✗	✗	✗	✗	✗	✗	✗
Amapá	✓	✓	✗	✗	✗	✗	✗	✗	✗

<sup>65</sup> Interview with NGO Representative, Skype Call, July 2015 (Interview 42), p. 1.; (Consultoria, 2009, 12)

<sup>66</sup> Interview with NGO Representative, Skype Call, August 2017 (Interview 39), p. 5.

<sup>67</sup> Interview with NGO Representative, Skype Call, August 2017 (Interview 40), p. 8.

<sup>68</sup> Interview 40, p. 5.

<sup>69</sup> Interview 38, p. 3; Interview 39, p. 3; Interview with NGO Representative, Belém, Pará May 2018 (Interview 41), p. 1.

<sup>70</sup> Interview with Government Representative, Skype Call, September 2017 (Interview 37), p. 4–5; Interview 38, p. 5; Interview 40, p. 7.

<sup>71</sup> Interview 37, p. 2;

<sup>72</sup> Interview 37, p. 4; Interview 42, p. 1.

<sup>73</sup> Interview with NGO Representative, Skype Call, November 2019 (Interview 46), p. 1.

<sup>74</sup> Interview with Government Representative, Skype Call, October 2017 (Interview 44), p. 4.

A comparative analysis of our case studies, based on the perspectives of the key domestic policy entrepreneurs interviewed, resulted in two key findings:

1. *Credible market incentives were the key influence for state governors to adopt a jurisdictional policy for receiving REDD+ funds, but*

<sup>75</sup> Interview with Government Representative, Skype Call, August 2017 (Interview 43), p. 1; Interview 44, pp. 3, 6.

<sup>76</sup> Interview 43, p. 1.

<sup>77</sup> Interview 43, p. 6; Interview 44, p. 3.

<sup>78</sup> Interview 43, p. 4; Interview 44, p. 4.

<sup>79</sup> Interview 43, p. 7.

<sup>80</sup> Interview 43, p. 7; Interview 44, pp. 4, 9; Interview with NGO Representative, Skype Call, September 2017 (Interview 45), pp. 3, 6.

<sup>81</sup> Interview 43, p. 8; Interview 44, p. 4; Interview 45, p. 3.

*transnational norms and material assistance played mediating roles.*

Our findings suggest that the norms, direct access and market pathways played were perceived to have played a significant role in the governors' decisions to pursue REDD+ jurisdictional policies in Acre, Amazonas, and Mato Grosso. In some cases, these pathways influenced governors' policy preferences as a result of their participation in transnational fora such as COPs and GCF meetings, where they were exposed to funding opportunities and discourses on REDD+. In most cases, these pathways were deemed influential because they enabled environmental NGOs and secretaries of Environment to pursue strategies of policy entrepreneurship to support adoption of jurisdictional REDD+ policies in their states.

Although the norms and the direct access pathways were relevant, the key influence in all positive cases was the markets pathway: governors were convinced funds from carbon markets or results-based payments would come to their states and that adopting a jurisdictional policy would give them an advantage in accessing finance.<sup>82</sup> According to interviewees, obtaining REDD+ funding was ultimately the main goal pursued by governors in Acre, Amazonas, and Mato Grosso, but the perceived credibility of economic incentives was key to governors' decisions. In Pará and Amapá, the governors were not convinced access to finance would materialize and were not willing to invest resources into pursuing a jurisdictional policy.

2. *The credibility of market incentives to the governors was influenced by: (1) the presence of state-level policy entrepreneurs actively employing strategies to influence the governor; (2) the timing of strategies employed by policy entrepreneurs; (3) the policy beliefs held by governors; (4) evidence regarding the availability of REDD+ finance for states (e.g. the performance of REDD+ projects in the state or speed in obtaining funding).*

By comparing policy actors' perceptions in each case study, we found that four factors were especially relevant in shaping governors' perceptions about the credibility of attaining REDD+ funds. The presence of state-level policy entrepreneurs and the continued employment of strategies to influence governors throughout changes in state administrations were perceived as key factors in all positive cases. The most relevant strategy employed by entrepreneurs was to anticipate and seize windows of opportunity for policy-making that were opened as a result of transnational influences (Strategy 1). Strategies 2, 3, and 4 were more effective when used in combination with Strategy 1. A window of opportunity was salient between 2005 and 2010, the period between the introduction of REDD+ as a mitigation option under the UNFCCC and COP 15 in Copenhagen, and during which the Brazilian federal government chose not to pursue a federal REDD+ law. The absence of a legislated federal policy on REDD+ left states with full authority to legislate on the issue and to pursue their own jurisdictional initiatives.

