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The intersection between intellectual property, public health and access to climate-related technologies

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188

Research
Paper

7 December 2023

The Intersection Between Intellectual Property, Public Health and Access to Climate-Related Technologies

Livia Regina Batista



 **SOUTH
CENTRE**



RESEARCH PAPER

188

**THE INTERSECTION BETWEEN INTELLECTUAL
PROPERTY, PUBLIC HEALTH AND ACCESS TO
CLIMATE-RELATED TECHNOLOGIES**

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SOUTH CENTRE

7 DECEMBER 2023

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ABSTRACT

On the 20th anniversary of the Doha Declaration on the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) and Public Health adopted by the World Trade Organization, we realize that its impact is beyond issues of public health *stricto sensu*. The Doha Declaration has inspired discussions at the Council for TRIPS regarding access to climate-related technologies. Climate change is the main and most globalized environmental problem with adverse effects on public health, especially for the vulnerable communities in the Global-South. The main argument of the proponents of the discussion in the TRIPS Council is the need to rebalance public interests (such as public health and environmental/climate issues) with the private/economic interests of the most powerful countries and corporations. This debate addresses both the recognition of intellectual property rights as an important means for the promotion of technological innovation, and the required wider dissemination of technologies – be they medicines or climate-related technologies. This research paper explores the possibilities that the TRIPS Agreement and the Doha Declaration create for international transfer of climate-related technologies. Even though such discussions on climate-related technologies have initially failed in linking climate change and public health, as well as the rhetoric of human rights, the relevance of the topic remains. Besides that, the response to public health issues also must learn from the experience in climate change, such as the case studies evidencing the insufficiency and inefficiency of fast-tracking programs to provide for a wider dissemination of technologies – which have now been widely replicated to address the COVID-19 pandemic. Such comparison can also be an entrance point to discuss the public health implications for the international regime on climate change, highlighting that such issues are deeply intertwined, and need to be addressed jointly as well.

En el 20 aniversario de la Declaración de Doha relativa al el Acuerdo sobre los Aspectos de los Derechos de Propiedad Intelectual relacionados con el Comercio (Acuerdo sobre los ADPIC) y la salud pública, adoptada por la Organización Mundial del Comercio, nos damos cuenta de que su impacto va más allá de las cuestiones de salud pública stricto sensu. La Declaración de Doha ha inspirado los debates en el Consejo de los ADPIC sobre el acceso a las tecnologías relacionadas con el clima. El cambio climático es el principal y más globalizado problema medioambiental con efectos adversos sobre la salud pública, especialmente para las comunidades vulnerables del Sur Global. El principal argumento de los defensores del debate en el Consejo de los ADPIC es la necesidad de reequilibrar los intereses públicos (como la salud pública y las cuestiones medioambientales/climáticas) con los intereses privados/económicos de los países y empresas más poderosos. Este debate aborda tanto el reconocimiento de los derechos de propiedad intelectual como medio importante para el fomento de la innovación tecnológica, como la necesaria difusión más amplia de las tecnologías, ya sean medicamentos o tecnologías relacionadas con el clima. Este trabajo de investigación explora las posibilidades que el Acuerdo sobre los ADPIC y la Declaración de Doha crean para la transferencia internacional de tecnologías relacionadas con el clima. Aunque en un principio los debates sobre las tecnologías relacionadas con el clima han fracasado a la hora de vincular el cambio climático y la salud pública, así como la retórica de los derechos humanos, la relevancia del tema sigue vigente. Además, la respuesta a los problemas de salud pública también debe aprender de la experiencia en materia de cambio climático, como los estudios de casos que demuestran la insuficiencia e ineficacia de los programas de aceleración para proporcionar una mayor difusión de las tecnologías, que ahora se han reproducido ampliamente para hacer frente a la pandemia de COVID-19. Esta comparación también puede servir de punto de entrada para debatir las implicaciones de la salud pública para el régimen internacional sobre el cambio climático, poniendo de relieve

que estas cuestiones están profundamente entrelazadas y deben abordarse también de forma conjunta.

À l'occasion du 20e anniversaire de la déclaration de Doha sur l'accord sur les aspects des droits de propriété intellectuelle qui touchent au commerce (accord sur les ADPIC) et la santé publique adoptée par l'Organisation mondiale du commerce, il est évident que son impact dépasse les questions de santé publique stricto sensu. La déclaration de Doha a inspiré des discussions au sein du Conseil des ADPIC concernant l'accès aux technologies liées au climat. Le changement climatique est le problème environnemental le plus important et le plus globalisé qui a des effets néfastes sur la santé publique, en particulier pour les communautés vulnérables du Sud. Le principal argument des partisans de la discussion au sein du Conseil des ADPIC est la nécessité de rééquilibrer les intérêts publics (tels que la santé publique et les questions environnementales/climatiques) avec les intérêts privés/économiques des pays et des multinationales les plus puissants. Ce débat porte à la fois sur la reconnaissance des droits de propriété intellectuelle en tant que moyen important de promotion de l'innovation technologique et sur la nécessité d'une diffusion plus large des technologies, qu'il s'agisse de médicaments ou de technologies liées au climat. Ce document de recherche explore les possibilités offertes par l'accord sur les ADPIC et la déclaration de Doha pour le transfert international de technologies liées au climat. Même si ces discussions sur les technologies liées au climat n'ont pas réussi, dans un premier temps, à établir un lien entre le changement climatique et la santé publique, ainsi qu'avec la rhétorique des droits de l'homme, le sujet reste pertinent. Par ailleurs, la réponse aux questions de santé publique doit également tirer des leçons de l'expérience acquise dans le domaine du changement climatique, comme les études de cas démontrant l'insuffisance et l'inefficacité des programmes accélérés visant à assurer une plus large diffusion des technologies - qui ont maintenant été largement reproduites pour faire face à la pandémie de COVID-19. Cette comparaison peut également servir de point d'entrée pour discuter des implications de la santé publique pour le régime international sur le changement climatique, en soulignant que ces questions sont profondément interconnectées et qu'elles doivent être abordées conjointement.

TABLE OF CONTENTS

1. INTRODUCTION	1
2. REVIEW OF THE DISCURSIVE POWER IN THE NEGOTIATIONS FOR THE DOHA DECLARATION ON THE TRIPS AGREEMENT AND PUBLIC HEALTH	4
3. MAPPING THE INTERNATIONAL NEGOTIATIONS ON INTELLECTUAL PROPERTY RIGHTS AND THE INTERNATIONAL TRANSFER OF CLIMATE-RELATED TECHNOLOGIES	11
4. PUBLIC HEALTH AND CLIMATE-RELATED TECHNOLOGIES: A CRITICAL COMPARISON AND LESSONS TO BE LEARNED	14
4.1 <i>Particularities of the Discursive Power</i>	14
4.2 <i>Particularities of the Expert Power in the Issue of Climate Change</i>	16
5. A COUNTERPOINT: THE FAST-TRACKING PROGRAM AND THE UNLEARNED LESSON OF CLIMATE CHANGE FOR THE ADVANCEMENT OF DOHA.....	20
6. CONCLUSION	22
REFERENCES	24

1. INTRODUCTION

In the words of Susan K. Sell, “the TRIPS Agreement is hardly the end of the story”.¹ On the contrary, for the author, its adoption in 1994 “is not merely an incremental change in international regulation, but rather the embodiment of a new ‘constitutive principle’ in so far as it creates new intellectual property rights that create or define new forms of behavior”.² Therefore, from 1994 onwards, the TRIPS Agreement historically contextualizes the actions that will transform it,³ incorporated in its turn into the capitalist system – in this case, the context favored the emergence of new interests, such as those related to universal access to essential medicines, based on the questioning of the prohibitive price of such goods, widely practiced by the pharmaceutical sector as a result of strong intellectual property rights’ protection.

Different factors, as well as the role of different public and private actors interested in a stronger protection of the intellectual property rights, culminated in the adoption of the TRIPS Agreement in 1994, without considering social issues of importance to countries of the Global South, such as public health and environmental issues. In this sense, Ellen ‘t Hoen clarifies that different factors, as well as the role of emerging actors post-TRIPS Agreement, have also culminated in the adoption of the Doha Declaration on the TRIPS Agreement and Public Health (Doha Declaration) in 2001.

