

TRANSBOUNDARY EMISSIONS FROM FIRES IN THE AMAZON BASIN AND A POSSIBLE REGULATION OF GLOBAL COMMON DAMAGE

EMISSÕES TRANSBOUNDÁRIAS DE INCÊNDIO NA BACIA DA AMAZÔNIA E UMA POSSÍVEL REGULAÇÃO DOS DANOS AOS BENS GLOBAIS

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Abstract: The research aims to analyze the environmental challenges conflicting national goals for reducing GHG emissions, and who gains from protections versus development in sensitive areas like the Amazon are no longer simply local or regional matters but issues of global debate. Brazil has loosened environmental protections and stepped back on international commitments to reducing carbon emissions and deforestation. The government in Brazil expresses concern that such protections lessen the country's sovereignty, transferring the value of resources to foreign hands with little control by national authorities and the low return to local economies.

Keywords: Environmental policies; Climate change; International agreements.

Resumo: O objetivo da pesquisa é o de analisar os desafios ambientais que conflitam com os objetivos nacionais de redução de emissões de GEE e quem ganha com a proteção versus o desenvolvimento em áreas sensíveis como a Amazônia não são mais simplesmente questões locais ou regionais, mas questões de debate global. O Brasil afrouxou as proteções ambientais e recuou nos compromissos internacionais de redução de emissões de carbono e desmatamento. O governo Bolsonaro no Brasil manifesta preocupação de que essas proteções reduzam a soberania do país, transferindo o valor

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dos recursos para mãos estrangeiras, com pouco controle das autoridades nacionais e baixo retorno às economias locais.

Palavras-chave: Políticas ambientais; mudanças climáticas; acordos internacionais.

INTRODUCTION

This biome covers the states of Pará, Amazonas, Maranhão, Goiás, Mato Grosso, Acre, Amapá, Rondônia and Roraima, totaling 4,871,000 km² and a population of around twenty million inhabitants, 60% of whom live in urban areas.

The traditional model of occupation of the Amazon has led to a significant increase in deforestation in the legal Amazon. This very complex phenomenon cannot be attributed to a single factor.²

The most urgent issues in terms of the conservation and use of the Amazon's natural resources concern the large-scale loss of critical Amazonian functions in the face of advancing deforestation linked to development policies in the region, such as land speculation along roads, growth of cities, the dramatic increase in cattle ranching, logging and family farming (more recently mechanized agriculture), mainly linked to the cultivation of soy and cotton.³

Besides, Brazil endorsed the COP 21 ratified in 2016, setting national targets for reducing emissions. Until 2016, Brazil achieved, in fact, significant emissions cuts thanks to efforts to reduce deforestation in the Amazon and to promote energy generation from renewable sources such as biomass or hydroelectric power, achievements that the new environmental policies could hinder. Afterward, the new Brazil Administration declined to host the following COP-25 in 2019, arguing budgetary constraints.

Since the atmosphere is considered part of the Global Common beside the sea, seabed, Polar Regions, biodiversity, or outer space, challenges impacting the circulation of GHGs have a global effect because of its negative consequences across the planet. Unlike treaties covering human rights, which have an immediate impact on the Brazilian legal order, new agreements following the COP of UNFCCC, as the COP-21, require ratification of Brazil's

2 ALENCAR, A.; NEPSTAD, N; MCGRATH, D; MOUTINHO, P; PACHECO, P; DIAZ, M. D. C. V e FILHO, B. S. Desmatamento na Amazônia: indo além da emergência crônica. Manaus, Instituto de Pesquisa Ambiental da Amazônia (Ipam), 2004.

3 ALENCAR, A.; NEPSTAD, N; MCGRATH, D; MOUTINHO, P; PACHECO, P; DIAZ, M. D. C. V e FILHO, B. S. Op. Cit., 2004.

Parliament under Brazilian Constitution and, therefore, are subject to the approval of the National Congress which can oppose its adoption.

