

Brazil: a world energy superpower?

Brasil: uma superpotência energética mundial?

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Introduction

The exacerbated energy consumption growth both in industrialized countries as in underdeveloped countries has created a strong wave in the search for renewable energies, especially due to the increasing international concern regarding the depletion of the main energy source of the modern world, the petroleum. In this way, renewable energy sources have gained importance in the international arena, in particular regarding to biofuels. In addition, there is also the fact that the main oil natural resources in the world are located in places with a degree of sociopolitical instability, as it is possible to observe in the Middle East, which can cause fears related to instability in oil supply and in prices. Also, the international community needs to find alternative sources to oil once it is responsible for most of the emissions of pollutant gases in the atmosphere, which alter the climate of the planet. For those reasons, the discussion of clean energy sources is brought up.

It can be said that climate change is the result of socioeconomic structure of our current modern society in terms of consumption and production. In this way, such factors show to international actors the need to expansion of renewable energy sources, intending to reduce the greenhouse effects in the atmosphere and ensuring new ways of energy access, which is an indispensable condition to both industrialized and industrializing countries. However, it is essential to highlight that the retention of energy sources, such as oil results to be, is a mechanism of power and wealth creation for their holders.

There is a hesitation of developed countries, especially those which possess multinational oil companies, to let third world countries develop capacity in relation to biofuels and become active agents in the international energy policy. Beyond the implications of political games mentioned above, other determinants gain emphasis on the international scene: the possibility of planting for the production of biofuels eventually competes with the production of food. In this sense, the discussion which encompasses energy production is surrounded by second intentions and conflicts of interest. There are efforts to inhibit the use of new energy sources by countries which hold the current energy sources available.

Brazil has been seeking to develop biofuel production programs aiming to replace petroleum derivatives. One example would be the commitment to create alternatives to gasoline and diesel, which are summarized in the development and production of ethanol and biodiesel. Ethanol is produced from sugarcane as an alternative to petroleum-derived minerals, and biodiesel is produced from the soybean oil. Brazil has a large area suitable

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for the production of both products and also favorable weather conditions. Such factors lead the government and the Brazilian business sector to invest in the field, not only intending to improve the internal market, but also aiming to achieve a higher status in the international market for biofuels. It can be noticed that Brazilian policies for biofuels seek to place the country in a prominent position in the international energy policy.

The Brazilian international political strategy for the energy sector has been focusing on expanding the production of biofuels, ethanol and biodiesel in other States besides Brazil. This policy has been drawn up unilaterally and jointly with Brazil partners, and one of the central goals of this energy policy strategy is based on the recognition of biofuels as international commodities – hard commodities. The main objective of this article is to discuss the possibility of Brazil becoming a leading actor in the world energy policy.

Brazilian State's strategies to become a world energy superpower

The theme that encompasses the development and expansion of biofuels has gained strength and has become the topic of the Brazilian presidential agenda since Lula's first government (Nogueira, 2007). From then on, the engagement of the Ministry of Foreign Affairs (MRE) in the international negotiations has been noticeable. Therefore, the Division of New Energetic Resources and Renewable (DRN) was created, whose main objective is to conduct the behavior of the Brazilian energy policy in rounds of regional and multilateral negotiations with regards to biofuels (Silva, 2008). There are other agencies that play a fundamental role in the Brazilian energy policy for biofuels, as they relate to international negotiations: Department of Renewable Fuels (DCR), whose responsibility is monitoring funds for the development of biofuels, and the general coordination of Agro-energy and the Brazilian Agricultural Research Corporation (Embrapa, 2009).

Embrapa is in charge of the international cooperation and technological transfer in the context of biofuels in Brazilian government, especially those destined for Latin America and Africa. It is worth noticing at this juncture that the financial contributors of Embrapa are Interamerican Development Bank (IDB), International Bank for Reconstruction and Development (IBRD) and the International Fund for Agricultural Development (IFAD) (Embrapa, 2009). In this sense, Embrapa is responsible for broadcasting and marketing the biofuels globally, more specifically ethanol. At this juncture of government measures regarding energy issues of international strategic nature, it is worth mentioning the government initiative which has been developed by the Ministry of Mines and Energy, the Ten-Year Plan for Energy Expansion 2021 (PDE 2021), whose central premise is to be a planning mechanism for the Brazilian energy policy in various energy scenarios, determining the strategies that should be undertaken by the State to improve the development in the energy sector. In this way, studies related to PDE 2021 were designed and developed by the Secretary of Petroleum Natural Gas and Renewable Fuels and the Secretary of Planning and Energetic Development (Mme, 2012).