Now, on the 20th anniversary of the Doha Declaration, this paper will analyze the emergence – or possibility thereof – of different public and private actors in the intersection between public health and access to climate-related technologies, particularly regarding the strategic use of a discursive power from countries of the Global South in terms of the flexibilities of the TRIPS Agreement. In this regard, a concept such as the *eco-pandemic injustice* developed by Martha Powers et al.⁴, for instance, reveals interconnections between the COVID-19 pandemic and environmental issues. According to these authors, “COVID-19 has increased awareness of the impacts of exposure to air pollutants and environmental chemicals that act as immunotoxins and the ways that habitat destruction increases zoonotic spillover and disease risk”.⁵

However, climate change also deeply affects the social and environmental determinants of health – and, therefore, it is a public health issue in itself. The World Health Organization (WHO) has recently acknowledged that climate change is “the single biggest health threat facing humanity”,⁶ as it is already impacting health in a myriad of ways, such as the worsening of heat-related and respiratory illness, zoonoses, vector-borne diseases, as well as mortality

¹ Susan K. Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge, Cambridge University Press, 2003), p. 121.

² *Ibid.*, 32-33.

³ Margaret S. Archer, “Morphogenesis Versus Structuration: on Combining Structure and Action”, *The British Journal of Sociology*, vol. 61, n. 01 (London 2010): 225-254, p. 238.

⁴ Martha Powers et al., “COVID-19 as Eco-Pandemic Injustice: Opportunities for Collective and Antiracist Approaches to Environmental Health”, *Journal of Health and Social Behavior*, vol. 62, No. 02 (2021): 222-229.

⁵ *Ibid.*, 223.

⁶ World Health Organization, *Climate Change and Health* (Geneva, 2021). Available from: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health> (accessed 13 January 2022).

from extreme weather events.⁷ On its special report published in 2018, the Intergovernmental Panel on Climate Change explains, with *very high confidence*, that “climate change [also] adversely affects human health by increasing exposure and vulnerability to climate-related stresses and decreasing the capacity of health systems to manage changes in the magnitude and pattern of climate-sensitive health outcomes”.⁸ According to Mirza Alas, this relation shows “the importance of integrating health into climate strategies as well as making the case to include climate change into health strategies for developing countries”.⁹

Besides that, WHO explains that “these climate-sensitive health risks are disproportionately felt by the most vulnerable and disadvantaged communities”.¹⁰ For example, changes in transmission patterns of vector-borne infection diseases, such as malaria, dengue, and chikungunya, represent a higher burden for Global-South countries in tropical and subtropical areas¹¹ – especially because these countries already struggle to contain such diseases.^{12,13} Health inequities and vulnerabilities to climate change have the same underlying factors – structural racism, for instance. Because of that, the same communities that are disproportionately affected by the climate crisis also suffer more from public health issues – from the HIV/AIDS crisis in the 1990s to COVID-19 since 2020. According to James Healy et al. in a recent published analysis, “such an understanding is foundational to achieving the truly equitable solutions that we so desperately need”.¹⁴

Because of this, as these crises converged and even contributed to each other, and access to remedies of both requires addressing intellectual property rights, the research asks: what possibilities do the TRIPS Agreement and the Doha Declaration open for international transfer of climate-related technologies? And besides that, how the contemporary debate on public health and intellectual property rights could learn from previous experience on climate change? First, I will discuss the dynamics on the negotiations taking place in the 2000s and how it culminated in the reaffirmation of the flexibilities contained in the international system of intellectual property rights protection, with the adoption of the Doha Declaration — which is considered to be “a landmark decision because it was the first time developing countries had succeeded in pushing back on intellectual property requirements, after decades of bilateral and multilateral pressures to ratchet them up”.¹⁵ Then, and because climate change as a global issue is also played out politically at the level of States, I will conduct qualitative

⁷ Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: an IPCC Special Report on The Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to The Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (Geneva, Intergovernmental Panel on Climate Change, 2018), p. 180.

⁸ *Ibid.*, 240.

⁹ Mirza Alas, “Malaria and Dengue: Understanding Two Infectious Diseases Affecting Developing Countries and Their Link to Climate Change”, Research Paper No. 133, available on: <https://www.southcentre.int/research-paper-133-august-2021/> (accessed 15 March 2022), p. 12.

¹⁰ Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, p. 240.

¹¹ Alas, “Malaria and Dengue”, p. 15.

¹² *Ibid.*, p. 17.

¹³ This concern also adds to the issue of antimicrobial resistance, that is, the risk of medicines becoming ineffective because of a defense mechanism of bacteria and other microorganisms that cause diseases in human beings, as discussed by the same author in a previous research paper. See: Mirza Alas, “Antimicrobial Resistance: Examining the Environment as Part of the One Health Approach”, *Research Paper n. 104*, available on: <https://www.southcentre.int/research-paper-104-march-2020/> (accessed 15 March 2022).

¹⁴ James P. Healy et al., “COVID-19 and climate change: crises of structural racism”, *Journal of Climate Change and Health*, vol. 05 (2022): 01-02.

¹⁵ Ellen ‘t Hoen. *The Global Politics of Pharmaceutical Monopoly Power: Drug Patents, Access, Innovation, and The Application of the WTO Doha Declaration on TRIPS and Public Health* (Diemen, AMB Press, 2009), p. 02.

research through a mapping of the international negotiations, based on the methodology of discourse analysis — especially after the Ecuadorian delegation brought the issue to the Council for TRIPS, through the presentation of the “*Contribución de la Propiedad Intelectual a la Facilitación de la Transferencia de Tecnologías Ecológicamente Racionales*”¹⁶ in 2013. Finally, I will compare such dynamics, in order to understand the failure of Global South in international negotiations regarding compulsory licensing of climate-related technologies. The results will be further substantiated with secondary literature on the international negotiations that led to the adoption of the TRIPS Agreement and the Doha Declaration, particularly drawing upon the previous work of Susan K. Sell, Ellen ‘t Hoen, Wolfgang Hein and Suerie Moon.

In the last section, I will bring a counterpoint and discuss the recent adoption of fast-tracking programs to address public health, particularly regarding technologies related to COVID-19, as they did not assimilate the criticisms regarding the previous experience on climate-related technologies. This analysis is crucial to understand where the discussion could evolve on the 20th anniversary of the Doha Declaration, as the example of climate change and intellectual property rights should be reflected in the implementation of TRIPS flexibilities.

The timeliness of such discussion is noteworthy. Even though negotiations on climate-related technologies have initially failed, the relevance of the topic remains and discussing the negotiations on public health before Doha Declaration and since then can also be an entrance point to discuss it as a component of the international regime on climate change. Besides, 2020 and 2021 were decisive years for climate action, as they marked the beginning of the first phase of the Paris Agreement. The international regime on climate change being a complex and evolutionary one, there is still room for improvement even in the implementation of the Paris Agreement, focusing more plausibly on the international transfer of climate-related technologies. In parallel, the COVID-19 pandemic renewed the discussion about flexibilities of the international system of intellectual property rights and the operation of patent offices around the world.

¹⁶ The contribution is available from [https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=@Symbol=%20\(ip/c/w/585*\)&Language=SPANISH&Context=FomerScriptedSearch&languageUIChanged=true#](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=@Symbol=%20(ip/c/w/585*)&Language=SPANISH&Context=FomerScriptedSearch&languageUIChanged=true#) (accessed 09 November 2021).

2. REVIEW OF THE DISCURSIVE POWER IN THE NEGOTIATIONS FOR THE DOHA DECLARATION ON THE TRIPS AGREEMENT AND PUBLIC HEALTH

Since its adoption, the TRIPS Agreement has been contested from different directions¹⁷ – one of which is due to the magnitude of the AIDS crisis in the 1990s, which “has drawn attention to the fact that millions of people in the developing world do not have access to the medicines that are needed to treat disease or alleviate suffering”.¹⁸ One of the factors to be considered in this regard is the prohibitive price of these medicines as a result of the strong protection of intellectual property rights.¹⁹ This is because before the TRIPS Agreement, most countries in the Global South, as well as some developed countries, did not grant patents on medicines, thus enabling competition in this sector with the emergence of industries focused on the production of “generic” drugs.