In the case of COP 21, the President submitted the text for consideration to the National Congress, which formally adopted the Legislative Decree No. 140 in August of 2016, entering into force in November of that year after the deposit of the instrument of ratification. And according to international conventions, Global Common's damage requires prompt, adequate, and effective compensation.

1 INTERNATIONAL AMAZON OVERVIEW

Brazil endorsed the Paris Agreement ratified in 2016 (COP 21), setting national targets for reducing emissions. Afterward, the new Brazil Administration declined to host the following COP-25 in 2019, arguing budgetary constraints. Brazil initially committed to cutting emissions by 37 percent by 2025 plus a progressive reduction of 43 percent by 2030, using 2005 levels.

Brazil achieved, in fact, significant emissions cuts thanks to efforts to reduce deforestation in the Amazon and promote energy generation from renewable sources such as biomass or hydroelectric power, achievements that the new environmental policies could hinder. The fires in the Amazon basin rainforest have ruined nevertheless all previously agreed objectives, threatening the global effort to reduce the climate change impact and worsening the effect of Greenhouse Gas- GHG emissions on the planet. At the same time, new policy goals also undermine Brazilian agro-environmental protection.

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August 2016, entering into force in November of that year after the deposit of the instrument of ratification.

As part of the Global Common concept, tropical rainforest protection regarding the global carbon balance is a priority worldwide. According to International conventions, Global Common's damage requires prompt, adequate, and effective compensation. Prohibitory actions or mandatory injunctions could also be claimed in response to emergencies. It was brought about by a combination of lower trade barriers and numerous technological innovations that strongly reduced transaction costs for movements of goods but also of people and capital.⁴

2 THE CURRENT WAVE OF ECONOMIC GLOBALIZATION IN LATIN AMERICA - BRAZIL

This is particularly apparent from the substantial increase in international migration and capital movements, which were less important during the second wave of globalization. Unlike its predecessors, this wave of globalization included many more developing countries, even though not all of them could harness globalization to their benefit, particularly with the agroecology.

2.1 THE AGRICULTURE TRADE IMPORTANCE FOR DEVELOPING COUNTRIES

First, a shift towards agriculture trade is typically associated with a change of career to processed products and thus higher value goods.

Within a given infrastructure, a shift in trade towards higher-value goods reduces the share of transaction costs per unit of merchandise. It thus helps overcome the geographic and infrastructure constraints many developing countries face.

Second, the agriculture trade helps to cope with adjustments in factor markets arising from the large swings in international commodity prices witnessed over the last decades.

As trade is essentially the exchange of similar and processed products, shocks result in a reallocation of production factors within an industry rather than between sectors.

⁴ NUNES, Claudia Ribeiro Pereira. Alimentação adequada no Brasil: Ativo econômico ou direito fundamental social? (Adequate food in Brazil: Economic asset or fundamental social right?) In: Espaço Jurídico: Journal of Law, v. 17, n. 1, p. 167-186, Joaçaba: Editora Unoesc, jan./abr. 2016. DOI: <http://dx.doi.org/10.18593/ejll.v17i1.4584>

