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ARTIGO

**INTEGRATING CLIMATE CHANGE INTO SECTORAL POLICY
PROCESSES: AN ANALYSIS OF THE LEGISLATIVE PROCESS OF
STATUTE NO. 14,301/2022 (“BR DO MAR”) USING KINGDON’S
MULTIPLE STREAMS FRAMEWORK**

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Integrating climate change into sectoral policy processes: An analysis of the legislative process of Statute No. 14,301/2022 (“BR do Mar”) using Kingdon’s Multiple Streams Framework

Abstract:

In order to gather insights into how climate change can be integrated into sectoral policies, we apply Kingdon’s Multiple Streams Framework to analyse the forces at work in the policy process of Statute No. 14,301/2022, a piece of legislation encouraging maritime cabotage development. Based on data from 259 newspaper articles and ten in-depth interviews, this research found that a window of opportunity was opened by the emergence of a problem (overreliance on road transport), a key event (truck drivers’ strike) and changes in the administration (e.g. new Minister of Infrastructure creating the first navigation department), which the Minister of Infrastructure seized by attaching a policy proposal and persisting for its approval until it was converted into law. This article concludes by offering recommendations for policy entrepreneurs on how climate change can be incorporated into future sectorally-driven policy processes to explore opportunities not seized in the case of Statute No. 14,301/2022.

Keywords: Cabotage. Climate change. Policy window.

1. Introduction

In its updated Nationally Determined Contribution (NDC), from 2020, Brazil reinforced its commitment to reduce GHG emissions for the entire economy by 37% in 2025 and by 43% in 2030, compared to 2005 levels. It also included a carbon neutrality goal to be achieved by 2060 (GOVERNMENT OF BRAZIL, 2020). In April 2021, President Jair Bolsonaro increased this ambition, announcing the anticipation of the target to 2050, a goal which was formally communicated to the UNFCCC in October of that year (UN AFFAIRS, 2021; WATANABE, 2021).

Presented at COP-26, the government’s Guidelines for a National Climate Neutrality Strategy state that the country intends to adopt various sectoral measures to reach this target, including strengthening the low-carbon transition in freight transport infrastructure (MINISTÉRIO DO MEIO AMBIENTE, 2021). Overall, the transport sector corresponds to 62% of the GHG emissions of Brazil’s energy sector, which, in turn, is responsible for 18% of the country’s total emissions (SEEG, 2021). The high level of emissions from freight transportation is explained by the overreliance on roads – representing 65% of the transport matrix (MINISTÉRIO DOS TRANSPORTES, 2018) – and the high average truck age – 15.2 years old in 2019 (CNT, 2019a) -, making them more fuel-intensive and polluting (CNT, 2019b).

In view of the country’s climate change commitments and the role of low-carbon transport modes in attaining climate neutrality, it is interesting to note that, during the policy process of Draft Bill 3,199/2020 (so-called “BR do Mar”), there was hardly any mention to the potential of maritime cabotage to contribute to climate change mitigation. Presented by the Executive branch to Congress in August 2020 and sanctioned in January 2022 as Statute No. 14,301, this piece of legislation creates a program to stimulate cabotage transportation in Brazil and reduce entry barriers to new players.

In order to learn from the Statute's policy process and **gather insights into how climate change can be incorporated into (low-carbon) sectoral policies**, we apply Kingdon's Multiple Streams Framework (MSF) (KINGDON, 2014) to analyse the forces at work before and during this legislative process. The MSF was chosen as the theoretical framework since it is widely accepted by academic scholars as useful in understanding public policy processes, particularly in their most initial stages, prior to implementation (JONES et al., 2016; RAWAT; MORRIS, 2016). Applying Kingdon's MSF offered us a **better comprehension on how climate issues could have been integrated into the problem, policy and political streams of this policy process, and provided insights that could be valuable for future sectorally-driven, but also climate-related, policy processes**. Therefore, this article hopes to fill an empirical gap in the literature on the application of MSF in emerging markets and on the relationship – and apparent disconnect – between climate and sectoral policy processes. This article is structured as follows. Firstly, we analyse the academic literature applying Kingdon's MSF in environmental and climate-related policy processes. We then describe the methods, and present the research findings, analysing the main forces at play in the legislative process of Draft Bill 3,199/2020. Drawing on ROSE et al. (2020)'s framework on approaches to policy windows, this article concludes with recommendations on how climate change concerns can be incorporated into future (low-carbon) sectorally-driven policy processes to explore opportunities not seized in the case of Statute No. 14,301/2022.

