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Securitização ambiental na Política Internacional: uma análise de discursos de lideranças políticas no contexto do Acordo de Paris

Securitización Ambiental em la Política Internacional: un análisis de discursos de liderazgos políticos en el contexto del Acuerdo de París

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Abstract

Considering the relationship between environmental problems and international security, this paper questions whether there has been, in recent years, a movement by political leaderships to securitize environmental problems? The methodology applied in this paper was a bibliographical review on securitization and its relationship with environmental discussions. Then, we proceed with a discourse analysis of important political leaderships in the context of the birth of the Paris Agreement. As a result, we observed that, academically, the debate on the environment and security still lacks many studies. And, although it is not possible to affirm that there is a movement of securitization on the part of international political leaderships, in the context of COP-21 there were important speeches associating environmental problems with an urgent threat to the future of humanity.

Key-words: Environment. Climate Change. Securitization. Discourses. Paris Agreement.

Resumo

Considerando a relação entre os problemas ambientais e a segurança internacional, este artigo questiona se houve, nos últimos anos, um movimento das lideranças políticas para securitizar os problemas ambientais? A metodologia aplicada neste artigo foi uma revisão bibliográfica sobre securitização e sua relação com as discussões ambientais. Em seguida, procedemos a uma análise do discurso de importantes lideranças políticas no contexto do nascimento do Acordo de Paris. Como resultado, observamos que, academicamente, o debate sobre meio ambiente e segurança ainda carece de muitos estudos. E, embora não

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seja possível afirmar que exista um movimento de securitização por parte das lideranças políticas internacionais, no contexto da COP-21 houve discursos importantes associando os problemas ambientais a uma ameaça urgente ao futuro da humanidade.

Key-words: Meio Ambiente. Mudança do Clima. Securitização. Discursos. Acordo de Paris

Resumen

Considerando la relación entre los problemas ambientales y la seguridad internacional, este artículo cuestiona si ha habido, en los últimos años, un movimiento por parte de los liderazgos políticos para securitizar los problemas ambientales. La metodología aplicada en este artículo fue una revisión bibliográfica sobre la titulación y su relación con las discusiones ambientales. Luego, procedemos con un análisis del discurso de importantes liderazgos políticos en el contexto del nacimiento del Acuerdo de París. Como resultado, observamos que, académicamente, el debate sobre medio ambiente y seguridad aún carece de muchos estudios. Y, si bien no es posible afirmar que exista un movimiento de securitización por parte de los liderazgos políticos internacionales, en el contexto de la COP-21 hubo importantes discursos asociando los problemas ambientales con una amenaza urgente al futuro de la humanidad.

Palabras-clave: medio ambiente. Cambio Climático. Securitización. Discursos. Acuerdo de París.

Introduction

There is already a consensus that climate change has an expressive anthropogenic component and that its consequences affect the world population in different ways. In recent years, discussions have increased about conflicts generated by scarcity of resources, migrations induced by environmental problems, damage to agriculture due to extreme temperatures and loss of territory due to rising sea levels. Although some of these consequences are still isolated, the fact is that important scientific institutions, such as the Intergovernmental Panel on Climate Change (IPCC) attest that, in the path that humanity has been following, if no significant reduction in global emissions of greenhouse gases (GHG) is made, these consequences will increase (Franchini et al. 2017; IMCCS, 2021).

Aware of these consequences, our paper aims to discuss the relationship between environmental issues and international security. We

question if there has been, in recent years, a movement by political leaderships to securitize environmental problems? To carry out this work, through a bibliography review, we first highlight the contributions of the Securitization Theory of the Copenhagen School and discusses its arguments for the development of the studies that investigate the relationship between security and environmental problems. Afterwards, we carry out a discourse analysis of important political leaderships for environmental governance in the context of the Paris Agreement, looking for elements that indicate whether or not there is an attempt to securitize the climate issue. As this discussion involves many aspects, it is noteworthy that this work does not intend to verify whether the identified securitization attempts were effective or not. In addition, our work aims to fill a gap in this debate, since, as will be shown later, there is a scarcity of works that make this link that we are proposing.

Securitizing an issue and the environmental agenda

In the field of international security studies, it is common for authors to diverge on the concept of security, depending on their theoretical affiliations. There are those who defend the exclusivity of the sovereign State as the main object of reference, such as realists and neorealists, and others who advocate a broader concept, such as constructivist and critical theorists, who offer an approach that embodies a concern for human beings. It was in the constructivist approach that the Securitization Theory of the Copenhagen School was established, having as one of its pillars the idea that securitization takes place through a social process (Malik, 2015).