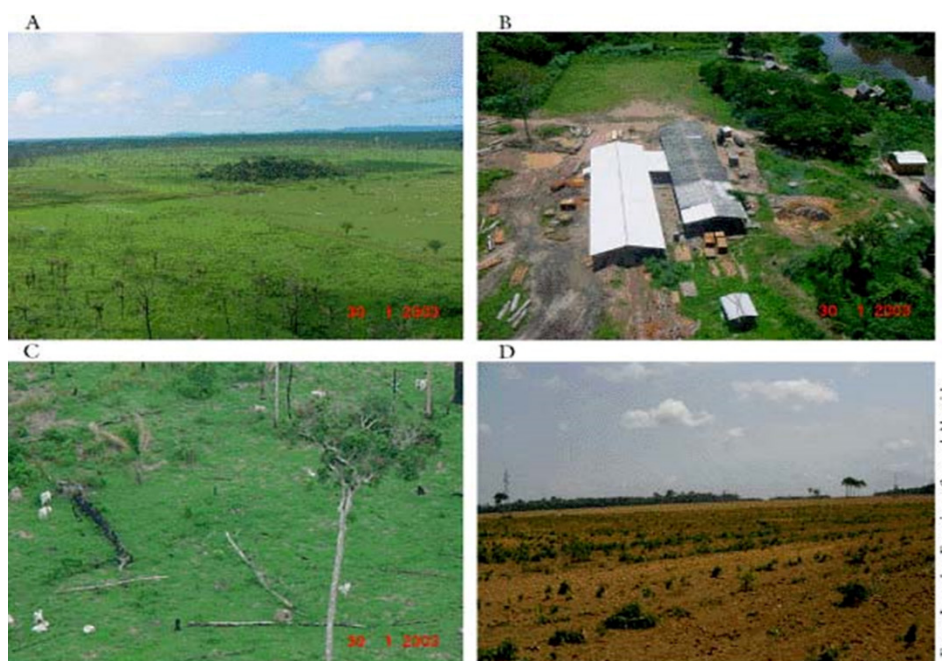
Third, trade in food and agriculture offers economies of scale in the food industry. It enables domestic producers and processors to sell homogeneous products concerning factor requirements but heterogeneous with utilization and marketing to domestic and foreign markets.⁵

2.2 GLOBALIZED AGRICULTURAL MARKET FOR INDUSTRIALIZATION AGRICULTURAL ACCORDING TO OCDE

The Brazilian industrialization agricultural market characteristics⁶ are:

- a. Industrialization of production means moving to large-scale production units that use standardized technology and management and are linked to the processor by either formal or informal arrangements.
- b. Size and standardization are essential in lowering production costs and producing more uniform crop products and animals that fit processor specifications and meet consumers - needs for specific product attributes and food safety concerns.

Figure I - Agricultural operations in Brazil



Source: FERREIRA, Leandro Valle; VENTICINQUE, Eduardo; ALMEIDA, Samuel. O desmatamento na Amazônia e a importância das áreas protegidas. In: ESTUDOS AVANÇADOS 19 (53), 2005. p.157-166.
Available at <https://www.scielo.br/pdf/ea/v19n53/24086.pdf>.

⁵ NUNES, Claudia Ribeiro Pereira. Alimentação adequada no Brasil: Ativo econômico ou direito fundamental social? (Adequate food in Brazil: Economic asset or fundamental social right?) In: Espaço Jurídico: Journal of Law, v. 17, n. 1, p. 167-186, Joaçaba: Editora Unoesc, jan./abr. 2016. DOI: <http://dx.doi.org/10.18593/ejll.v17i1.4584>

⁶ OECD - Organisation for Economic Cooperation and Development Environmental Performance Reviews - Brazil Report 2015. Available at https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-brazil-2015_9789264240094-en.

2.3 GLOBALIZED AGRICULTURAL MARKET FOR SMALLER AND FAMILY OPERATIONS, ACCORDING TO OCDE⁷

As shown in figure B above, the Brazilian more minor and family agricultural market characteristics are:

- a. Smaller operations not associated with an industrialized system will have increasing difficulty gaining the economies of size and the access to the technology required to be competitive, except perhaps in niche markets.⁸
- b. Smaller operations can remain in production for several years because they may have facilities with low debt and can utilize family labor.
- c. Technological advances combined with continued pressures to control costs and improve quality are expected to provide incentives for further industrialization of agriculture.
- d. The agricultural processes that most contributed to the emission of greenhouse gases were the digestion of ruminant animals and the use, often incorrect or abusive, of chemical fertilizers.

3 FIRES RAGE THROUGH THE AMAZON RAINFOREST IN LATIN AMERICAN COUNTRIES

The fires in the Amazon basin rainforest have threatened the global effort to reduce the climate change impact and worsen the effect of Greenhouse Gas- GHG emissions on the planet, while new policy goals also undermine Brazilian agro-environmental protection.