After Copenhagen, an international regulated carbon market that would negotiate REDD+ credits became less likely to materialize in the near future. From 2010 onwards, with the failure of a binding international agreement with emissions reductions targets, the prospect of substantial REDD+ funding became less credible to state actors. In the positive cases, policy entrepreneurs were able to employ strategies and successfully place REDD+ on the states' agenda and pass it into law within or not too long after the 2005–2010 timeframe. In Amazonas, the Governor and policy entrepreneurs were able to pass legislation within that window of opportunity. In Acre and Mato Grosso, a jurisdictional policy was placed on the agenda within that timeframe. Policy entrepreneurs sustained their strategies throughout changes in state administrations until the policies were passed into law. In the negative cases, strategies were employed mostly outside of that timeframe, when the previously expected availability of REDD+ funding had been much

discredited.

Provision of material assistance by transnational actors and organizations (direct access pathway) enabled policy entrepreneurs to engage in strategies and influence state policy processes, but support was not seen as sufficient to guarantee their success. In all cases, positive and negative, preliminary studies and consultancies were funded by transnational actors, but a jurisdictional policy was adopted only in cases where REDD+ market incentives were perceived as credible by the governors, a process influenced by their policy beliefs on environmental issues and the timing of strategies of policy entrepreneurship. The direct access pathway played an enabling role that allowed policy entrepreneurs to participate in states' policy processes, successfully or not.

Policy beliefs held by governors were an important factor in determining the credibility of market incentives from REDD+ and the success of strategies adopted by policy entrepreneurs. In states where the governor already held beliefs compatible with the ones diffused by the REDD+ transnational movement through the norms pathway and backed by prospective economic incentives, these transnational influences were important in "tipping the scales" towards adopting a REDD+ policy. In these states, transnational influences were deemed to have helped to steer the governor into prioritizing REDD+ over other agendas. In Acre and Amazonas, the governors had already been adopting discourses about how positive incentives and international funding were necessary to curb deforestation in addition to command-and-control measures. Transnational REDD+ discourses and prospective economic rewards reinforced those policy beliefs. However, transnational influences and strategies focused on changing existing policy beliefs were not influential enough to effect change in states where the governor and key constituencies held incompatible views. A paradigmatic change in policy beliefs only happened in Mato Grosso. This change did not occur by influence of the norms pathway and strategies adopted by local policy entrepreneurs, but due to the market pressure from a targeted campaign against the state governor and local industries that pre-dated the REDD+ policy process.

Governors' policy beliefs on environmental issues also influenced their openness to pursuing paradigmatic changes or innovations to states' environmental policies. The governor of Amazonas and his Environmental secretary had conceived a full-fledged state sustainable development strategy. A PES scheme with a focus on forests became an important part of their plan. The governors of Acre had been leaders in implementing innovative environmental policies in Brazil for decades. After being convinced of the importance of containing deforestation to maintain a good reputation and access to foreign markets for key constituencies, the governor of Mato Grosso was willing to work with environmental NGOs to promote his new vision for the state.

In the negative cases, governors were not convinced REDD+ funds would become available. In both cases, policy entrepreneurs pushing for a jurisdictional policy were either not able to sustain their efforts throughout changes in administration, were not fully engaged in strategies to further a jurisdictional policy, and/or missed the 2005–2010 window of opportunity. In Pará, two of the key policy entrepreneurs in the state did not sustain their efforts after engaging in pilot REDD+ projects that were terminated for lack of funding. A third main policy entrepreneur in the state employed strategies mostly outside the window of opportunity, when the administration in power was not receptive to the idea of jurisdictional REDD+ and was focused on a different environmental agenda. In Amapá, policy entrepreneurs were inconsistent. The main entrepreneurs, who finalized a draft jurisdictional REDD+ bill, were members of the administration in office at the time. With changing administrations, the jurisdictional policy lost its key advocates. Environmental NGOs had not acted consistently throughout time in Amapá. In both cases, as the 2005–2010 timeframe became more distant, the less credible the prospect of attaining REDD+ funding became to governors.

In Pará and Amapá, policy beliefs of governors in office during the 2005–2010 window of opportunity were not favorable to a jurisdictional

<sup>82</sup> Interview 35, p. 5.



initiative. Governors were focused on facilitating economic development in their states and investing resources into pursuing a REDD+ policy did not immediately fit with their main goals. They were also exposed to evidence that REDD+ finance would not easily become available. In Pará, a skeptical secretary of the Environment wanted evidence from a pilot project before committing to a state-level policy, and the pilot REDD+ project was terminated due to insufficient funding. After that, a new administration took office with their own environmental agenda that focused on the Green Municipalities Program, and did not include a jurisdictional REDD+ policy. In Amapá, a change in administration prevented the draft REDD+ bill from being sent to the state legislature. The new administration was not interested in adding to its portfolio of state environmental policies and was not convinced funds would reach the state, since REDD+ discussions had been ongoing for ten years and no significant funds had been attracted to Amapá.