Constructivism considers that international relations are socially constructed through meanings, identities, what certain agents believe and also through the observation of analysts about certain phenomena. For the Securitization Theory, they are social processes that determine whether a given issue is a security issue or not. Thus, depending on how it is interpreted, any subject can be a security issue and, consequently, contrary to traditional approaches in International Relations, the Securitization Theory goes beyond the sovereign State, considering multiple reference objects (Malik, 2015).

Of course, if any issue can be a security issue, none will be. To avoid this problem, Buzan et al. (1998) suggest three criteria for identifying a security issue: (1) the presence of an existential threat; (2) the need to act to prevent a given threat must become a priority; and (3) the possibility of breaking the rules that govern the relationship between agents under normal

conditions. In any case, securitization is a self-referential practice, because it is in the social process that the subject becomes a security issue, being presented as such, and not because it is necessarily a threat.

We also consider that an issue is usually presented as an existential threat by elites, but the next step depends on an audience's acceptance that that threat is real and of concern to everyone involved in the context. Only then, emergency procedures can be adopted, such as removing that subject from a policy field under normal conditions and the possibility of breaking the rules (Malik 2015). The points highlighted above about securitization and the explanatory power of the constructivist approach are important in understanding how the securitization of environmental issues has developed over time.

Hough (2015) argues that the securitization of environmental issues in international relations is still a debate far from a consensus. Although securitization does not necessarily refer to the militarization of an issue, some scholars believe that the environmental issue should not be militarized. Others, like traditional realists, advocate that issues that are not military in nature should not be securitized. An alternative path, which is perhaps one of the most promising, and which only began to be developed in the 1990s, places environmental issues in the perspective of human security, understanding that thousands of people die from air pollution and other consequences climate change. Allenby (2000) also points that the intersection between national security and environmental problems started to become more clearly when the stability of the world's ecosystems began to be questioned, in the end of Cold War and the 20th century. Hence, the

implications to States, more importantly, their societies, became undeniable.

One of the first debates on this issue focused on the State, highlighting the connection of climate and key issues in the security debate, such as war and conflict. At the origin of these problems would be global warming, scarcity of resources such as water, environmental disasters, floods, diseases and refugee movements (Hough, 2015). To this day, many believe that these are isolated problems and still far into the future. However, these problems are systemic and are already happening, as shown by data from institutions such as the IPCC on high temperatures in tropical areas of the globe, the challenges of societies dependent on agriculture, sea level rise, forest fires and the spread of pests (Wallace-Wells, 2019). The point is, if before the debate was about the connection of these problems with the State, today it is increasingly evident and inseparable from the impact on human beings' lives.

Another argument that reinforces the seriousness of the situation is the discussion about the Anthropocene. Especially from the 1970s onwards, the increase in scientific evidence reinforced the impact of human activity on the environment, aggravating certain environmental problems and increasing global warming. The pressure of human beings on the planet allowed the disruption of systems essential to the stability of life, and the result is that since the Industrial Revolution the Earth has abandoned the Holocene period, abandoning a stability of the last twelve millennia (Franchini et al. 2017).

At this point, we need to clarify what we are calling international environmental problems and what climate problems are. The first are "those impacts on the natural environment

of human activities that some significant set of people view as negative and that have either a transboundary or international commons aspect" (Mitchell, 2010, p. 21). This is, a problem exists, in fact, when it is perceived as such by a set of actors who understand it as so. A climate problem, on the other hand, is related to the period in which we live, the Anthropocene, and concerns, above all, global climate change and global warming, which in turn are also international environmental problems.

In the last thirty years, in addition to the increase in scientific evidence, it is possible to identify countries and international organizations that carry out initiatives that bring the environmental issue closer to the field of security. Often this happens only in a discourse, but, as seen, it is in the social process that securitization takes place. For example, in 1994, Russia adopted a declaration stating that environmental security was part of the country's national security. In 2012, Brazil mobilized the armed forces to fight fires in the Amazon, signaling the concern with this problem (Hough, 2015). It is also noteworthy, as stated by Santos (2015) that, although the IPCC presents itself as a neutral institution, aspects of securitization can be identified in its discourses on global warming. For the author, this securitization is shared by Small Island States, as they have high levels of vulnerability and exposure to rising sea levels caused by climate change.

In a recent work, Mendes et al. (2020) questioned whether vulnerability to climate change increased or decreased a country's attempt to securitize an issue. According to the authors, the hypothesis that a country with a higher level of vulnerability would be more likely to securitize the climate agenda does not hold, as the information available to deal with

this issue may be sufficient for policy making, and how emergency measures can lead to political instability, it is preferable to deal with the issue within traditional channels. In other words, in the debate on the relationship between the environmental agenda and international security, it is necessary to be aware of the existence of a series of elements.