As more than 70,000 fires rage through the Amazon rainforest, some set by farmers and others out of control, the international community debates how to protect sensitive landscapes throughout Legal Amazon and other developing regions while also supplying critical commodities for global supply chains led by multinationals.⁹

7 OECD - Organisation for Economic Cooperation and Development Environmental Performance Reviews - Brazil Report 2015. Available at https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-brazil-2015_9789264240094-en.

8 GUEDES PINTO, L. F. Agricultura familiar. In: PROCHNOW, M. (Org.). Diálogos entre setores: integrando espaços e paisagens da produção rural e conservação. Atlanta: APREMAVI, 2015. p. 58-61.

9 NUNES, Claudia Ribeiro Pereira Nunes; PERALTA, Pedro Diaz. Environmental Disaster in the Amazon. In: YaleGlobal Online. Publication on 2019/9/3. Available at <https://yaleglobal.yale.edu/content/environmental-disaster-amazon>.

3.1 THE DEFORESTATION AND THE BRAZILIAN ADMINISTRATION POSITION

I was considering that the demand for food may increase up to 2.0% a.a. in the coming decades due to the expectation of population growth and improvement in the economic conditions of several countries,¹⁰ these changes in the agricultural landscape, as well as the reduction in the productivity of some.¹¹

According to Pinto, the increase in temperatures due to global warming can cause losses of R \$ 7.4 billion already in 2020 (a figure that may rise to R \$ 14 billion in 2070) and profoundly change the geography of agricultural production in Brazil.¹² Thus, areas that are currently the largest producers of grains may not be able to be planted well before the end of the century.

Brazil has had the Amazon area untouched for several years. But, in 2014, improved the deforestation, as it is shown below:

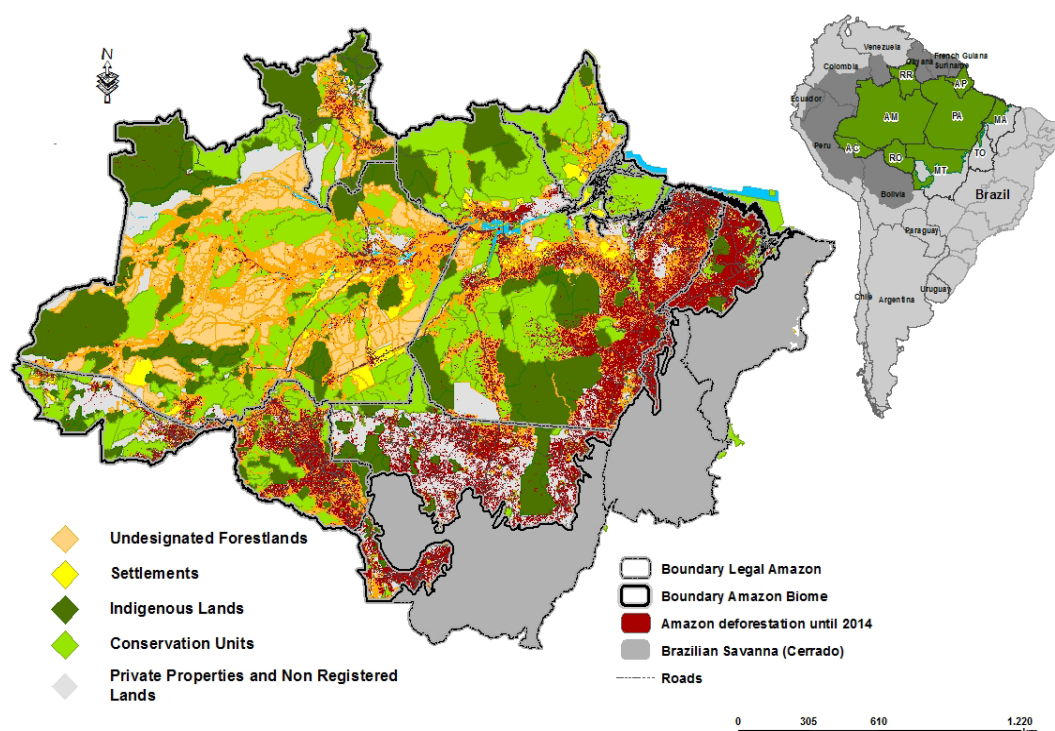


Figure II - 2014 Brazilian Amazon Deforestation

10 GUEDES PINTO, L. F. Agricultura familiar. In: PROCHNOW, M. (Org.). Diálogos entre setores: integrando espaços e paisagens da produção rural e conservação. Atlanta: APREMAVI, 2015. p. 58-61.

11 FEARNSIDE, P. M. A floresta Amazônia nas mudanças globais. Manaus, Instituto Nacional de Pesquisas da Amazônia (Inpa), 2003.

12 PINTO, H. S. et al. Aquecimento global e a nova geografia da produção agrícola no Brasil. Campinas: Embrapa/Unicamp, 2008.

Source: Adapted from SOARES-FILHO, Britaldo et al. Role of Brazilian Amazon protected areas in climate change mitigation. Proceedings of the National Academy of Sciences Jun 2010, 107 (24) 10821-10826; DOI: 10.1073/pnas.0913048107. Available at <https://www.pnas.org/content/107/24/10821>.

Deforestation in the Brazilian Amazon (red) and the role of Indigenous Lands and Conservation Units in containing forest destruction. Deforestation within ILs does not reach 2%, while in adjacent areas, it reached over 30% in 2014.¹³

In 2018, Brazil's Foreign Minister, Ernesto Araújo, has called efforts to combat climate change a conspiratorial power grab by the global left in his blog titled "Against Globalism." "It's a bad decision not to host the climate meeting (COP 25)," said Veríssimo, adding that it shows the government wants to avoid international scrutiny on climate change.

In the end, Brazil's foreign ministry withdrew its offer to host the COP 25 UN Climate Conference - the meeting tasked with moving forward the Paris Agreement, where countries committed to limiting global warming - citing "fiscal and budgetary restrictions" as the main reason, Agencia Brasil reported.¹⁴

CONCLUSION

During these last years, Brazilian Public Administration expanded agribusiness in the Amazon region. His choice of cabinet members reflects this intention. For instance, Bolsonaro has chosen Tereza Cristina to serve as the new Agriculture Minister. The Agriculture Front in Brazil's Congress supports expanding large-scale farmers and ranchers.¹⁵

In addition, the environment minister was recently found to have altered environmental management plans for a protected area to benefit the business.

Besides choosing pro-agriculture cabinet members, Bolsonaro has also issued a provisional measure that takes responsibility for indigenous land

13 FERREIRA, Leandro Valle; VENTICINQUE, Eduardo; ALMEIDA, Samuel. O desmatamento na Amazônia e a importância das áreas protegidas. In: ESTUDOS AVANÇADOS 19 (53), 2005. p.157-166. Available at <https://www.scielo.br/pdf/ea/v19n53/24086.pdf>.

14 BRAZIL. Agência Brasil (Oficial Communications). COP 25 UN Climate Conference. Available at <http://agenciabrasil.ebc.com.br/>.

15 BRAZIL. Agência Brasil (Oficial Communications). Brazilian Agriculture Minister. Available at <http://agenciabrasil.ebc.com.br/>.

boundary away from the government's Indigenous Affairs Agency (FUNAI) and assigns it to the Ministry of Agriculture.¹⁶

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¹⁶ BRAZIL. Agência Brasil (Oficial Communications). FUNAI - Brazilian Indigenous Affairs Agency. Available at <http://agenciabrasil.ebc.com.br/>.

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Recebido: 12.01.2020

Revisado: 08.04.2020

Aprovado: 30.05.2020