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Brazilian Foreign Policy and international agreements in the area of energy (1990-2016): mapping partners and sectors involved¹

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Abstract: This article aims to analyze the agreements and other international acts signed by Brazil in the area of energy, in a period that includes the governments Fernando Collor, Itamar Franco, Fernando Henrique, Lula, Dilma Rousseff and Michel Temer (1990 to 2018). Thus, at first, it was identified the actors envolved (countries and international organizations) in those established agreements. Secondly, it was verified which resources/sources have been involved in the bilateral and multilateral initiatives evaluated. Therefore, in a further analyzes it was possible to characterize how the different Brazilian governments promoted the expansion of energy cooperation.

Keywords: Energy Security; Intergovernmental cooperation; International agreements; Foreign policy; Brazil

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1. INTRODUCTION

Brazil, as well as other states and international organizations, is repeatedly confronted with the need to preserve and increase its energy security. Energy security is considered a strategic issue in the most different spheres of governance, which is related to a varied set of initiatives that aims to ensure the continuous and adequate flow of energy that enables the maintenance and sustainable development of a locality, country, region or yet the planet as a whole. The challenges faced involve the whole process that runs through the energy chain, considering since the extraction from production and distribution, untill the final disposal of energy consumption (see PAIVA, 2015, SANTOS, 2015, FOGUEL, PAIVA, MEDEIROS, 2014).

In fact, access to energy becomes a central and relevant subject of national economies and international agencies, since it represents, among other aspects, a notable strategic factor in the creation of agreements and other bilateral and multilateral acts among actors in the international aren. In general, the aim of those agreements is basic to promote the mutual interest of the actors, which guarantee the human survival and the natural development in different units of governance, from the local to the global level. The demands in this regard involve issues of a political, military, technological, economic, social and environmental nature, among others, which requires, in certain cases, cooperative actions of an international scale (see CASTRO, ROSENTAL, 2016, CORRELJE, LINDE, 2006).

Despite of the relevance of domestic initiatives in energy security, this article presents an analysis of the agreements and other international acts signed by the Brazilian governments from Collor de Mello to Michel Temer (1990 to 2018). The major intention is to examine the actoracross and the energy sources / resources involved in such acts, across the different governments, in order to characterize the performance of each of them.

According to the data collected on the website of Brazil's International Affairs (DAI-MRE), It was verified, from the mentioned platform, called "Concordia Itamaraty", that hundreds of acts that directly or indirectly involve the area of energy were signed in the governments of the presidents Fenando Collor de Mello (1990-1992), Itamar Franco (1992-1994), Fernando Henrique Cardoso (1995-2002), Luís Inácio Lula da Silva (2003-2010), Dilma Roussef (2011-2016) and Michel Temer (2017-2018). The considerable

number found about international initiatives in this database indicates the relevance of the subject and the pertinence of a more fruitful examination of them in order to better understand their nuances.

The text has three more sections besides this introduction. In the next section the actors with whom each government has signed these agreements are analyzed. The third part examines the priority resources / sources that prevailed in the established acts, considering the different governments. In the last part, some conclusions are drawn that derive from the studies made in the previous sections, without prejudice to others that have been evidenced and are arranged throughout the text.

2. Signed acts and partners involved

The collected data on the "Concordia Itamaraty" of the Ministry of Foreign Affairs (DAI-MRE)'s platform, using the keyword "energy" as a search parameter, and also considering the period that includes since 1990 to 2018, resulted in 500 (five hundred) observed bilateral and / or multilateral acts signed by Brazil with others international partners⁵. The degree of relevance of the energy theme in the agreements varies and is sometimes the main topic or secondary theme of the collaboration agenda between the countries involved. These acts, in turn, vary from those still in force, not in force and in process. In general, the initiatives found involved treaties, agreements, protocols of intent, adjustments, joint declarations, communiqués, programs, memoranda of understanding or covenants⁶.

Among the 500 acts identified, the number of those signed during the total period of each government has the following provision:

a) 48 acts in three years of Collor de Mello's government (1990-1992);

b) 22 acts in the two years of Itamar Franco's government (1992-1994);

⁵ The data presented on the number of acts signed by Brazil throughout this text may not be all conclusive. All the research presented here is limited to sketching a panorama of Brazilian cooperation in energy matters based on the information provided by the platforms access of the Brazilian government international acts.