Thus, according to Susan Sell and Christopher May, “rather than finally settling the governance of IPRs at the global level, TRIPS paradoxically has revealed the numerous political problems with recognizing and enforcing IPRs”.²⁰ As a result, even before the TRIPS Agreement came into effect, the most successful counter-hegemonic movement has started,²¹ the campaign for universal access to essential medicines. Flexibilities incorporated in the TRIPS Agreement were seen as entry points for social issues²² such as public health, with compulsory licensing on patents proving to be the most controversial issue between different actors.²³ At the heart of this campaign lies a discussion about “what priority would be given to health – particularly the health of some of the world’s poorest people – and what priority to economic interests, particularly those of the most powerful nations and firms”.²⁴ In other words, what is prioritized by global institutions and the operation of the global IP system.

The discourse appears as a relevant point of intersection of both fields, framing the case in such a way as to translate interests into a matter of *public* interest to be “sold” to governments. Thus, through a skillful exploration of political opportunities, this campaign has gained support in diverse sectors and countries, making Global North’s denial of compulsory licensing for essential medicines virtually unfeasible. This is what Suerie Moon and Wolfgang Hein call “discursive power”, relevant to social construction of the reality, in order to “[make] people understand the importance of access to medicines as an essential element of the human right to health, and thus in promoting and implementing [this] norm”.²⁵ Susan K. Sell, too, in prefacing the authors’ book, argues that “words matter in global governance, and the discursive strategy of framing intellectual property rights as a public health issue helped to galvanize institutions”.²⁶

¹⁷ Susan K. Sell and Christopher May, *Intellectual Property Rights: A Critical History* (Boulder, Lynne Rienner Publishers, 2006), p. 161.

¹⁸ t Hoen. “TRIPS, Pharmaceutical Patents”, p. 27.

¹⁹ Ibid.

²⁰ Sell and May. *Intellectual Property Rights*, p. 176.

²¹ Sell. *Private Power, Public Law*, p. 173.

²² Wolfgang Hein and Moon, Suerie Moon, *Informal Norms in Global Governance: Human Rights, Intellectual Property Rules, and Access to Medicines* (London, Routledge Publishing, 2013), p. 61.

²³ Ibid., p. 62.

²⁴ Ibid., p. 02.

²⁵ Ibid., p. 37.

²⁶ Ibid.

Just as the strategy developed by the Intellectual Property Committee in the late 1980s was to redefine “contingently incompatible”²⁷ protection of intellectual property rights around the world as a barrier to international trade—that is, the rhetoric of free trade—the strategy developed in this area in the late 1990s was to redefine the stronger (and, again, “contingently incompatible”, now relative to other interests) protection of intellectual property rights around the world as a barrier to universal access to essential medicines and, therefore, a barrier to the fulfillment of human rights, particularly in relation to the most vulnerable communities. It can be called, in order to draw a parallel, a rhetoric of human rights. This narrative is of paramount importance because, “from the lay perspective, the concept of ‘human rights’ can be seen as a widely accepted codex on what governments should do and should not do”.²⁸

Furthermore, despite a geographical distance between the countries of the Global South where resistance to the TRIPS Agreement was most actively observed (such as South Africa, Brazil, and India, for example), the same communication technologies essential to globalization allowed that they effectively “were taking place at a single discursive interface”.²⁹ In other words: the Global South was united as a bloc in the exercise of the same discursive power.

Also influential in the discursive power is an expert power, “which depends on the acceptance of a scientific foundation of political positions on disputed issues”.³⁰ If not contested, an expert power controls the meaning of social and political concepts, as well as their legal interpretations.³¹

Using a consolidated discourse and counting on the growing support of different countries, the private sector and civil society in particular, the matter was then introduced in the scope of international negotiations. In early 2001, the African Group asked the Council for TRIPS to debate the relationship between public health and intellectual property, defending the use of the flexibilities contained in the TRIPS Agreement.

At the meeting on 2-5 April 2011, public health was included in the agenda as “**other business**”.³² On that occasion, the Zimbabwean delegation, speaking on behalf of the African Group, claimed that public health had aroused public interest and was being actively debated outside the scope of the WTO, so that Council for TRIPS “could not afford to ignore, especially given the need to clarify the role of intellectual property rights protection in dealing with pandemics such as the one caused by AIDS and other life-threatening diseases”. The delegation noted the need to address, on the one hand, the importance of providing incentives for research and development into new and effective pharmaceutical products and, on the other hand, affordable access to such products by people in need, especially those in developing countries. The main argument, relating to both sides of the debate, consisted in linking the broader access to essential medicines to affordability and, on the opposite side, linking patent to exclusivity rights that often lead to anti-competitive practices – which, in turn,

²⁷ Archer. “Morphogenesis Versus Structuration”, p. 238.

²⁸ Hein and Moon. *Informal Norms in Global Governance*, p. 165.

²⁹ *Ibid.*, p. 71.

³⁰ *Ibid.*, p. 38.

³¹ *Ibid.*, p. 165.

³² All the minutes from the meetings of Council for TRIPS are available on: <https://docs.wto.org> (accessed 11 November 2021).

influence the price of medicines. The Zimbabwean delegation also stated categorically that it was not their intention to be accusing or deliberately provocative.

Still, according to the Zimbabwean delegation, the AIDS crisis in the Global South has led to a crisis of public perception about intellectual property rights and the role of the TRIPS Agreement – which, in turn, led to a crisis of legitimacy for the TRIPS Agreement itself. From this, the African Group requested a special session to be held at the next meeting from the Council for TRIPS, the result of which – as anticipated by the delegation since that first moment – would contribute to a preparatory discussion for the 4th Ministerial Conference to be held in Doha at the end of the same year. All the delegations who took the floor at the meeting agreed and the request was accepted by the Chair.

On this first opportunity, the United States stated that it would raise no objection if countries availed themselves of the flexibilities afforded by the TRIPS Agreement, provided that they complied with the provisions of the Agreement – much in the vague sense of compliance contained in Article 8. However, they also emphasized the role of protection of intellectual property rights in the development and commercialization of new medicines and that this was one of the many important issues that had to be addressed. The same argument was reinforced by the European Union.

On the other hand, the Brazilian delegation emphasized that the role of WTO is to discuss aspects of intellectual property rights as related to international trade and, given that exclusive rights provided by intellectual property rights did not exist in a vacuum and had to serve a social purpose, Members had to ensure that nothing in the TRIPS Agreement would prevent countries from implementing sound health policies. The delegation then suggested that Members should engage in a discussion on the existing flexibilities in the TRIPS Agreement, considering the extent to which countries can, in fact, use these measures – this being an opportunity for the WTO and the Council for TRIPS to send an unambiguous message that it was not part of the problem, but of the solution.

In this same sense, one of the words most used by delegations from the Global South was “**clarification**” regarding the flexibilities provided for in the TRIPS Agreement. The delegation from India went one step further, advocating for the debate to take place in the context of Article 8, mentioned as one of the most fundamental principles for the protection of public health at the domestic level. In addition, the delegation of Kenya denounced the pressure by the Global North pressure not to use those flexibilities.

A special meeting on intellectual property rights and access to medicine was then held on 18-22 June 2001 by the Council for TRIPS under the chairmanship of the Ambassador of Zimbabwe who, at his opening, defined two sub-items under discussion: (i) the interpretation and application of the relevant provisions of the TRIPS Agreement with a view of clarifying the flexibilities to which Members are entitled; and (ii) the relationship between the TRIPS Agreement and affordable access to essential medicines.

Compulsory licensing became an issue heavily addressed in these discussions with the presentation of a communication from the European Union (IP/C/W/280)³³ on 11 June 2001 and another from Brazil, on behalf of the Global South countries (IP/C/W/296)³⁴ on 19 June 2001.