2. Literature review

New public policies are generally adopted when the need for change is clear and there are feasible and well understood solutions available (FRIEDMAN; BREITZER; SOLECKI, 2019). Various theories and frameworks have been suggested to analyse how policies are enacted, from the moment a topic starts receiving greater attention to policy implementation (and even termination) (JANN; WEGRICH, 2007).

Among the theories available to explain policy change, the literature highlights the Multiple Streams Framework, the Advocacy Coalition Framework, Punctuated Equilibrium Theory, Diffusion Theory, Internal Determinants Model and Institutional Entrepreneurship Theory (JOHN, 2003; PIVO; HENRY; BERGER, 2020). Despite the merits of each theory, in this research, we employ Kingdon's MSF due to its "intuitive appeal" (CAIRNEY; JONES, 2016) and its emphasis on analysing the agenda-setting stage of domestic public policies in presidential, democratic systems (SHIBUYA,

1996).

According to the MSF, changes in the governmental agenda occur when a **policy window** opens due to the convergence of three streams, analytically considered as independent amongst themselves:

- **Problem stream**, in which issues are perceived as problems to be solved, for instance, due to compelling crisis, indicators or feedback from existing programs;
- **Policy stream**, in which policy alternatives are suggested, refined and combined according to technical, budgetary and political aspects;
- **Political stream**, in which bargaining processes (e.g. campaigns, elections, changes in the national mood) take place in order to form winning coalitions (KINGDON, 2014).

Policy entrepreneurs play an important role in joining the different streams, attaching solutions to problems, minimising and overcoming restrictions, rewriting proposals and seizing favourable events. More than trying to solve a problem, policy entrepreneurs, who may or may not hold formal governmental positions, seek to attach their preferred alternative to an existing problem (ALMEIDA; GOMES, 2018; CAPELLA, 2006).

For example, in Brazil, a newly appointed Biodiversity Secretary, with a “life-driven motivation” for protected areas, proposed the creation of large-scale marine protected areas, a low-cost alternative to reduce the country’s gap in international marine protected area targets (GONCALVES; DE SANTO, 2021). In the US, academics and environmental groups acted as policy entrepreneurs, accessing their political relationships to advocate for the accounting of indirect land use change (ILUC) emissions in fuel regulations (BREETZ, 2017). In the UK, rewilding advocates took advantage of the policy window opened by Brexit to lobby for the inclusion of rewilding in public policy (THOMAS, 2022). In contrast, the absence of a persistent policy entrepreneur in Indonesia was the explanation as to why the opening of a policy window was left unexplored in the context of climate policy integration (HERNANDEZ; BOLWIG, 2021).

Policy windows may open in a predictable fashion, such as through the scheduled renewal of a program and anticipated changes in the administration, or they may open unpredictably, for instance, if a new problem begins to attract the attention of those individuals within or around government. More than an objective event, participants involved in public policy processes perceive that a window may be open and that the moment is appropriate to increase the priority of a certain topic and, ultimately, promote change (HERNANDEZ; BOLWIG, 2021; KINGDON, 2014).

To seize these opportunities, ROSE et al. (2020) propose four ways in which environmentalists can

approach policy windows: prepare policy relevant outputs in advance so that they are readily available when a predicted policy window opens (capacity to foresee); respond quickly to salient windows by deploying knowledge to decision-makers in a timely manner (capacity to respond); frame issues persuasively for which a window is open (capacity to frame); and persevere and influence incremental changes when no policy window is open (capacity to persevere). These four strategies will be applied in the recommendations for climate policy entrepreneurs in the Conclusion section.

2.1. National context

The Brazilian freight transportation matrix is heavily reliant on road transport: 65% of all cargo transport was on roads, followed by rail (15%), maritime cabotage (11%) and inland waterways (5%) (MINISTÉRIO DOS TRANSPORTES, 2018). This overreliance on road transport is detrimental to national competitiveness, in particular because of the importance of hard and soft commodities to national exports, and the fact that navigation and railways are more suitable means for transporting large volumes of cargo over long distances with economies of scale (TRANSPORT AND ICT, 2017). Cabotage navigation has many advantages. Firstly, cabotage has higher cargo capacity than other modes of transportation and a smaller environmental footprint: 20 g of CO₂ per net tonne kilometre for cabotage, 23.3 g CO₂ for rail and 101.2 g CO₂ on roads (TEIXEIRA et al., 2018). Benefits also include a lower risk of thefts and accidents when compared to road transport, and the longer life cycle of ships when compared to lorries (CAVALHEIRO, 2018; SOARES, 2019; TEIXEIRA et al., 2018). Despite these many benefits, there are still various barriers that need to be overcome to encourage the development of cabotage transportation in Brazil, including the reduced fleet, the excessive bureaucracy in the ports, the quality of ports' infrastructure and entry barriers for new players (SOARES, 2019; TEIXEIRA et al., 2018).