⁶ Due to the limitation of the pages of this work, it will not be possible to describe the accurate meaning of each type of act. A definition can be found on the federal government website, at the following address: <<u>http://www.brasil.gov.br/governo/2012/05/atos-internacionais></u>. Throughout this study, acts, agreements and treaties will be used as general denominations, as a way of referring to the commitment made by Brazil with other partners (countries or international organizations).

c) 64 acts in eight years of FHC's government (1995-2002);

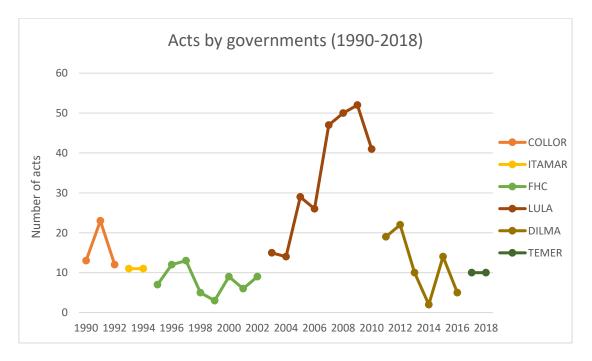
d) 274 acts in eight years of Lula's administration (2003-2010);

e) 72 acts in the six years of Dilma's Government (2011-2016).

f) 20 acts in two years of Temer's Government (2017-2018).

Examining the particular quotas based to the individual performance of each government, in relative and absolute terms, there is clearly greater profusion of initiatives during the consecutive terms of Lula's administration, which alone accounted approximately 54% of all international adjustments during the years 1990-2018. As regards of the total number of treaties signed, that government is followed, in decreasing order, by Dilma Rousseff, Fernando Henrique, Collor de Mello, Itamar Franco and Temer. In proportional terms, considering the amount of acts signed and the years of each government (acts signed / period in power), firstly, there is again the mandate of President Lula in the first place. Then, in descending order, it is as follows: Fernando Collor, Dilma Rousseff, Itamar Franco, Michel Temer and, finally, Fernando Henrique Cardoso. It can be seen that the paromana changes when we take into account the relation between the number of acts / years in power, when compared to the total number of acts signed by each government, especially considering the Collor de Mello's rise and FHC's fall.

The graphic below summarizes the individual trajectory of the actions in terms of the presidential governments:



Source: prepared by the authors.

Returning to the analysis exclusive on the performance of each government, it becomes possible to detail their specific performance and to better characterize the partnerships established in each period.

The trajectory of the Collor's government (1990-1992) indicates that there were thirteen agreements signed in 1990, twenty-three in 1991 and twelve in 1992, all exclusively bilateral. Altogether, twenty-four partners were counted, among countries and international organizations, from the American, European, African and Asian continents. Focusing on this general picture, the acts established with of the American continent's partner stand out, which represented 62%, with about 54% of these being from partners of Latin American countries (26/48). In relation to the main partners, we have cooperation mostly between Brazil and Argentina (10 agreements), followed by Bolivia (6 agreements) and Uruguay (4 agreements), those were the protagonists. These numbers point to the important role that the South American environment played in the agreements signed during the Collor's administration.

In relation to the brief two years of Itamar Franco's government (1993-1994), assumed after the impeachment process of the then President Collor, it is observed the continuity of a greater direction of actions of the Brazilian government towards countries inside the subcontinental region, with almost 60% of the acts signed with its Latin American environment (13/22). In addition, 5 agreements were signed with European countries (22%) and 4 agreements with Asian countries (18%). The main partners during the Itamar Franco period were: Bolivia with 4 treaties, followed by Paraguay, Argentina and China, contemplating 3 each. In the same way as the previous one, in this period only bilateral acts were recorded. However, it is the only presidential term, among all analyzed, with exclusively countries as partners. There was no mediated agreement with any international organization, whether governmental or non-governmental character,

During the period that succeed the brazilian government under Fernando Henrique Cardoso's administration (1995-2002), altogheter, 64 (sixty-four) acts involving energy were established. Of these, 63% were signed with American partners, 20% with European partners, 8% signed with Asian partners and, lastly, 3% with African partners. The main partners of this government were Argentina with 10 agreements signed, Bolivia with 7 agreements and Germany, Uruguay and the World Meteorological Organization

representing 4 agreements each. Unlike the previous government of Itamar Franco, during the mandate of FHC, agreements were again established with international organizations, although energy did not figure as the main theme. In this government, it's highlighted the partnership envolving negotiations with the Organization of American States (OAS) and the Community European Union (EU). The resumption of Argentina's role, which did not occur in the Itamar Franco administration, and the persistence of Bolivia as a priority partner during the first three mandates analyzed (1990-1998) were also observed.