On that occasion, the European Union emphasized voluntary initiatives that its Member States had been adopting in terms of affordability of medicines to vulnerable communities, with the main objective of “foster[ing] sustainable development with a view to eradicating poverty in developing countries and to integrating them into the world economy”. On the other hand, it defended the protection of intellectual property rights as an essential stimulus to innovation and, therefore, necessary for the development of new medicines. It further argued that a margin of discretion from Articles 7 and 8, as well as the flexibilities included in Articles 30 and 31 of the TRIPS Agreement, enable countries to “set up an intellectual property regime that meets their policy needs and is capable of responding to public health concerns”.

The delegation of Brazil, on the other hand, began its communication by stating that the commitment of the Global South to the TRIPS Agreement had arisen from their expectation that protection of intellectual property rights would achieve the objectives set out in Article 7. However, “some provisions of the TRIPS Agreement may elicit different interpretations”, and such “room to manoeuvre served the purpose of accommodating different positions held by Members at the time of negotiations of the Agreement”. In this sense, the Brazilian delegation repeated the idea that “nothing in the TRIPS Agreement reduces the range of options available to governments to promote and protect public health, as well as other overarching public policies objectives”. In addition, it placed the discussion within the Council for TRIPS in the broader context of discussions on the issue in other international fora.

In their communication, Global South countries also defended the reading of each provision of the TRIPS Agreement in light of its Articles 7 and 8 as determined in Article 31 of the Vienna Convention of the Law of Treaties. In relation to Article 7, their suggestion was consistent with the published literature, in the sense that its language “stems from a recognition by Members that the mere existence and the exercise of intellectual property rights, such as patents, do not necessarily result in the fulfillment of the objectives of the TRIPS Agreement”, so that, “where confronted with specific situations where the patent rights over medicines are not exercised in a way that meets the objectives of Article 7, Members may take measures to ensure that they will be achieved – such as the granting of compulsory licenses”.

Although recognizing that compulsory licenses alone will not address all the problems related to public health, as other structural factors can also contribute to limiting access to pharmaceuticals, they were considered as an important measure available to Members, provided for in Article 31 of the TRIPS Agreement and in Article 5.A of the Paris Convention. It was also emphasized the great use of this measure by Global-North countries in other matters.

³³ World Trade Organization, document IP/C/W/280. Available from: https://www.wto.org/english/tratop_e/trips_e/paper_eu_w280_e.htm.

³⁴ World Trade Organization, document IP/C/W/296. Available from: https://www.wto.org/english/tratop_e/trips_e/paper_develop_w296_e.htm.

Therefore, this initial debate clearly enunciated the position of Global South and Global North countries. Both mentioned Articles 7 and 8, differing, however, in relation to their effectiveness: if, on the one hand, the Global North understands that the margin of discretion granted in these provision is sufficient for the adoption of measures in public health – focusing their efforts, therefore, on taking responsibility for the lack of universal access to essential medicines out of the protection of intellectual property rights, on the other hand, Global-South demands a more precise interpretation of the mentioned provisions in this regard. It is noteworthy, that Global South delegations emphasized in their discourses agreement with the premise that intellectual property rights play an important role in encouraging research and development of new medicines.

The delegation from Zimbabwe summarized Global South concerns and insistence on a ministerial declaration regarding the use of the flexibilities of the TRIPS Agreement on the issue of universal access to essential medicines, explaining that “this is the assurance and guarantee that governments need, to enable them to adopt such measures, without fear of litigation (...) or that bilateral pressures will be applied to them”. Inserting the language that “nothing in the TRIPS Agreement should prevent Members from taking measures to protect public health” therefore would represent a guarantee in the face of Global North litigation. In contrast, the delegation of Switzerland, in its statement at the meeting, suggested the use of a **positive** language, for example, that ‘implementation of the TRIPS Agreement should contribute to enabling Members to have access to affordable medicines’, thereby understanding as normal and appropriate the adoption of such measures.

However, it is precisely this supposed **normality** that the Global South was questioning. This is because recent experience – such as the case in South Africa³⁵ – had shown these countries a possibility of explicit or implicit threats of using the dispute settlement mechanism to enforce restrictive, unbalanced and, indeed, incorrect interpretation of the TRIPS Agreement, which prevented the effective use of these flexibilities. Thus, no one disagreed that Articles 7 and 8 of the TRIPS Agreement provided for an adequate balance between the protection of intellectual property rights and the public interest – as was constantly emphasized by Global North delegations. On the contrary, what Global South delegations wanted was confirmation by the Council for TRIPS of an interpretation that allows the effective implementation of this balance. In the words of the Argentine delegation: “another way [to ensure that negotiations produce an imbalanced result] is to fail to implement properly what has been agreed. This is where the problem lies between the TRIPS Agreement and public health”.

In terms of discursive elements, the effort of Global South delegations to frame access to medicines as fundamental to the human right to health is also relevant. In this way, this debate within the scope of the Council for TRIPS should lead to consistency with obligations regarding human rights agreed on internationally.

³⁵ The most emblematic dispute occurred in South Africa in early 1998, with a historic court case between the Pharmaceutical Manufacturers Association of South Africa and other pharmaceutical companies, mostly transnational, and the South-African government, arguing that the amendment to the Medicines and *Related Substances Control* Amendment Act No. 90 of 1997 violated the TRIPS Agreement and the South African. However, during the lawsuit, these companies lost the initial support of the governments of the countries in which they were based – which retreated in the face of a growing and negative public reaction. Furthermore, the companies' main argument was countered by an analysis showing that the amendment would not violate the obligations undertaken internationally by South Africa. The lawsuit was then withdrawn in 2001.

The debate continued at the meeting on 19-20 September 2001 focused on the analysis of two different proposals for a ministerial declaration: one from the Global North and another from the Global South. Even with different positions, the negotiations in the Ministerial Conference in Doha started with less resistance from the Global North to a language on compulsory licensing as proposed by the Global South. That is because, in the words of Suerie Moon and Wolfgang Hein, “an idiosyncratic twist of events would help bring countries closer to a consensus text”.³⁶ on the **anthrax case** in 2001. Confronted with a possible bioterrorist attack and concerned with a possible shortage of a medicine (ciprofloxacin), which was the only proven treatment for anthrax exposure, the United States and the Canadian governments threatened pharmaceutical industries with a compulsory license – which contributed to making their resistance politically untenable.³⁷

That is how the Doha Declaration on the TRIPS Agreement and Public Health was adopted during the 4th Ministerial Conference of the WTO, culminating in a success (albeit still partial) of the counter-hegemonic movement of Global South regarding the protection of intellectual property rights.

Therefore, even though power hierarchies in the global order had not changed when these negotiations started in the early 2000s³⁸ since the adoption of the TRIPS Agreement, in the matter of public health we could observe the emergence of a bloc that, even though geographically fragmented, operated in a single discursive interface, the human rights rhetoric, to enable the development of a paradigm for universal access to essential medicines³⁹ and, based on that, the adoption of the Doha Declaration.

This could be summarized as follows: initially, since the AIDS crisis in the 1990s, mainly in sub-Saharan Africa, an international movement of nongovernmental organizations emerged, as well as a very negative public reaction towards the pharmaceutical sector. Furthermore, Global-South delegations – despite their different situations – “were extremely well prepared and operated as one bloc”.⁴⁰ And, finally, uncompromising positions of Global-North countries were difficult to maintain in light of the anthrax crisis and the concerns of a shortage of the medicines needed for its treatment. This is because “both the US and Canada rapidly expressed their willingness to set aside the patent held by the German company if other solutions could not be found”.⁴¹ Thus, “the anthrax scare and the threatened shortage of Ciprofloxacin forced all WTO Members to ask themselves how much of a prisoner they wanted to be of their own patent systems”.⁴²

The result has been a greater use of the flexibilities of the TRIPS Agreement, with Zimbabwe being the first government to “test” the international environment, by granting compulsory licenses in relation to all medicines related to the treatment of HIV/AIDS.⁴³ However, even then, fear and uncertainty remained in the Global South regarding the acceptance of compulsory licensing in relation to diseases other than HIV/AIDS and to countries other than

³⁶ Hein and Moon, *Informal Norms in Global Governance*, p. 76.