Seeking to reduce entry barriers, Statute No. 14,301/2022 simplifies time chartering of foreign vessels by Brazilian companies from their foreign subsidiaries or from foreign subsidiaries of other Brazilian navigation companies. It also allows new entrants that do not own vessels to charter foreign bareboats - maximum of one bareboat in the first year, two boats after 12 months (2023), three after 24 months (2024) and four vessels after 36 months (2025). From 2026, not owning a fleet will no longer be a constraint to chartering any number of foreign bareboats. Sanctioned by the President of the Republic in January 2022, certain aspects of the Statute still need to be further regulated.

3. Methods

The employment of MSF's concepts followed a qualitative approach, with data collected from secondary sources and in-depth interviews. From secondary sources, the research team collected six official federal government documents which show the modifications to which the original Draft Bill has been subjected in different stages of the legislation process, including the different versions of the document until it was sanctioned by the President and appreciated by Congress.

Secondly, articles from four Brazilian newspapers/newsletters that contain the expression “BR do Mar” (“Road of the Sea”, in Portuguese) were collected. The collection period encompassed January 1, 2019 - when President Jair Bolsonaro and the Minister of Infrastructure took office - and March 18, 2022 - the day after Congress assessed the President of the Republic's vetoes to the Draft Bill.

The four newspapers selected were Folha de São Paulo, Estado de São Paulo, Valor Econômico and Agência Infra. Folha de São Paulo was selected because it was rated number 1 in sales of newspapers in 2020. In this ranking, Estado de São Paulo had the largest print circulation of all newspapers in the country in mid-2021. Valor Econômico was in sixth position, and number 1 among business-focused newspapers (PODER360, 2021). Agência Infra is a specialised news service and a key source of information for the transport sector (AgenciaInfra.com). In total, 259 newspaper articles were analysed.

We chose to analyse newspaper articles since they capture a wider variety of policy actors compared to other alternative sources (NAM; WEIBLE; PARK, 2022). To overcome some of the limitations of this method of data collection, such as the influence of editors in the choice of content, we have selected different newspapers to increase coverage. In addition, to triangulate data, we complemented the newspaper analysis with in-depth interviews with ten stakeholders, representing the government (1), cabotage and transport user associations (3), cabotage ship owning companies (3), consultants (1), shipbuilders (1) and the Merchant Marine Fund's Board (1). Conducted online between March 10 and May 17, 2022, all interviews were recorded, except in two cases when the interviewees preferred to answer the questions in writing.

Documents were coded by two of the authors familiar with the MSF, using software Atlas T.I.. The primary codes used were the main concepts from the MSF (problem, policy, and political streams and policy entrepreneur). The texts were then classified according to the framework's elements as subcodes (Table 1) and according to the participants involved in the events portrayed (e.g. President, public servants, Congress, interest groups, media). A total of 536 passages were coded.

Table 1 – Coding scheme for analysis (elements of the framework)

Elements of the framework	
Problems	Focusing events
	Indicators
	Policy feedback
Political	National mood
	Organised political forces
	Events within government
Policy	Technical feasibility
	Value acceptability
	Anticipation of future constraints
Policy Entrepreneurs	Claim to a hearing
	Political connections and negotiating skills
	Persistency

Source: Kingdon (2014), adapted by the authors.

4. Research findings

Similarly to the coding structure, the research findings were categorised and presented according to Kingdon's elements: problem stream, policy stream, political stream and policy entrepreneur.

4.1. Problem stream

In the documents analysed, numerous problems are highlighted as connected to the need to develop a policy encouraging cabotage transportation. Some of these problems are stressed by **indicators**, giving visibility to these problems. For example, there is evidence that an overreliance on roads to transport cargo in the country affects transportation costs negatively (Estado, 19/12/2020). Reliance on road transportation is also associated with more accidents and deaths. Data from the Statistical Yearbook on Road Safety, from the Ministry of Infrastructure, shows that highways BR-116 and BR-101 registered 1,607 deaths, 516 of which were caused by trucks (Technical Note, 2020).

Problems can also be highlighted by **events, crises and disasters**. In this case, a truck drivers' strike which occurred in May 2018 contributed to make the issue of cargo transportation evident. This strike lasted over a week, causing a large impact on the country's GDP, and igniting discussions about the need to diversify freight transport options and develop cabotage navigation to minimise the impact of future strikes (Folha, 17/08/2019; Folha, 26/10/2020).