During the two consecutive mandates of Lula's government (2003-2010) there is a greater diversity of actors and regions involved. However, there is still a greater focus on diplomacy with the countries of South America, also emphasing on the rise of Central America and the presence of North America, all of which accounted for more than half of all the agreements reached during the period under review. The Lula's government is consecrated as the first government in the history of Brazil to establish energetic character relations with countries of all the continents. In general terms, 39 agreements were signed with European countries, 37 with Asian countries, 35 with African countries and 1 with Australia (the only country in Oceania). Again, the main energy partners were Argentina (22 acts) but now followed by Peru (13), Germany (11 acts), Venezuela (10), Costa Rica (10), Uruguay and Paraguay (9), China and Bolivia (8).

Brazil during the government of Dilma Rousseff (2011-2016) computed, out 72 total agreements signed in 6 years of administration. Of these, 24 acts carried out with American countries, 13 agreements with South American countries, followed by 19 agreements with European countries. Among the main actors observed, Germany (9 acts) was the main partner for the first time, which was already highlighted in previous governments. There are two countries which appear as second main partner, one of which is the usual Argentina (6 acts) and the other Russia (6 acts), a novelty compared to previous periods.

Finally, during the two years of Michel Temer's government (2017-2018), in comparative terms, it was the least at establishing agreements with countries of its regional environment. The government reiterates and finalizes the diplomatic assays on energy integration initiated in previous management on two fronts: it drastically reduces the trajectory of traditional partnerships with American countries / organizations and reaffirms the leading role of Germany as the preponderant partner in Brazil's external energy relations . Of the 20 (twenty) acts signed in the current period almost half were

established with European actors, totaling 9 (acts) with the aforementioned region. In relation to the actors of its regional environment, only 1 (one) act was signed with countries of South America, Chile, of the 2 (two) made with countries of the American continent. The main privileged partnerships were, again, Germany (4 acts), followed by the United Nations Environment Program (UNEP) (3 acts) and Russia (2 acts).

In general, the partners with whom Brazil established the largest number of international treaties during the period 1990 to 2018 were the following: Argentina (51 agreements); Germany (31 agreements); Bolivia (25 agreements); Uruguay (20 agreements); Paraguay (16 agreements) and Venezuela (16); China (16 agreements); Russia (13 agreements). The chart below represents the distribution of agreements entered into with these major partners in each government period, demonstrating how they varied from one to another.

		MAI	N PARTNERS	HIPS		
Temer's government Dilma's government Lula's government FHC's government Itamar's						
government Collor's government						
Collor's		5	10	15	20	
Collor's government) Collor's	5 Itamar's	10 FHC's	15 Lula's	20 Dilma's	Temer's
Collor's government						
Collor's government	Collor's	Itamar's	FHC's	Lula's	Dilma's	Temer's
Collor's government	Collor's government	Itamar's government	FHC's government	Lula's government	Dilma's government	Temer's government
Collor's government	Collor's government 0	Itamar's government 1	FHC's government 3	Lula's government 5	Dilma's government 6	Temer's government 2
Collor's government Rússia China	Collor's government 0 1	Itamar's government 1 3	FHC's government 3 1	Lula's government 5 8	Dilma's government 6 3	Temer's government 2 0
Collor's government Rússia China Venezuela	Collor's government 0 1 0	Itamar's government 1 3 1	FHC's government 3 1 5	Lula's government 5 8 10	Dilma's government 6 3 0	Temer's government 2 0 0
Collor's government Rússia China Venezuela Paraguay	Collor's government 0 1 0 3	Itamar's government 1 3 1 3 3	FHC's government 3 1 5 1	Lula's government 5 8 10 9	Dilma's government 6 3 0 0	Temer's government 2 0 0 0
Collor's government Rússia China Venezuela Paraguay Uruguay	Collor's government 0 1 0 3 4	Itamar's government 1 3 1 3 3 2	FHC's government 3 1 5 1 4	Lula's government 5 8 10 9 9	Dilma's government 6 3 0 0 0 3	Temer's government 2 0 0 0 0 0

Source: prepared by the authors.

In the next section will be analyzed other aspects referring to the acts signed by Brazil in the matter of energy from 1990 to 2018.