A major concern surrounding the energy sectors is linked with a growing apprehension with the global climate, exactly by the claim that biofuel production can affect the environment. Thus, it is crucial to notice that there are government policies which seek to protect and emphasize climate change issues, for example, the Decree 7.390/10 which regulates the law 12.187/09³. In this segment, the Plan sets standards for reducing

3 This law establishes the National Law on Climate Change. The main measures of the law are based on the quest to reduce the polluting effects in the Earth's atmosphere in order to reduce the dangers of climate change that the planet faces due to the economic development of capitalist societies (Brasil, 2009).

carbon dioxide emissions into the atmosphere within 2012-2021. For this reason, the Plan seeks to achieve greater efficiency in the areas where they are responsible for, such as hydroelectricity and wind power, and to promote sustainability in the development of renewable energy, biofuels in this case.

The government actions go beyond the continuous search to ensure a prominent position for the State in the global energy scenario. The Civil House along with the Department of Innovation, Embrapa and the Ministry of Science and Technology are responsible for the transmission of bioenergy technology to countries which maintain partnerships with the Brazilian State. In this segment, the agreements that result from those partnerships gain financial support from the National Bank for Economic and Social Development (BNDES) which, in turn, also provides funds for the development of biofuels in other countries. Thus, the Ministry of Mines and Energy accounted, in 2011, seventy-eight international agreements aimed for the development and sale of biofuels worldwide (Gomide, 2011).

The Inter-American Ethanol Commission was created in 2006 with the purpose of spreading the international trade of fuel. The Commission was established by the partnership of the United States and Brazil and had as its basic premise the building of a world trade environment for ethanol. Then, in 2007, it was drafted a memorandum between those countries, called Memorandum of Understanding on Biofuels, that represents the development of the joint actions between both countries. Although it alluded to biodiesel, the main focus was ethanol (Benevides, 2011).

The memorandum emphasized topics for research development and technological improvement for biofuels. In the global context, the Memorandum established standards and norms in order to expand the trade of biofuels worldwide. In this regard, joint efforts have been made in the International Biofuels Forum (FIB), in 2007, by Brazil, the United States, European Union, India, China, and South Africa in order to convert specifically biodiesel and ethanol into commodities (Simões, 2015). In the context of other countries, Brazil and the United States emphasized the purpose of engaging together to bring the advantages of biofuels to other countries through technical assistance and incentives to private sectors. The focus would be primarily in the Caribbean and in Central America regions. In this context, some measures have been taken for the accomplishment of these goals, as for example, the financing made by Brazil to the Getúlio Vargas Foundation (FGV) to elaborate studies on the possibility of biofuel production in some Latin American countries (Marinho, 2011).

Other memorandums have been signed by the Brazilian government along with other countries, whose main objectives are to disseminate the culture of biofuels in the policies of those States; to ensure alternative energy sources globally and to promote climate sustainability⁴. The steps consist in verifying the possibility of large scale production of biofuels therein in order to make possible the transfer of technology for planting and producing biofuels. The Ministry of Mines and Energy emphasizes that between 2003 and 2010 the Brazilian government signed over forty international agreements and memos about bioenergy (Mre, 2015).

The government initiatives to expand biofuels commercial activities, to sign international agreements for technology transfer, to jointly attempt to turn biofuels into hard commodities, to jointly make efforts to create an international environment for biofuels marketing demonstrate that the Brazilian international energy policy has been a governmental priority.

4 Some of these memorandums are: Memorandum of Understanding on Biofuels Area, with the Economic and Monetary Union of West Africa; Memorandum of Understanding between Brazil and the Netherlands, which had as its basic premise the creation of a space for international trade of biofuels.