4.2. Policy stream

In the policy stream, the interviewees assessed that, since 2015, there have been various movements of stakeholders both from within and outside the government starting to evaluate the existing cabotage public policies and to question the need for greater market opening in the sector. The interviewees attributed these movements partially to a reflection of what was taking place in the United States, where there were discussions about reducing the level of protectionism of the Jones Act, which deals with cabotage and coastwise trade.

In terms of **technical feasibility**, the Draft Bill was constantly refined due to frequent discussions between the Ministry of Infrastructure and the Ministry of Economy before being presented to Congress. One point of debate between the two Ministries referred to which flag (Brazilian or foreign) foreign vessels should carry when operating in the country. The Ministry of Economy preferred that vessels carried the Brazilian flag, claiming that it would be unfeasible to have vessels operating in Brazil with national workers applying the laws from another country. On the other hand, the Ministry of Infrastructure preferred to apply international laws so that operating costs would be reduced (Valor, 24/10/2019). In the end, the two Ministries reached a consensus.

As for **value acceptability**, one value underpinning the Draft Bill was the more liberal approach of the current administration towards economic matters, particularly of the Ministry of the Economy, who defends that growth should be attained via market, private investments and improved business environment rather than through strong state intervention or favouring particular sectors and companies (Valor, 30/09/2020; Valor, 18/05/2021; Estado, 08/02/2022). In a similar fashion, the Ministry of Infrastructure defended improvements in the transport regulatory framework so as to improve the business environment and attract potential (private) investors to infrastructure in Brazil (Valor, 23/07/2020).

With respect to **anticipation of future constraints**, the law seems to suit the unfavourable fiscal situation in Brazil for not increasing public expenses, whilst also seeking to attract private funds. As stated by the Minister of Infrastructure, one of the pillars of the current infrastructure program is the transfer of public assets to the private sector, given that it is not feasible to fill the country's infrastructure gap with limited public funds (Valor, 20/12/2021).

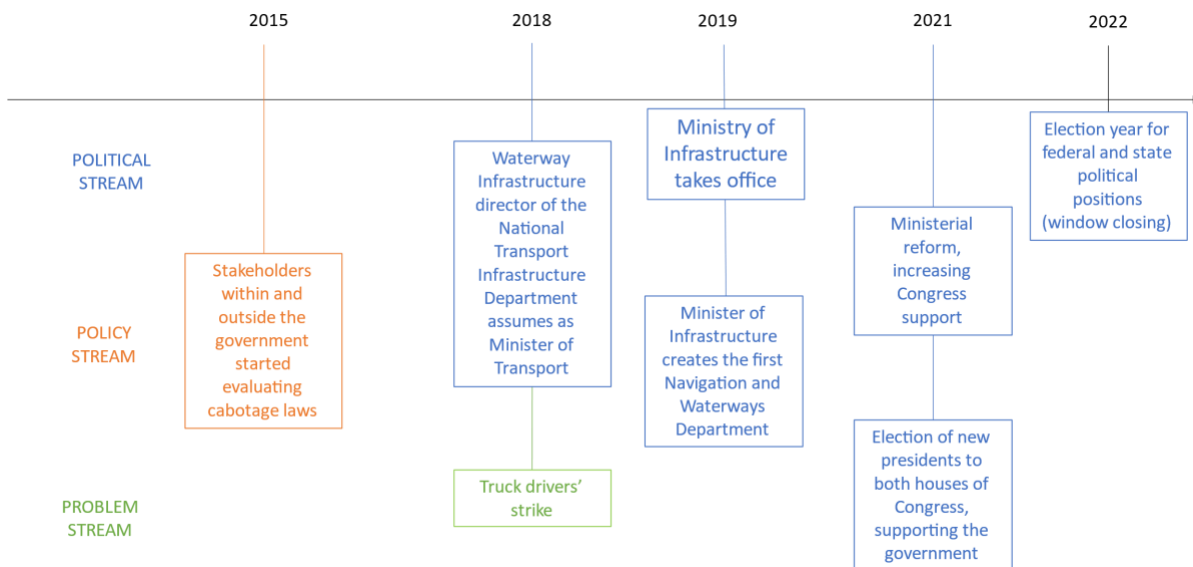
4.3. Political stream

According to the interviews, two main adversaries to the Draft Bill were identified. One was shipbuilding association Sinaval, who was fairly active in discussions with the government about the Draft Bill, largely behind closed doors. The rationale behind Sinaval's engagement was that, once the law was enacted and requirements for navigation companies (including for their main client, the oil industry) to charter foreign vessels were relaxed, the need to build vessels would be reduced to the detriment of the local shipbuilding industry. The second adversarial actor was sector association Logística Brasil. Through facilitating the chartering of foreign vessels, Statute No. 14,301/2022 may negatively affect the business of one of its associates, as navigation companies will be able to charter foreign vessels directly.