3. Agreed Acts and Resources / Sources Involved

Energy security throughout the different governments has always been a fundamental issue in foreign policy and has therefore always acted as a guide to agendas that fostered national interests for the culmination of domestic development, closely linked to the energy sector. Since the discovery and dissemination of fossil fuels as energy sources until the current transition period to the uses of alternative policies, in view of the new challenges for the maintenance of energy security, the resources and technologies used for the production and preservation of energy have been diverse (BASSO, 2018).

Understanding, at the outset, how each government privileged a particular energy resource is also understand, within a broader framework of analysis, the national needs in the matter in question in face of the time examined - as well as its underlying dilemmas. In addition, it may lead to the characterization of the behavioral profile of each government, in the formulation of its treaties, through bilateral and multilateral relations, evidencing the preferences and the designs behind each management analyzed.

In these terms, the concern of the national foreign policy on energy sometimes inclined towards the peaceful use of nuclear energy, as it prevailed during the Collor administration in the early 1990s, as it tended over time to adapt itself to the new models that intended to be "sustainable". On the other hand, there is a signalization in the implementation of bioenergy in the energy matrix, in addition to other alternative and renewable sources, as characteristic of the Lula and Dilma governments. The specific and directed analysis of each presidential administration, regarding the resources or energy sources prioritized, can thus indicate the political, strategic and energetic panorama adopted by Brazil in each current period.

According to the data collected on the "Concordia Itamaraty" platform, the Collor's government (1990-1992) had as its main focus on the 13 international acts in which interest in scientific and technical cooperation in nuclear matters prevails. It then emerges as the main resource the fossil fuels energies, with 10 acts involving the strictly

relations around oil, hydrocarbons and natural gas. Soon thereafter, 7 acts in which electricity is specifically mentioned, followed by water and hydroelectric resources with 6 established acts. Finally, it is worth mentioning the 6 acts in which renewable and alternative energy sources are mentioned, however without specifying exactly what they would be.

The brief Itamar Franco's government (1993-1994), similar to the previous government, developed initiatives following the same tendency to prioritize nuclear energy, this time with 6 agreements, emphasizing the peaceful use of such resource. However, fossil fuels was indicated in 9 agreements, which hydrocarbons, natural gas and / or petroleum were the main targets. Once again, the same framework of the previous government remains, when the relevance of cooperation in the hydroelectricity field (5 agreements) and electricity in general (4 agreements) is verified. Lastly, there are also three agreements mentioning the interest in renewable energies, including biomass, solar energy and wind energy. In the mandate of Itamar Franco renewable sources are specified, unlike what happened Collor government.

Fernando Henrique Cardoso (1995-2002) adopted, in general terms, an energy agenda in international treaties in the same way as the governments that preceded him. Similar to the last administration, during the mandate of FHC had directed a greater involvement in initiatives that prioritize the exploitation of fossil resources, such as oil and natural gas, foreseen in 26 of the acts signed. Then comes the disarranged electric power, which represented 17 of the total agreements signed at the time. In third place, it remains the initiatives focused on nuclear energy in 13 of the acts, followed by hydroelectric plants, with 11 acts. The negative aspect of the FHC government is the apparent low relevance given to alternative and / or renewable sources, observing that in 8 years of government, it has committed itself in only 6 agreements as a central matter of cooperation.

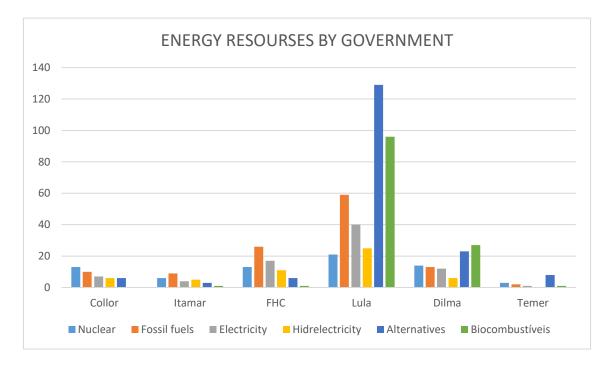
The period that comprised the Lula's government (2003-2010) represented the greater dynamism interim of the Brazilian energetic interests in established international acts. It was significantly more abundant in diversity of resources than the others. In this case, there was a significant increase in acts closely linked to renewable energy sources during this government. The interest in initiatives involving energy derived from biomass, biodiesel, or biofuels / bioenergy was cited in 129 agreements. The specific reference to the term "renewable energy" was listed in 49 agreements, and 6 others specified the use

of wind energy and 6 others of solar energy. Next, it comes the fossil fuels, with 24 acts envolving interest in oil cooperation, plus 20 acts of cooperation in the area of natural gas, and 13 specifically cite the area of hydrocarbons. Electricity also appears as a relevant strategic resource on the agenda, highlighted in 40 acts. Finally, the hydroelectric plants have been reported in 25 acts and the reference to nuclear energy in 21 total acts.