## 6. Conclusion

Whether to compensate for an absence of federal climate action or to complement federal efforts, subnational governments in the global south have played an increasingly important role in climate policymaking, including in the context of REDD+. This article examined how transnational influences have interacted with strategies of domestic policy entrepreneurship and domestic factors to influence adoption of REDD+ policies by states in the Brazilian Amazon. The influence of transnational forces on states' domestic policy processes was made possible by the decentralization of environmental legislative competence determined by the Brazilian Constitution's federative model. Because states are able to legislate on environmental matters as long as their rules do not conflict with federal laws, they had sufficient autonomy to pursue their own REDD+ agenda. The openness of Brazil's political system also allows free action of domestic and transnational policy entrepreneurs to pursue their agendas and to influence the policy process according to their preferences and resources. These conclusions are consistent with broader findings from the transnational climate governance literature, which points to the roles of decentralisation, autonomy of subnational jurisdictions, and openness of political systems as country-level characteristics that favour participation in transnational governance (Andonova et al., 2017; Busch and Amarjargal, 2020). Our study also shows how federations may offer advantages for transnational climate governance, especially in a context where federal governments may be unwilling or unable to adopt ambitious climate measures.

Our analysis goes further into examining the interplay between domestic factors and transnational influences in subnational policy processes to identify the perceived scope conditions that make policy entrepreneurship in a federal governance structure more or less likely. We found market incentives were key in influencing state governors to adopt jurisdictional policies. Without the potential of attracting external funds to states, it would have been unlikely that only the influence of transnational norms and material assistance provided by transnational actors to state-level policy entrepreneurs would have been sufficient to steer state policy processes towards the adoption of jurisdictional REDD+ policies. Nevertheless, the influence of the markets pathway was dependent on the credibility of market signals as perceived by state governors.

This credibility depended on the policy beliefs held by governors and the ability of state-level policy entrepreneurs to employ strategies to put REDD+ on states' agendas within the 2005–2010 timeframe, after which hopes for an international carbon market that included REDD+ dimmed. The norms pathway was influential in tipping the scales towards placing REDD+ on states' agendas only when governors already held policy beliefs compatible with transnational REDD+ discourse. Transnational norms associated with REDD+ were not able to change beliefs incompatible with the transnational discourse, a transformation that was only achieved by targeted advocacy campaigns against the governor and local industry that preceded the discussions on

REDD+. In all positive cases, it was necessary that the governor agreed with the need to curb tropical deforestation and the desirability of using economic incentives to achieve that goal. When those views were aligned, governors were open to being influenced by strategies of policy entrepreneurs pursuing changes and innovations to existing state environmental policies. In all cases, the adoption of strategies was enabled by transnational actors who provided material support to state-level policy entrepreneurs, even though such support did not guarantee adoption of a jurisdictional REDD+ policy.

Our account emphasizes the role of domestic actors and their strategic behaviour in the analysis of climate governance and federalism in a developing country. It is precisely their ability to operate as intermediaries at the intersections of transnational and domestic policy processes that can be key to their success in promoting the adoption of innovative environmental policies (Steinberg, 2001). This model is not exhaustive of all the factors that could help explain the climate leadership demonstrated by the states of Acre, Amazonas, and Mato Grosso, such as differences in capacity between states, variations in the underlying political economy of forest governance, the preferences of citizens, and other factors unique to a state's policy process (Guerra and Moutinho, 2020; Gomes et al., 2010; Moutinho et al., 2015). Policy entrepreneurs never operate in a vacuum – they must carefully navigate the array of opportunities and challenges that governs a policy problem in their domestic political environments (Mintrom and Norman, 2009). While we focus on policy entrepreneurship at the state level, we recognize that many other policy actors have influenced the formulation of REDD+ policies at other levels and in other ways, most notably including Indigenous Peoples and local communities (Gomes et al., 2010). However, this article fills a significant gap in the literature regarding the specific roles of domestic policy entrepreneurs in state-level REDD+ agenda-setting and decision-making processes.

This approach has yielded valuable insights into understanding why some jurisdictions chose to adopt REDD+ as a climate policy while others did not, helping to contemplate the possible futures of jurisdictional REDD+ in Brazil and elsewhere. New windows of opportunity have recently been opened by transnational actors and may have already been seized by subnational policy entrepreneurs. The LEAF Coalitions pledge in 2021 to mobilize \$1 billion for jurisdictional initiatives to curb deforestation has been especially influential, as eight out of the nine Amazonian states have manifested interest in developing jurisdictional REDD+ policies in order to access the funds. Whether or not these events will in fact prompt further diffusion of jurisdictional REDD+ policies in Brazil and elsewhere remains to be seen.

## Data Availability

The authors do not have permission to share data.

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## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.landusepol.2023.106582](https://doi.org/10.1016/j.landusepol.2023.106582).

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