In terms of **events within government**, the interviewees recounted important events that occurred within government prior to the proposal of the Draft Bill. One was in early 2018, when the Waterway Infrastructure director of the National Transport Infrastructure Department (DNIT) took office as interim Minister of Transport. In that period, the Minister requested one of their Secretaries to start developing proposals to tackle specific cabotage problems. Another was in January 2019 when the Ministry of Infrastructure took office (in what was previously the Ministry of Transport) and created the Ministry's first navigation department, whose first mission was to improve cabotage policies. That same year, the Department started engaging with various public and private sector stakeholders involved in the cabotage sector, and refined proposals until the first version of the Draft Bill was conceived.

Other events were also relevant to create a more favourable environment for the item to rise on the agenda. If initially, in 2019, the government had difficulty negotiating with Congress, losing votes (Agência Infra, 04/09/2019) and facing the opposition from the President of the Chamber of Deputies (Agência Infra, 26/09/2019), after the election of new presidents to both houses of Congress (Folha, 03/02/2021) and a ministerial reform that sought to increase governmental support among deputies and senators (Folha, 06/09/2021), a more conducive environment for approving priority Draft Bills, as stipulated by the Executive power, was established. Finally, the opportunity for approving structural reforms (political window of opportunity) likely ended in 2021, with 2022 being an election year for federal and state political positions and most discussions revolving towards that end (Folha, 15/09/2021).

Figure 1 – Timeline of relevant events in the problem, policy and political streams



Source: the authors

4.4. Policy entrepreneur

The Minister of Infrastructure was identified as the key policy entrepreneur throughout this whole process, making use of his political connections and negotiating skills until the Draft Bill was sanctioned. Himself and his team engaged with stakeholders from inside and outside the government either to soften up the system or to actively negotiate the terms of the proposal. With the Ministry of the Economy, the Ministries engaged in discussions, eventually reaching an agreement (Valor, 23/10/2019; Valor, 12/03/2020; Valor, 24/10/2019). With the transport sector, the Ministry of Infrastructure gathered formal support to the Draft Bill from associations, federations, unions and other sector representatives, including the Brazilian Association of Port Terminals (ABTP) (Estado, 08/10/2020). With the Chamber of Deputies, throughout the voting procedures, the Minister called leaders from parties allied to the current administration and from independent parties to ensure that the document would be approved with no major changes (Valor, 09/12/2020). With the Senate, members of the Ministry of the Infrastructure spent a full day in the Senate meeting to discuss the Draft Bill as well as amendments proposed by some senators (Estado, 18/06/2021), while the Minister himself spent an entire morning in the Senate negotiating the necessary conditions for the proposal to move forward (Agência Infra, 10/07/2021). Finally, with cabotage users, the Minister of Infrastructure sought support from the companies and sectors that employ or could employ cabotage

services, for instance, obtaining explicit support from the National Association of Cargo Transport Users (Anut) (Folha, 12/11/2020).

5. Discussion

According to our analysis of newspaper articles and interviews, there were several factors which have contributed to raising the importance of cabotage navigation as an issue worthy of attention and promoting the development of this Draft Bill until it was sanctioned by the President.

Global discussions around cabotage policy mostly rely around the level of openness of domestic markets to foreign ships. Given Brazil's initial position of an essentially closed regime, in line with international practice (PAIXÃO CASACA; LYRIDIS, 2018), any measures to come out of the policy stream would likely refer to different ways of opening up the market. Once a clear problem emerged (overreliance on road transport), a policy developed inside the government that facilitated the chartering of foreign vessels, within the values that underpin the administration (e.g. economic liberal views, economic development via private investments) and the fiscal constraints of the Brazilian context, was indeed attached to this problem.

Changes in cabotage policy were also made possible due the repercussions caused by the manifestations of an interest group (truck drivers, who went on strike in 2018) trying to call for changes in another realm of transportation policy (high fuel costs and low road freight prices). By drawing (more) attention to the country's vulnerability in its transport matrix, due to the economic impacts of the strike, this event elevated the issue to a national concern, raising the status of the overreliance on road transport from an issue to a problem worthy of action. The events surrounding the proposal and approval of Statute No. 14,301/2022 seem to confirm Kingdon's (2014) suggestion that focusing events, crises and disasters are particularly relevant in transport policy because the field (especially cargo transport) tends to be less visible to the general public.