The Dilma Rousseff's government (2011-2016), in the context of international energy agreements aimed at strategic development, has also favored actions pertinent to alternative renewable energies. Among these acts, biofuels, wind energy and solar energy were mentioned together in 50 agreements. Following next, nuclear power resumes its position as a matter of great influence in the Brazilian agenda, with a record of 14 acts. In sequence, the area of electric energy again appears in 12 acts, and the area of hydroelectric energy or water resources in 6 acts. Finally, the use of hydrocarbons, oil and gas in general was targeted in 13 of the total agreements.

The two years of Michel Temer's Government (2017-2018) adopted a succinct stance on foreign policy in the area of Energy Security. It followed the trend demonstrated by the two previous governments to the inclination to cooperation in terms of alternative and renewable energy resources, expressing this interest primarily in 8 total acts, in addition to another 1 regarding the integration of bioenergy. Continuing, there were 3 mentions on nuclear energy, 2 mentions for fossil fuels, followed, finally, to only 1 mention corresponding to the electric energy.

The chart below allows a brief demonstration of the allocated and privileged energy resources in general during the management of the six governments examined.



Source: prepared by the authors.

A latent issue in the chart above is the high importance that renewable energies have acquired in the Brazilian international agenda over the years.

4. Conclusion

The present article demonstrated an analytical synthesis on the conduct of Brazilian foreign policy in energy since the government of Fernando Collor de Mello to the Michel Temer's government, a period of 29 years (1990-2018). The analysis remained concentrated in maping the agreements established by Brazil and between other countries and / or international organizations, observing the actors and resources involved. The analysis sought to observe trends throughout the period under review, and to verify the peculiarities of each of the governments.

As a result, it was observed that energy security seems to have considerable relevance during the governments studied, based from the analyzes of the actors and resources, that tends to be similar in some cases and in others ones different, that at a final panorama caracterizes each particular administration. In addition, it was also possible to show, to some extent, the relationship of each analyzed period with the energy material demand, revealed through the international acts examined.

The national foreign agenda in the different governments seems to have clearly favored the rapprochement of Brazil with its regional environment, especially partnerships with other South American nations in several sectors, but which has changed and diversified in different periods. As an important conclusion, a possible tradition of diplomatic rapprochement in the area between Brazil and Argentina along the different governments, as well as other regional partnerships that have gained prominence, such as Bolivia, Uruguay and Paraguay, emerges as an important observed energetic demand. Other partnerships have been the target of continued efforts by the Brazilian government, such as Germany, the main partner of the European continent, but also countries participating in the BRICS summit, such as Russia and China.

Finally, it is possible to emphasize the prevalence of certain resources / sources as main objects of the agreements signed in this analyzed period. Indeed, during the Brazilian governments that marked the 1990s - Fernando Collor, Itamar Franco and Fernando Henrique Cardoso - the so-called neoliberal era, there is a recurrent preference for partnerships that foster relationships involving fossil fuels (petroleum, hydrocarbons, gas, etc.) and the use of nuclear energy in the energy matrix.

The decades following the beginning of the 2000s witness a turnaround in favor of renewable sources na politics with the use of alternative, even sometimes unspecified, energy arrangements. The debate based on the model of production and sustainable energy consumption, linked to the concern to mitigate the harmful effects of this energy cycle on the ecosystem, end up crossing the rearrangements of political interests in the last analyzed periods.

This may suggest that cooperation in energy security is not only aimed at meeting the internal demand for energy, but also the fight against the negative externalities derived from this sector. This also demonstrate the pertinence of dealing with energy security in a multidimensional perspective, given the variety of objectives and interests that the theme arouses.

It is hoped that these conclusions and other issues raised in the present study could serve primarily as a starting point for further analysis of international cooperation in the energy security's area. And, in this sense, to consolidate in Brazil a network of researchers on this matter.

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