³⁷ *Ibid.*

³⁸ *Ibid.*, p. 190.

³⁹ *Ibid.*, p. 188.

⁴⁰ t Hoen, “TRIPS, Pharmaceutical Patents”, pp. 42-43.

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ Hein and Moon, *Informal Norms in Global Governance*, p. 84.

those located in sub-Saharan Africa. In any case, given the “increasing interlinkages between health and other areas of global governance”,⁴⁴ as is the case with climate change, the experience can be seen as a prominent example of a coordinated Global South response to a global challenge.

⁴⁴ *Ibid.*, p. 34.

3. MAPPING THE INTERNATIONAL NEGOTIATIONS ON INTELLECTUAL PROPERTY RIGHTS AND THE INTERNATIONAL TRANSFER OF CLIMATE-RELATED TECHNOLOGIES

Much inspired by the previous and successful experience in Doha on the universal access to essential medicines, the Ecuadorian delegation introduced the issue of compulsory licensing and international transfer of climate-related technologies in the debates of the Council for TRIPS. It did so, as noted, through a communication on the “*Contribución de la Propiedad Intelectual a la Facilitación de la Transferencia de Tecnologías Ecológicamente Racionales*”⁴⁵ on 27 February 2013. Since then, it has been discussed at various meetings, remaining as a regular item on the agenda of the Council for TRIPS between 11-12 June 2013 and 11 June 2014.

The main argument in that document is that since the international transfer of climate-related technologies is a fundamental element of the international regime on climate change – which is the most urgent environmental and public health issue we now face – intellectual property rights should be addressed in WTO. This is because the “lack of information and excessive protection or inadequate application and abuse” of such rights “may constitute a certain kind of barrier to access to this technologies”. Ecuador proposed that a Declaration be negotiated in which countries reaffirm the existing flexibilities in the TRIPS Agreement and that **it does not and should not prevent members from taking measures to protect their population from the harmful effects of climate change.**

The discussion in the TRIPS Council on the proposal took place between countries of the Global North and the Global South, Chile being an exception. Only nine delegations took the floor at the meetings: on one side, Ecuador, Cuba, China, India, and Brazil, and on the other, the United States of America, Japan, the European Union and Switzerland. The countries in favor of the proposal are all classified as upper-middle income countries – except for India, classified as lower-middle income,⁴⁶ although recognized as an emerging economy as well. This is mainly because “they have a greater degree of protection for such rights in their respective domestic legislation and have, in recent years, experienced remarkable growth in patent granting by their offices”,⁴⁷ though in favor of companies based in the Global North. The low-income or lower-middle income countries who took the floor at some point of the meetings, despite being the most vulnerable to climate change, did so to welcome the discussion – with no further considerations. On the other hand, countries opposed to such discussion were classified as high income.

The main arguments from the Global North were that: (i) intellectual property rights are a catalyst and not a barrier to innovation and transfer of climate-related technologies – and, according to Global North delegations, there were examples of successful initiatives on

⁴⁵ The contribution and all the minutes from the meetings of Council for TRIPS are available on: <https://docs.wto.org> (accessed 09 November 2021).

⁴⁶ The classification used in this cleavage is based on the database of the World Bank, available on: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> (accessed 05 June 2018).

⁴⁷ Livia Regina Batista, *Mudanças Climáticas e Propriedade Intelectual: Transferência Internacional de Tecnologias* (São Paulo, Editora Juruá, 2017), p. 104.

voluntary licensing to prove such point; and (ii) Global South countries did not have favorable market conditions to enable their access to such technologies.

On the other hand, the main argument from the Global South was to underscore the existing flexibilities of the TRIPS Agreement and their interest to use them in order to enable access to climate-related technologies. These delegations' discourse also remarkably focused on: (i) the principle of common but differentiated responsibilities and respective capabilities under the international regime on climate change; and (ii) the objectives and principles of the protection of intellectual property rights as stated in Articles 7 and 8 of the TRIPS Agreement. Cuba was, indeed, the only delegation to – at least explicitly – highlight compulsory licensing as “one particularly advisable option”, in the sense that it “cannot be an exceptional policy in the event of countries facing a **health emergency**” – not referring, however, to climate change as a public health issue.

Chile, as mentioned before, seems to have been an exception as a Global South country. Taking the floor on 10-11 October 2013 for the first time, the Chilean delegation stated that the TRIPS Agreement already contained the appropriate flexibility needed to alleviate the problems for access to clean technologies, which might bear on intellectual property. It added that, as it stood, the proposal could diminish the incentives to use environmentally sound technologies in general, maintaining such a position in the following meetings. However, at the meeting on 11 June 2014 this position was softened as the Chilean delegation argued that it considered it pertinent to continue exploring the application of the TRIPS flexibilities in this matter⁴⁸ – without, however, addressing the issue of encouraging long-term investments and, therefore, without explicitly countering the Ecuadorian submission.

From the reading of the minutes of the meetings at the Council for TRIPS, it is noteworthy that the Ecuadorian delegation, as well as other countries of the Global South, did not deny that intellectual property rights may be relevant for the international transfer of climate-related technologies:⁴⁹ the problem they highlighted is the abuse of such rights. Furthermore, although it was recognized that technologies may be licensed on a voluntary basis, it was argued that it did not respond to the urgency of climate change. This is why it is desirable to reach a consensus on the use of those available flexibilities to enable access to climate-related technologies. No substantive modification to the current system was advanced, but rather an enabling interpretation of the provisions of the TRIPS Agreement. The New Zealand delegation, which opposed the submission of the Ecuadorian delegation, took the floor at the meeting of 11-12 June 2013 to argue that “[e]xisting mechanisms consistent with the TRIPS Agreement are likely to be sufficient to deal with any problems arising from the abuse of patent rights” – taking as an example the issue of a compulsory license as permitted in Article 31.

⁴⁸ This is yet another example of how presidential succession also influences, in general, the position adopted at the international level. With the return of Michelle Bachelet on March 11, 2014, a few months before the softening of the Chilean position, the delegation no longer explicitly contradicted the contribution under debate.

⁴⁹ Despite this being the general understanding from both Global-North and Global-South delegations in the analyzed negotiations, it could also be argued that intellectual property rights are indeed a barrier and not necessarily a catalyst of international transfer of technologies. In this sense, Ido, Cerezetti and Pela conclude that “the global legal order, composed of IPRs, WTO and free trade agreement trade rules, global contracts enforced by private arbitration adjudication and unclear and insufficient licensing agreements, enhances – rather than counters – the disparity of powers within this system”. See: Vitor Henrique Pinto Ido, Sheila C. Neder Cerezetti and Juliana Krueger Pela, “Transfer of Technology”. In: *Encyclopedia of Law and Development*, edited by Koen de Feyter et al., 294-297, Edward Elgar Publishing, 2021.

That said, a proper dialogue between Global North and Global South countries did not seem to have taken place in the Council for TRIPS. At the meeting on 28-29 October 2014, the issue was left out of the agenda of the Council for TRIPS as a regular item, and acquired the status of **other business**. The last meeting at the Council for TRIPS to discuss such an issue was held on 7-8 June 2016. Since then, there were no further debates on a possible declaration on climate-related technologies in this forum.

4. PUBLIC HEALTH AND CLIMATE-RELATED TECHNOLOGIES: A CRITICAL COMPARISON AND LESSONS TO BE LEARNED

4.1 Particularities of the Discursive Power

As mentioned before, the magnitude of the HIV/AIDS crisis, with millions of deaths particularly in sub-Saharan Africa, has drawn attention to Global South's lack of access to essential medicines – produced in the Global North.⁵⁰ This immediacy, however, related to deaths resulting directly from the identified problem, is not present in the discourse on climate change. Even though there is consensus regarding the occurrence of climate change, and technological innovation being necessary to a greater or lesser extent in all mitigation and adaptation scenarios,⁵¹ these are still characterized by some level of uncertainty.