The opening of a window of opportunity by compelling events and indicators in the problem stream as well as by changes in the configuration of the Executive power (new Ministers of Transport and then Infrastructure making navigation a priority to address) thrust cabotage policy onto the decision agenda. Once at this stage, relevant actors bargained for a solution, first within the federal administration (with disputes between the Ministries of Infrastructure and Economy) and later in Congress.

Although affected by external events, such as the covid-19 pandemic, such a window of opportunity

lasted open for a long enough period of time to allow for the necessary adjustments to be made, and the Draft Bill was eventually approved in the Chamber of Deputies and Senate before 2022's electoral concerns could close the window. Certain political events also contributed to keeping the window open and approving the Draft Bill, including changes in presidency in both the Chamber of Deputies and the Senate, more aligned with the government's priorities, and a ministerial reform, nominating representatives from other political parties for governmental positions.

The persistency and negotiating skills of the Minister of Infrastructure and his technical staff likely helped to keep the issue high on the decision agenda. Since the conception of the Draft Bill throughout the whole legislative process, the Minister himself and his team engaged with stakeholders from inside and outside the government negotiating the terms of the proposal, gathering formal support, clarifying doubts about the Draft Bill and ensuring that it would be approved.

As suggested by Kingdon (2014), the high level of fragmentation in the transport sector makes it more conducive for abrupt changes on the agenda. In this sense, the authoritative position (claim to a hearing) of the policy entrepreneur within the government may be an additional factor helping to sustain the priority character of the Draft Bill through the years. Nonetheless, the proposed changes could have faced smaller opposition from interest groups (e.g. from the domestic naval building industry) if they excluded the oil and gas sector as beneficiaries of foreign chartering.

Therein lies a potential lesson for policy entrepreneurs before advancing with any proposals within such a niche subject as the transportation sector.

Climate change does not seem to be the main driver behind changes in policies affecting transportation and logistics in Brazil. However, considering the prominent position of climate change in international discussions, policy entrepreneurs could benefit from applying a climate lens in all policies under development (including transport policies) to check whether there could be opportunities for anticipating the opposition of emissions-intensive sectors, building a coalition of organised interests with climate concerns and/or attracting international climate finance. In the Conclusion section, we reflect on possible implications from this research for climate policy entrepreneurs.

6. Conclusion and implications for climate policy entrepreneurs

This research found that Kingdon's MSF was useful in analysing the legislative process in an emerging market with a democratic society and a presidential system. MSF helped to analyse and

identify which factors within the different streams contributed to the development and approval of the Statute.

The topic of climate change did not play a large part in this legislative process, with only a few mentions in the newspapers, mostly in opinion pieces, of the role of cabotage in contributing to reduce GHG emissions in transportation. The climate policy community was not involved in discussions on the development of the Statute, and the inclusion of the oil and gas sector not only enhanced political opposition to it, but also diminished the environmental appeal of the proposal given cabotage's role in transporting fossil fuels. Based on ROSE et al. (2020)'s framework to approach policy windows, we reflect on some of the implications from our research to those actors involved in public policy processes and interested in advancing the low-carbon transition:

- **Capacity to foresee:** those willing to improve the country's policy and regulatory framework (e.g. government's career servants, academics) could initiate the development of policy proposals in conjunction with interested parties, so that a solution may be ready and available once a window of opportunity opens – for instance, when there is a more favourable political atmosphere or when a problem (that this proposal could help to solve) rises on the agenda. For example, international cooperation agencies have an opportunity to contribute to low-carbon policy development in emerging markets (see FGVCES et al., 2021 for selected examples), helping to build ready-made policy solutions that will be available once a window of opportunity opens.
- **Capacity to respond:** Whilst certain political events, in particular presidential and legislative elections (which coincide in Brazil) are fairly easy to predict, turnover of key personnel within government during an administration may also happen and, consequently, open a window of opportunity for policy change. Questions of jurisdictions are likely to be a feature of any discussions related to climate change, for instance, given the responsibilities of the Ministry of the Environment within this topic, but also other Ministries (such as the Ministry of the Economy) and regulatory agencies. Therefore, it is vital that climate policy entrepreneurs are attentive to the political movements in relevant Ministries, Ministry departments and agencies, engage with them and map their interests and openness for receiving low-carbon policy briefs and policy recommendations, especially during favourable moments to discuss low-carbon policies, such as prior to international climate-related events (e.g. Conference of the Parties – COP).