Transforming Brazil into a global energy power, as a matter of fact, has been a Brazilian presidential agenda priority goal since President Luiz Inácio Lula da Silva's first term. During the International Conference on Biofuels in Brussels on July 5th 2007, President Lula emphasized in his speech how it would be possible to ensure sustainable biofuels development without affecting the environment. According to Lula, biofuel development schemes in the country would be associated with the government's actions in safeguarding biodiversity, banning deforestation, and providing spaces for sustainable logging. According to Lula, such government measures meant that illegal deforestation rate in the country were reduced by 50% within three years, which consequently made Brazil reduce its emissions of carbon dioxide in the atmosphere. Lula also highlighted that significant reductions of carbon dioxide in the atmosphere made by the Brazilian State may be repeated in the poorest countries located in Africa, Central America and the Caribbean, exactly because of biofuels inherent characteristics. In this sense, biofuels would be a low cost alternative and a source of job creation and incomes. In this way, biofuels may benefit more than harm disadvantaged countries in financial terms (Silva, 2007).

In regard to the issue related to the areas intended for planting inputs for the development of biofuels, Lula stressed that sugarcane for ethanol production did not compromise the areas for the production of food. In accordance with Lula, the number of hungry people in Brazil had been reduced to the extent that planting for the production of biofuels had been increased. Lula also stressed that the area intended for the country's sugarcane plantation represents only 10% of the area suitable for cultivation that, according to the former president, would be far away from the Amazon, which is not fit for sugarcane planting (Silva, 2007).

Another important element cited in Lula's speech would be the fact that access to energy in the current international scenario is not democratized. In this context, Lula pointed out that with the adoption of biofuels as a new world energy matrix, countries could have more access to energy without being subjected to the existing monopoly. Thus, the worldwide adoption use of biofuels could, according to Lula, eliminate potential conflicts between countries constantly seeking free access to available energy sources. Lula also stressed that the country had been developing the Brazilian Program of Biofuels Technical, Environmental, and Social Certification, which shows that biofuel production follows international environmental standards and that the country would be following norms, standards and internationally recognized labor rules (Silva, 2007).

The subsequent president of Brazil, in this case President Dilma Rousseff, shows that the country is still engaged in its international energy policies focused on biofuels, almost the same way as the previous President platform regarding the subject. During the lunch offered to the German President Cristian Wulff at the Itamaraty Palace on May 5th 2011, she emphasized in her speech that Brazil currently holds advanced technological capabilities and high level of international competitiveness with regard to biofuels (Rousseff, 2011). Thus, it is possible to notice in the government and presidential initiatives with regard to biofuels that the primary intent of these policies is to guarantee a protagonist position in the new energy policy that emerges on the international stage.

Obstacles to the transformation of Brazil into an international energy power

It is essential to mention three key problems for achieving the Brazilian State purpose to become an energy superpower: the denationalization of sugarcane industries in the country, mergers of Brazilian companies with international enterprises for ethanol production, and the activities of foreign companies in the energy sector

within the Brazilian territory. It is worth noticing at this juncture that at the same time that the Brazilian government is seeking for internationalization of biofuels production, especially in Africa, by transferring planting and production technology, the country is losing autonomy in its domestic production because there is an increasing foreign presence in the Brazilian ethanol. An example is the acquisition of Brazilian industry for the production of biofuels called Santelisa Vale by the French company Louis Dreyfus. It is also important to mention some of the international companies which work with bioenergy in Brazil: Cargill, United States; Tereos, France; Noble, Singapore; and British Petroleum, England (Benetti, 2008).

By 2004, the foreign participation in the energy sector of biofuels in Brazil, in the case of ethanol, was only 4%. The director of the Brazilian Infrastructure Centre (CBIE) Adriano Pires points out that this share in 2011 was 40% and may reach 60% in 2016 (Avena, 2011). Also, in this sense, it is possible to cite the merger of Cosan, which belonged to Brazil, with the Anglo-Dutch company Shell. Cosan was the largest company producing ethanol worldwide, even before this union. From this junction, the company named Raizen was born, which is currently one of the companies with higher incomes in the sector within and outside the country (Rural Centro, 2011).