This particularity was indicated by Eli da Veiga since the inception of the international regime on climate change and its unsuccessful attempt to imitate the Montreal Protocol signed in 1987.⁵² According to the author, “for ozone, this [cost-benefit] analysis had proved to be quite favorable, in addition to a strong pressure from the public opinion in favor of the adoption of preventive measures against the increase in the risk of skin cancer”.⁵³ Thus, the initial resistance of interested companies “was not long to be replaced by a firm commitment to the renewal of this market by the impact of well-predictable technological innovations”.⁵⁴ The same was not seen in the issue of climate change, however – in which companies strived to maintain the status quo, understanding it as more beneficial and translating it into terms of public interest.⁵⁵ Moreover, in addition, at least in the earlier phases of this regime, “the absence of pressure from the public opinion, as predictable effects of global warming are nothing like the alarming news about skin cancer”.⁵⁶ Likewise, nothing like the magnitude of the HIV/AIDS crisis. This is due, to some extent, to a considerable scientific abstraction, without considering the impacts that directly affect the public health of the most vulnerable communities.⁵⁷

Particularly at this point, a brief discussion about what is conventionally called environmental racism is needed:⁵⁸ even though the climate system is a sole process, the adverse effects of its changes are unevenly distributed throughout the world, and some countries, or even social groups within the same country, bear disproportionately the negative consequences of environmental problems related to climate change. Faced with a framework of environmental racism, there is no alarm and, consequently, no consideration by the Global North to use the

⁵⁰ t Hoen, “TRIPS, Pharmaceutical Patents”, p. 27.

⁵¹ Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva, Intergovernmental Panel on Climate Change, 2014), p. 56.

⁵² José Eli da Veiga, *A Desgovernança Mundial da Sustentabilidade* (São Paulo, Editora 34, 2013), p. 63.

⁵³ *Ibid.*, pp. 63-64.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Mary Robinson, *Climate Justice: Hope, Resilience, and The Fight for a Sustainable Future* (London, Bloomsbury Publishing, 2019), p. 02.

⁵⁸ The term “environmental racism” was coined by Robert D. Bullard in the 1980s, in the sense that institutional racism is a key factor in the environmental decision-making process. On this topic, see: Robert D. Bullard, *Confronting Environmental Racism: Voices from The Grassroots* (Boston, South End Press, 1993), pp. 15-40.

compulsory licensing of climate-related technologies, despite part of their communities are also being severely affected by the extreme events as a result of climate change. These are the poorer and more vulnerable communities, even if located in the Global North; their situation does not generate the same consensus in international negotiations as that facilitated by the aforementioned “bioterrorist” attack on members of the transnational and capitalist classes and politicians from the United States and Canada – which, as mentioned before, contributed to making unsustainable their resistance to the adoption of the Doha Declaration.

At the same time, the scientific evidence has not been well translated into international negotiations within the framework of the UNFCCC, resulting in a gap between nationally determined contributions and the needed reductions in greenhouse gas emissions to achieve the commitment to limit global warming to 1.5°C above pre-industrial levels.⁵⁹

The discourse, therefore, was not consolidated at the time it was taken to the Council for TRIPS. On the contrary, a sign that the discursive power towards compulsory licensing was not consolidated is that the Ecuadorian delegation – which submitted the proposal – agreed to interrupt the discussions at the end of 2014 to carry out a domestic “consultation process”. This process took place, it should be emphasized, concurrently with the negotiations of the Paris Agreement, after the Lima Call for Climate Action, without reflecting the results of one forum in the other – despite the inclusion of intellectual property rights in the discussions of a legally binding document on the international regime on climate change.

Other aspects differentiating the debate about climate change and the universal access to essential medicines was the “human rights” rhetoric. As in the development of the TRIPS Agreement, with the rhetoric of free trade used by the Global-North countries, the discursive strategy of framing intellectual property rights as a “public health” issue and, hence, related to a fundamental right to health, was important for the success of the campaign for universal access to essential medicines.

According to Bhupinder S. Chimni:

The fact that the omnipresence of the discourse of human rights in international law has coincided with increasing pressure on third world States to implement neoliberal policies is no accident; the right to private property, and all that goes along with it, is central to the discourse of human rights. While the language of human rights can be effectively deployed to denounce and struggle against the predator and the national security state, its promise of emancipation is constrained by the very factor that facilitates its pervasive presence viz., the internationalization of property rights. This contradiction is in turn the ground on which intrusive intervention into third world

⁵⁹ According to IPCC in its special report published in 2018, with emissions in line with the current National Determined Contributions under the Paris Agreement, “global warming is expected to surpass 1.5°C above pre-industrial levels, even if these pledges are supplemented with very challenging increases in the scale and ambition of mitigation after 2030 (high confidence)”. See: Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, p. 95. The difference in greenhouse gas emissions is 15 to 30 GtCO₂ per year in 2030 in scenarios conducive to limiting warming at a maximum of 1.5°C above pre-industrial levels to 50 to 58 GtCO₂ per year in 2030 in the average estimate of unconditional national contributions as currently determined.

sovereign spaces is justified. For the implementation of neo-liberal policies is at least one significant cause of growing internal conflicts in the third world.⁶⁰

Incorporating the language of human rights in the discursive strategy is relevant because, as mentioned, “from a lay perspective, [this] concept (...) can be seen as a widely accepted codex of what governments should and should not do”.⁶¹ This creates a conflict with the **hard law** instituted in the system of intellectual property protection.

In this sense, Chimni explains that “there is the need to make effective use of the language of human rights to defend the interests of the poor and marginal groups”⁶² as a discursive strategy, in order to draw attention to the problems of the dominant economic system, as well as for non-compliance of the Global North to internationally agreed human rights.⁶³ On the other hand, there was no effort to link the issue of climate change to human rights – despite the discussion in published literature and by civil society. Even though the same discussion about priorities is also relevant to the debate about climate change – that is, on the one hand, the continuity of the conditions of survival of human life on Earth and, on the other, economic interests of holders of intellectual property rights –, the delegations did not delve into this question.

The submission by Ecuador gave rise to an effort by some Global South countries to link the principles and objectives of the TRIPS Agreement – and, particularly, the objective of promoting the transfer and dissemination of technologies contained in its Article 7 – with the principle of common but differentiated responsibilities and respective capabilities, a foundation of the international regime on climate change. In this context, compulsory licensing becomes a mechanism that, by mitigating the exclusivity conferred under the intellectual property rights, may allow the fulfillment of commitments under the UNFCCC. The latter, however, are **soft law** in opposition to the hard law character of the provisions of the TRIPS Agreement. Furthermore, the principle of common but differentiated responsibilities and respective capabilities is not broadly accepted in terms of what governments should and should not do – unlike human rights. On the contrary, from the beginning, the interpretation of its content was marked by a dispute between Global South and North. With the signature of the Paris Agreement, its meaning has even been nuanced, as it is operationalized by means of self-differentiation – which, of course, also influences the commitment of international transfer of climate-related technologies.

Finally, the human rights rhetoric, in contrast to the property rights rhetoric of the Global North, highlighted that one of the factors to be considered was the prohibitive price of medicines as a result of strong intellectual property protection.⁶⁴ The same is not observed in the debate about climate change in which the discussion and the framing of the problem proved to be quite abstract.

4.2 Particularities of the Expert Power in the Issue of Climate Change

⁶⁰ Bhupinder S. Chimni, “Third World Approaches to International Law: a Manifesto”, *International Community Law Review*, vol. 08 (2006): 03-27, p. 11.

⁶¹ Hein and Moon, *Informal Norms in Global Governance*, p. 165.

⁶² Chimni, “Third World Approaches”, p. 24.

⁶³ *Ibid.*

⁶⁴ t Hoen, “TRIPS, Pharmaceutical Patents”, p. 27.

As aforementioned, according to Hein and Moon, **expert power** also influences the **discursive power**.⁶⁵ In this sense, after the creation of the Intergovernmental Panel on Climate Change in 1988, science became a fundamental element in the political decision-making process,⁶⁶ as a manifestation of such expert power – which occurred concurrently with the introduction of climate change on the agenda of international law.⁶⁷ The consolidation of the role of scientific evidence took place progressively. However, the reports published in 2014 and 2018 corroborated the understanding that climate change is unequivocal⁶⁸ and that it is extremely likely that anthropogenic greenhouse gas emissions are the dominant cause,⁶⁹ with a high agreement also regarding the need for international cooperation⁷⁰ and, particularly, for the international transfer of environmentally sound technologies.⁷¹ There is also scientific evidence on the impacts of climate change on public health.