- **Capacity to frame:** Policy-makers could attach policy proposals to environmental or social problems to help attract public attention to activities and sectors that are relatively insulated from emotional content as it is the case of transport. This could also help build a wider coalition of policy supporters through attracting interest groups with climate concerns, including, for example, actors and companies concerned and publicly committed to addressing climate change and that would directly benefit from the implementation of the policy proposals, e.g. through reaching their voluntary climate change targets.
In addition, policy-makers and entrepreneurs could apply a climate lens to public policies under development in order to anticipate the opposition of emissions-intensive sectors; identify opportunities to influence (other) government officials and Congress members; introduce climate-related topics in ongoing, sectorally-driven, policy processes; and identify opportunities for attracting international climate finance for policy implementation.
- **Capacity to persevere:** for discussions in fragmented and niche sectors such as transport, a prospective policy entrepreneur has to display great persistency and will to invest time and resources, engaging with government representatives until a window of opportunity opens.

With regard to future studies, it would be interesting to analyse other case studies of low-carbon sectorally-driven policies in which the climate component has been effectively incorporated, examining whether the strategies proposed above were employed and whether they facilitated the approval and enactment of the policy. It would also be interesting to further analyse the role of rhetorics (capacity to frame) in public policy processes and to what extent it can contribute to give prominence, in the media and among stakeholders, to policies under development.

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References

AGENCIAINFRA.COM. **Agência Infra**.

ALMEIDA, L. DE A.; GOMES, R. C. Processo das políticas públicas: revisão de literatura, reflexões teóricas e apontamentos para futuras pesquisas. **Cadernos EBAPE.BR**, v. 16, n. 3, p. 444–455, set. 2018.

BREITZ, H. L. Regulating carbon emissions from indirect land use change (ILUC): U.S. and California case studies. **Environmental Science and Policy**, v. 77, p. 25–31, 2017.

CAIRNEY, P.; JONES, M. D. Kingdon's Multiple Streams Approach: What Is the Empirical Impact of this Universal Theory? **Policy Studies Journal**, v. 44, n. 1, p. 37–58, fev. 2016.

CAPELLA, A. C. N. Perspectivas Teóricas sobre o Processo de Formulação de Políticas. **Revista Brasileira de Informações Bibliográficas em Ciências Sociais**, p. 87–124, 2006.

CAVALHEIRO, P. **Transporte por cabotagem: Análise comparativa entre os modelos brasileiro e europeu**. [s.l.] Universidade de Caxias do Sul, 2018.

CNT. **Pesquisa CNT Perfil dos Caminhoneiros 2019**. Brasília: [s.n.]. Disponível em:

<<https://www.cnt.org.br/perfil-dos-caminhoneiros>>.

CNT. **Perfil dos Caminhoneiros: idade média da frota de caminhões passa dos 15 anos**.

Disponível em: <<https://www.cnt.org.br/agencia-cnt/idade-media-frota-caminhoes-passa-15-anos-cnt-perfil-caminhoneiros>>. Acesso em: 27 jun. 2022b.

FGV CES et al. **International Climate Finance and support to national climate policy processes in emerging markets**. [s.l.: s.n.]. Disponível em:

<https://www.diw.de/documents/dokumentenarchiv/17/diw_01.c.821395.de/snapfi_intl_climate_finance_2021.594220.pdf>.

FRIEDMAN, E.; BREITZER, R.; SOLECKI, W. Communicating extreme event policy windows: Discourses on Hurricane Sandy and policy change in Boston and New York City. **Environmental Science & Policy**, v. 100, p. 55–65, out. 2019.

GONCALVES, L.; DE SANTO, E. M. Unpacking the process: how agenda-setting theory explains the case of creating large scale marine protected areas in Brazil. **Environmental Politics**, p. 1–20, abr. 2021.

GOVERNMENT OF BRAZIL. **Brazil's Nationally Determined Contribution (NDC)**. [s.l.: s.n.].

Disponível em: <[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brazil First/Brazil First NDC \(Updated submission\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brazil%20First/Brazil%20First%20NDC%20(Updated%20submission).pdf)>.

HERNANDEZ, A. L. G.; BOLWIG, S. Understanding climate policy integration in the global South through the multiple streams framework. **Climate and Development**, v. 13, n. 1, p. 68–80, jan. 2021.

JANN, W.; WEGRICH, K. Theories of the Policy Cycle. In: MILLER, G. J.; SIDNEY, M. S. (Eds.). **Handbook of public policy analysis: theory, politics, and methods**. Boca Raton, FL: CRC Press, 2007. p. 43–62.