Although there is a constant need to adapt to the international market and to increase the capabilities of the Brazilian energy biofuels companies, it is essential to understand how the Brazilian energy companies have become internationalized, since it becomes increasingly evident the possibility of international actors become active actors in the new global energy policy.

In addition to the central barriers mentioned above to the transformation of Brazil into a potentially strong player regarding bioenergy, other barriers arise in the journey of the Brazilian international energy policy. For example, the fact that the machinery industry and equipment for agricultural production are almost monopolized by foreign companies, such as the main world-renowned companies John Deere (USA) and Case New Holland of Italy (Vian; Andrade Júnior, 2010). With the sale of 60% of the Brazilian company Santal Equipments, one of the main and strongest in Brazil in the production of equipment and machinery for the ethanol industry (Porto, 2012), the situation becomes more serious.

Another example worth mentioning is the fact that in the case of the provision of targeted areas for the establishment of industrial plants designated to produce biodiesel, there are only two companies that operate with Brazilian technology for producing biofuel and that belong exclusively to Brazil, Somar and Tecbio. As regards to imported technologies for the establishment of industrial plants for the generation of biodiesel, there are in Brazil two Brazilian companies, Tecnic and Dedini, working in partnership with the CIW (US) and Desmet Balestra that belongs to France (Cantele, 2011).

Thus, having examined the three aggravating problems mentioned above, it is perceptible that the governmental action of Brazil towards this policy needs to be reviewed, given that the process of denationalization of its industries for the production of biofuels, the merger of Brazilian companies with foreign companies, and the unilateral actions of international companies in the field may lead Brazil to miss the opportunity to rise to the level of international economic power through biofuels.

Conclusion

Developed nations and those under development countries rely heavily on the continued access to sources of energy to ensure the survival of their societies and, not least, to guarantee their economic development.

Thus, the importance of biofuels for the planet arises, once there is uninterrupted search for energy sources. The oil remains the world energy matrix. However, discussions about the climate damage that oil causes to the planet, the insecurity caused by the possible depletion of oil, concerns regarding the instability of prices due to the fact that the main producing regions are located in regions facing constant economic and social instability make the world seek alternative energy sources. In sum, biofuels gain relevance in the international energy policy.

Brazil has the necessary characteristics to become a protagonist in this new international energy policy due to the fact that it has extensive experience in technology for the development of biofuels, in addition to having favorable conditions for planting for the production of biofuels. The country has been engaged in constant search for a position through its international policy aimed at energy. It has drafted unilateral and joint measures in order to spread international biofuel trade and has created policies with other countries interested in the global expansion of biofuels. The Brazilian government has placed high-ranking government agencies to make commercial partnerships, has made technology transfers to other interested countries and has promoted funding for the development of renewable energy. In addition, it has created plans to conduct the Brazilian energy policy in international forums. All these measures lead to believe that the State has sought to distinguish itself in the energy area.

Despite these actions of the Brazilian international energy policy, in order to achieve its goal of becoming a superpower in the area of energy, the Brazilian government must confront the obstacles that have arisen, such as mergers and denationalizations in the Brazilian energy sector, also the unilateral actions of foreign energy companies in Brazil, and the lack of an international regime for biofuels. There is extreme necessity to re-evaluate the denationalizations, the mergers of Brazilian energy companies and the role of foreign energy companies within the State. Finally, there is the extreme need to continue to struggle for the creation of an international regime for biofuels.

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Resumo

O artigo discute algumas medidas tomadas pelo estado brasileiro para alcançar seu objetivo, que é tornar-se um ator protagonista na nova política energética mundial. Ao longo do artigo discutimos se o país tem perdido a oportunidade de se tornar uma potência energética mundial.

Abstract

The article discusses the measures taken by the Brazilian State to become a leading actor in the new global energy policy. Throughout the article we discuss whether the country has lost the opportunity to become a world energy power.

Palavras-chave: Política energética brasileira; biocombustíveis; Política Externa Brasileira.

Keywords: Brazilian energy policy; biofuels; Brazilian Foreign Policy; Etanol.

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