In this way, the characteristic scientific abstractionism on climate change was attenuated. Not enough, though. Although the IPCC is currently recognized as the greatest authority on this issue,⁷² there was still room for the emergence of a new ideational factor: the denial movement. Thus, despite being recognized as an authoritative body,⁷³ whose reliance on scientific evidence plays a fundamental role,⁷⁴ the IPCC faces a growing movement of climate denial and, ultimately, questioning of the science itself – including from governments, such as the post-2017 United States and post-2019 Brazil. This denial movement also works as a discursive strategy to maintain the *status quo*, while scientific evidence indicates the need for an urgent and radical change in the dominant economic system.

The same was not observed in the campaign of universal access to essential medicines. There was not even an attempt to deny the problem itself: millions of deaths in the Global-South due to the lack of access to medicines that were already available in the Global-North. The disagreement, then, is limited to the cause and possible solutions to the issue of affordability of medicines and this is where the discourse was important: linking public health, as well as the **human rights** rhetoric, with the protection of intellectual property rights. In the case of climate change, on the contrary, the problem itself – that is, the causes and the harmful effects of climate change – is also questioned.⁷⁵

With evidence of the effects of climate change piling up over the years, Naomi Klein understands that “climate science will no longer be denied” (despite still being). In this sense, “what will be denied is the idea that the nations that are the largest historical emitters of carbon

⁶⁵ Hein and Moon, *Informal Norms in Global Governance*, p. 38.

⁶⁶ Maria Ivanova. “Politics, Economics, and Society”. In: *The Paris Agreement on Climate Change: Analysis and Commentary*, edited by Daniel Klein et al., 16-26, (Oxford, Oxford University Press, 2017), p. 17.

⁶⁷ Daniel Bodansky et al. *International Climate Change Law* (Oxford, Oxford University Press, 2017), p. 98.

⁶⁸ Intergovernmental Panel on Climate Change, *Climate Change 2014*, p. 40.

⁶⁹ *Ibid.*, p. 47.

⁷⁰ Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, p. 448.

⁷¹ *Ibid.*, p. 474.

⁷² Andreas Fischlin. “Background and Role of Science”. In: *The Paris Agreement on Climate Change: Analysis and Commentary*, edited by Daniel Klein et al., 03-15 (Oxford, Oxford University Press, 2017), p. 08.

⁷³ James Garvey, *The Ethics of Climate Change: Right and Wrong in a Warming World* (London, Continuum International Publishing Group, 2008), p. 18.

⁷⁴ Del Weston, *The Political Economy of Global Warming: The Terminal Crisis* (London, Routledge Publishing, 2014), p. 22.

⁷⁵ It is noteworthy, though, that what seems to be a particularity of climate change, that is, a denial of the problem itself, had also to be addressed in the discussions on public health during the pandemic of Covid-19. This is now another point of convergence in the debates on the climate crisis and public health.

owe anything to the black and brown people impacted by that pollution"⁷⁶ – which has already begun to be observed with the attenuated principle of common but differentiated responsibilities and respective capabilities in the Paris Agreement.

Thus, there is a double confrontation to the expert power relating to climate change: on the one hand, the movement of climate denial questioning the scientific evidence as well as its anthropogenic cause. On the other hand, even among those who accept the IPCC's reports as an authoritative argument, a Global North movement questioning its historical responsibility as a criterion for differentiation in the international regime on climate change, as seen in the evolutionary analysis of the interpretation of the principle of common but differentiated responsibilities and respective capacities, since the adoption of the UNFCCC.

In addition, countries of the Global South in geopolitical terms, such as Saudi Arabia, showed at the Council for TRIPS a position consistent with the hegemonic interests and, hence, contrary to the shift towards sustainable energy. This is because its economy is based on oil extraction and, therefore, there is great interest in maintaining the burning of fossil fuels around the world. As the second largest oil reserve and the largest exporter of this fuel in the world, while playing a leading role in the Organization of the Petroleum Exporting Countries (OPEC), there is interest in maintaining the system as it is, as well as the alliance with oil importers in the Global North. This delegation notably refused to discuss the compulsory licensing of climate-related technologies in the Council for TRIPS, suggesting that such discussions should be held under the UNFCCC as the expert forum on this matter. As noted, Chile, a high-income country according to the classification of the World Bank and a member of the Organization for Economic Cooperation and Development (OECD) was also in opposition to Ecuador's submission at the beginning of the discussions.

The silence of least developed countries was striking, even though these are the most vulnerable to the harmful effects of climate change.⁷⁷ These countries, when taking the floor at some point in the debates, in general, did so only to welcome the opportunity to discuss the issue in that forum, without making further considerations about it. Thus, the dispute was primarily between Global North countries and the emerging economies from the Global South. Although it is argued that this is the general tone of most negotiations within WTO, given the institutional and human resources limitations of least developed countries,⁷⁸ what was observed in respect of the issue of universal access to essential medicines was a greater participation of sub-Saharan Africa – that is, the countries most severely affected by that crisis. However, it is noteworthy that such countries have been active in the context of the UNFCCC, defending an interpretation of the principle of common but differentiated responsibilities and

⁷⁶ Naomi Klein, *On Fire: The (Burning) Case for a Green New Deal* (New York, Simon & Schuster, 2019), p. 47.

⁷⁷ For a critical analysis on silence and silencing in international relations, see: Sophia Dingli, "We Need to Talk About Silence: Re-examining Silence in International Relations Theory", *European Journal of International Relations*, vol. 21, n. 04 (2015): 721-742; Sophia Dingli and Thomas N. Cooke, *Political Silence: Meanings, Functions, and Ambiguity* (London, Routledge Publishing, 2018); Elisabeth Schweiger, "Listen Closely: What Silence Can Tell Us About Legal Knowledge Production", *London Review of International Law*, vol. 06, n. 03 (2018): 391-411.

⁷⁸ In this sense, Obijiofor Aginam argues that, when talking about the possibility of an international treaty about the Covid-19 pandemic, international negotiations should take into account the asymmetries and interests of member-states in international organizations – which includes structural and procedural conundrums for the Global-South, such as capacity, policy disconnection and international regulatory and governance misalignment. Therefore, this silence is not a matter of lack of political will by the least developed countries, but more related to structural limitations to their participation on such negotiations. See: Obijiofor Aginam, "The Proposed Pandemic Treaty and the Challenge of the South for a Robust Diplomacy", *South Views n. 218*, available on: <https://www.southcentre.int/wp-content/uploads/2021/05/SouthViews-Aginam.pdf> (accessed 16 March 2022).

respective capabilities to imply commitments both for Global-North countries and for the largest emitters of greenhouse gases among Global South countries.

In the Council for TRIPS, therefore, the Global South was not successful in operating as a bloc on the issue of climate change, contrary to what was considered to be fundamental for its success on the issue of universal access to essential medicines. At that time, as mentioned, despite different conditions in social and economic terms, the Global South was “extremely well-prepared and operated as a bloc”.⁷⁹

⁷⁹ t Hoen, “TRIPS, Pharmaceutical Patents”, pp. 42-43.

5. A COUNTERPOINT: THE FAST-TRACKING PROGRAM AND THE UNLEARNED LESSON OF CLIMATE CHANGE FOR THE ADVANCEMENT OF DOHA

Lastly, and apart from the discussion about the TRIPS flexibilities themselves and the framing of climate change as public health issue, another intersection between climate change and public health issues has emerged with the adoption by patent offices of fast-track (pilot) programs, which aim to accelerate the process of granting patents – both on environmentally sound technologies and medicine/vaccines. In the database⁸⁰ of measures regarding trade-related intellectual property rights to address COVID-19 created by the WTO, there are three national programs of this type listed: (i) Brazilian prioritization of the examination of patent applications related to innovations that can be used to fight COVID-19 from 7 April 2020 to 30 June 2021; (ii) Russian accelerated consideration of applications and utility models in the field of technologies for combating viruses and associated diseases without charging an additional fee since 23 April 2020; and (iii) United States' Prioritized Patent Examination Pilot Program for small and micro-entity companies since 8 May 2020 and the Fast-Track Pilot Program for Appeals Related to COVID-19 since 15 April 2021.