JOHN, P. Is There Life After Policy Streams, Advocacy Coalitions, and Punctuations: Using Evolutionary Theory to Explain Policy Change? **Policy Studies Journal**, v. 31, n. 4, p. 481–498, nov. 2003.

JONES, M. D. et al. A River Runs Through It: A Multiple Streams Meta-Review. **Policy Studies Journal**, v. 44, n. 1, p. 13–36, fev. 2016.

KINGDON, J. W. **Agendas, Alternatives, and Public Policies**. 2. ed. Harlow: Pearson, 2014.

MINISTÉRIO DO MEIO AMBIENTE. **Diretrizes para uma Estratégia Nacional para Neutralidade Climática**. [s.l.: s.n.]. Disponível em: <<https://www.gov.br/mma/pt-br/diretrizes-para>>

[uma-estrategia-nacional-para-neutralidade-climatica.pdf/](#).

MINISTÉRIO DOS TRANSPORTES. **Política Nacional de Transportes - Caderno das Estratégias Governamentais**. Disponível em:

http://portaldaestrategia.infraestrutura.gov.br/images/PNT/caderno_das_estrategias_governamentais_versao_2018.pdf.

NAM, A.; WEIBLE, C. M.; PARK, K. Polarization and frames of advocacy coalitions in South Korea's nuclear energy policy. **Review of Policy Research**, 19 fev. 2022.

PAIXÃO CASACA, A. C.; LYRIDIS, D. V. Protectionist vs liberalised maritime cabotage policies: a review. **Maritime Business Review**, v. 3, n. 3, p. 210–242, 2018.

PIVO, G.; HENRY, A. D.; BERGER, L. Essential elements at play in local environmental policy change: A guide for the perplexed. **Environmental Science & Policy**, v. 106, p. 240–249, abr. 2020.

PODER360. **Grandes jornais registram queda de 12,2% na circulação impressa no 1º semestre**. Disponível em: <https://www.poder360.com.br/brasil/grandes-jornais-registram-queda-de-122-na-circulacao-impressa-no-1o-semester/>. Acesso em: 26 fev. 2022.

RAWAT, P.; MORRIS, J. C. Kingdon's "Streams" Model at Thirty: Still Relevant in the 21st Century? **Politics & Policy**, v. 44, n. 4, p. 608–638, ago. 2016.

ROSE, D. C. et al. Policy windows for the environment: Tips for improving the uptake of scientific knowledge. **Environmental Science & Policy**, v. 113, p. 47–54, nov. 2020.

SEEG. **Análise das emissões brasileiras de gases de efeito estufa e suas implicações para as metas climáticas do Brasil: 1970-2020**. São Paulo, SP: [s.n.].

SHIBUYA, E. "Roaring Mice Against the Tide": The South Pacific Islands and Agenda-Building on Global Warming. **Pacific Affairs**, v. 69, n. 4, p. 541, 1996.

SOARES, J. A. B. **Cabotagem como complemento na matriz de transportes: uma análise dos desafios para seu crescimento no sistema de transportes brasileiro no século 21**. [s.l.] Instituto Universitário de Lisboa, 2019.

TEIXEIRA, C. A. N. et al. **Nevegação de cabotagem brasileira**: BNDES Setorial. [s.l.: s.n.].

THOMAS, V. Actors and actions in the discourse, policy and practice of English rewilding. **Environmental Science & Policy**, v. 132, p. 83–90, jun. 2022.

TRANSPORT AND ICT. **Railway Reform: Toolkit for Improving Rail Sector Performance**. Washington, DC: [s.n.]. Disponível em:

[https://ppiaf.org/ppiaf/sites/ppiaf.org/files/documents/toolkits/railways_toolkit/index.html#:~:text=Railway Reform%3A Toolkit For Improving Rail Sector Performance&text=This Railway Reform Toolkit aims,and execution of railway reforms.>](https://ppiaf.org/ppiaf/sites/ppiaf.org/files/documents/toolkits/railways_toolkit/index.html#:~:text=Railway%20Reform%3A%20Toolkit%20For%20Improving%20Rail%20Sector%20Performance&text=This%20Railway%20Reform%20Toolkit%20aims%20and%20execution%20of%20railway%20reforms.).

UN AFFAIRS. **Brazilian President commits country to climate neutrality by 2050**. Disponível em: <https://news.un.org/en/story/2021/09/1100472>. Acesso em: 21 set. 2021.

WATANABE, P. Brasil não cita nova meta climática para 2030 em carta para a ONU. **Folha de São Paulo**, 10 nov. 2021.