However, case studies demonstrate both the insufficiency and inefficiency of these programs in widely disseminating patented technologies, as is necessary in cases of climate change and public health, such as the COVID-19 pandemic.

The first fast-track program to be introduced was the “Green Channel”, established on 12 May 2009 by the UKIPO and quickly followed by other patent offices around the world, for instance, the United States, Japan and Brazil. It is worth noting that, at the time, an expert literature had already indicated some of its elements as a disincentive to participate in the program, such as: i) a risk of applying for a technology that is not included in the official classification;⁸¹ ii) the designation of the program as pilot and transient;⁸² and iii) the limitation on the number of participants.⁸³ As a result, the uncertainties regarding the functioning of these programs and the great risk of not having the application granted reduced the interest of potential participants.

According to Antoine Dechezleprêtre, the fast-tracking programs “kept their promises”,⁸⁴ that is, they have met the main goal of reducing the duration of the process of granting patents for climate-related technologies. The author has also measured the number of citations to these patents in subsequent applications and concluded that, at least in the short term, these programs accelerate the dissemination of knowledge, as such patents have received twice

⁸⁰ World Trade Organization, COVID-19: Measures regarding trade-related intellectual property rights. Available from: https://www.wto.org/english/tratop_e/covid19_e/trade_related_ip_measure_e.htm (accessed 17 December 2021).

⁸¹ Eric Lane, “Building the Global Green Patent Highway: A Proposal for International Harmonization of Green Technology Fast-Track Programs”, *Berkeley Technology Law Journal*, vol. 27, n. 02 (2012): 1119-1170, p. 1143.

⁸² Kate Nuehring, “Our Generation’s Sputnik Moment: Comparing the United States’ Green Technology Pilot Program to Green Patent Programs Abroad”, *Northwestern Journal of Technology and Intellectual Property*, vol. 09, n. 08 (2011): 609-628, p. 618.

⁸³ *Ibid.*

⁸⁴ Antoine Dechezleprêtre, *Fast-tracking Patent Applications: An Empirical Analysis* (Geneva, International Centre for Trade and Sustainable Development, 2013), p. 10.

the number of citations.⁸⁵ However, there is no provision in the programs' rules that put as a condition, or even establishes a connection between the accelerated granting of patents and the (international) transfer of technologies.

Regarding the number of applications, Dechezleprêtre concluded that it represents only a small fraction of the patents related to environmentally sound technologies in the same period: from 0.7 per cent in Australia to circa 20.9 per cent in the United Kingdom.⁸⁶ This data suggests that accelerating the process of granting such patents may not be in the best interests of all applicants, and that it is rather suited for patents with a high potential value and commercial viability that may attract investments. A case study specifically on the Brazilian pilot program has also shown a considerably smaller number of participants than expected.⁸⁷

On the other hand, there is still no data available for a comprehensive case study on the fast-tracking programs for technologies related to COVID-19. At least the United States' program was created to encourage independent and small businesses to bring COVID-related inventions to market more quickly, as explained in the USPTO announcement.⁸⁸ This demonstrates the targeting to companies that showed interest in the previous experience in the area of climate-related technologies, in which we could observe a strategic use of such programs by start-up companies to attract investment. However, the COVID-19-related programs were designed as pilot and temporary, thereby overlooking the main criticisms regarding the experience on climate-related technologies.

Furthermore, it is noteworthy that such fast-tracking programs reinforce the logic whereby innovation and a wider access to technologies are expected to be sufficiently addressed by the very regular functioning of the system of protection of intellectual property rights, rather than by enabling open science and other forms of access. In addition, these programs may lead to a lower quality in the application of the patentability criteria, as patent offices are expected to grant patents in a shorter time – and, therefore, these programs are themselves a problem and its adoption should not be encouraged when discussing TRIPS flexibilities, because the strengthening of the patentability criteria is necessary in order to ensure that patents are granted only for real technological innovations.

Besides that, as mentioned, granting a patent is not enough to guarantee the dissemination of patented technologies. Although there is an expectation for transfer of technologies, in the words of Ido, Cerezetti and Pela, “while ToT [transfer of technology] is conducted mostly through licensing agreements, it is well-known that any successful ToT policy requires efforts related to infrastructure, skilled professionals and an enabling innovation ecosystem, among others”⁸⁹. None of these issues are addressed in the fast-tracking programs for climate-related technologies or for vaccines. Therefore, fast-tracking programs show significant pitfalls and represent a misleading “solution”.

⁸⁵ Ibid., p. 12.

⁸⁶ Ibid., p. 07.

⁸⁷ Batista, *Mudanças Climáticas*, pp. 140-147.

⁸⁸ United States Patent and Trademark Office, *USPTO announces COVID-19 Prioritized Examination Pilot Program for small and micro entities*. Available from: <https://www.uspto.gov/about-us/news-updates/uspto-announces-covid-19-prioritized-examination-pilot-program-small-and>(accessed 17 December 2021).

⁸⁹ Ido, Cerezetti and Pela, “Transfer of Technology”, p. 294.

6. CONCLUSION

Climate change is certainly a public health issue.

As reported by IPCC recently, climate change has adverse effects on human health by increasing the exposure and vulnerability to climate-related stresses and decreasing the capacity of health systems to manage changes in the magnitude and pattern of climate-sensitive health outcomes.⁹⁰ In addition, the same communities that are disproportionately targeted in the climate crisis also suffer severe public health issues – from the HIV/AIDS crisis in the 1990s to COVID-19 since 2020.

However, this was not reflected in the realm of international negotiations – particularly taking into account the discussions in the Council for TRIPS. Ecuador attempted in 2013 to bring about a harmonized reading of the international regime on climate change and the TRIPS Agreement, relying on the precedent of the Doha Declaration on the TRIPS Agreement and Public Health, to facilitate the international transfer of climate-related technologies and thus avoid, *inter alia*, climate-sensitive health risks. In the follow-up meetings at the Council for TRIPS, countries seemed to have generally agreed that international transfer of such technologies is relevant for addressing climate change. They also agreed that intellectual property rights play an important role in promoting both the development and dissemination of technologies. Every country that made a statement during the debates of Ecuador's submission – be it from the Global North or the Global South – agreed on this point. Still, those discussions were unfruitful.

Fast-tracking programs put in place by national patent offices to accelerate the process of granting a patent on COVID-19-related medicine/vaccines have not assimilated the main criticisms regarding the previous experience on climate-related technologies and does not represent a solution for a wider dissemination of technologies.

Based on the above analysis, we can formulate the following observations:

- i. Legally, there is no impediment for countries to implement compulsory licensing as a measure to address climate change and its effects on public health.
- ii. Framing climate change as a public health issue is relevant in terms of discursive power from the perspective of Global South countries. There is no doubt that adverse effects of climate change are a public health issue, as the IPCC and the WHO have recognized in recent documents. Considering broader access to climate-related technologies as a public health issue will link it to human rights rhetoric and allow us to address climate change in a **hard law** framework.
- iii. Thus, as we look towards actions regarding climate change, we must learn from the experience in public health. But the opposite is also true: the response to public health issues (the COVID-19 pandemic, for instance) must also learn from the experience in climate change, such as the case studies evidencing the insufficiency and inefficiency of the fast-tracking programs to provide for a wider access to environmentally sound technologies.

⁹⁰ Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, p. 240.

- iv. Besides the discursive power in the realm of international negotiations, because Global South countries face different challenges in addressing both climate change and public health issues, it is also important to take into account, when developing national strategies, how these issues mutually converge and impact each other.
- v. Considering that 2021 and 2022 were decisive years for climate action, as well as the revival of the discussion about flexibilities of the TRIPS Agreement in light of the COVID-19 pandemic, such discussion is timely as there is room for the discussions to evolve from the 20th anniversary of the Doha Declaration.

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