It is also necessary to consider the arguments of those who are against the inclusion of environmental issues in security studies. According to Deudney (1990), analytically it would be misleading to think of threats to the environment as threats to national security, because its traditional focus would be intra-state violence and not environmental problems. Furthermore, according to him, environmental degradation is not likely to cause wars between states. Note that this reasoning reflects a logic that does not consider human security as an analytical object of debate and, in addition, as already pointed out, securitization does not necessarily refer to the militarization of an issue.

Although it cannot be said that climate change has already caused conflicts between States, in the domestic sphere the situation is different. Climate change already has effects on peace and security, for example in armed conflicts in institutionally fragile contexts, and the trend is that with the increase in temperature this will intensify. Although climate is part of the agenda of important international security agents, such as the European Union and the North Atlantic Treaty Organization (NATO), there is still a long way to go, thinking in terms of State security and human security (IMCCS 2021).

Furthermore, Deudney's (1990) argument about the focus on intrastate security can also be criticized, since an event potentially harmful

to the environment can start domestically and affect other countries and regions as well. For Carter et al. (2021), the consequences of climate change are transboundary and have a systemic impact, varying in scales and dynamics, depending on the geographic conditions and socioeconomic contexts of the affected places. Again, an approach that pays attention to the implications of these developments on international security is important, as only in this way can adaptation and mitigation planning be able to build an effective resilience structure.

After these brief considerations on the environmental theme in the field of security, what is observed in the theoretical sphere is that there is still much disagreement and a scarcity of works on the articulation between the themes. In practice, initiatives by countries and international organizations were pointed out in the articulation between these themes, but there is still a lack of studies to know the contribution they have to the securitization of the environmental theme.

Environmental Security in the international politics of the Paris Agreement

Resuming the question that guides this paper, if there has been, in recent years, a movement by political leaderships to securitize environmental problems, an analysis will be made of the initiatives of international policy agents that have elements that can be interpreted as attempts to securitize the environmental theme. Speeches by political leaderships will be analyzed – former US President Barack Obama, former US Vice President Al Gore, Pope Francis and the Executive Secretary of the United Nations Framework Convention on Climate

te Change (UNFCCC), Cristina Figueres; and the environmental NGO Greenpeace. These agents were chosen because it is assumed that their positions were important in the context that led to the establishment of the Paris Agreement in 2015, and also because, they can be understood, according to theory, as elites which discourses matters to determined audiences.

By political leadership, we are assuming that it is an actor or a set of actors that can play important roles in a given negotiation or issue, depending on their attributes. As stated by Wettestad (1999), a leadership is normally focused on the success of a negotiation according to the values that guide their understanding of success. Underdal (2002) goes beyond this dimension of negotiation, thinking of a more diffuse and subtle process, where leadership may not present itself explicitly and will depend on the observer's identification of his role in the issue.

As discussed, the constructivist contribution to security studies believes that securitization takes place through a social process, and one of its primary components is discourse. Texts, pronouncements, statements and images are examples of speeches, as they can contain words or symbols with meanings that go beyond language, which can also be part of a historical and social process (Maingueneau 2003). Discursive manifestations can mobilize a set of elements to try to securitize a given issue.

There are three modalities of Discourse Analysis. For this work, modality 2 (AD-2), commonly associated with the constructivist field, is the one that offers the greatest explanatory contribution, as it considers the concept of discursive formation by Foucault (2008), which establishes that discourses come out of

a specific social place and are also invaded by other discursive formations (Foucault 2008; Mussalim 2006). To operationalize this analysis, we searched for discursive formations in discourses that associate environmental degradation to a situation of risk, crisis, emergency, mass extinction and threat to the next generations.

In 2015, the context in which the discussion on environmental governance took place was marked by the expectation that the 21st Conference of the Parties (COP-21) would manage to establish a strong agreement that would succeed the 1997 Kyoto Protocol. The context was driven by increasing scientific evidence attesting to the serious consequences of GHG emissions and rising global temperatures on the environment. At the time, two countries were fundamental agents (and continue to be): China, currently the country that emits the most GHG annually, and the USA, which occupies the second position annually, but first in the historical emissions (Silveira, 2019).

In August 2015, the U.S. Environmental Protection Agency (EPA) released the Clean Power Plan. The plan, which had the support of President Barack Obama, set limits on carbon dioxide (CO₂) emissions from power plants, and proposed a 32% cut below 2005 levels by 2030 (Clean... 2015). Previously, also endorsed by Obama, the US had presented its Intended Nationally Determined Contributions (iNDC) with a total GHG emission reduction target of 26-28% below 2005 levels by 2025 (US... 2015). These targets represented a concern on the part of the US and Obama with emissions of CO₂, the most harmful to the atmosphere, and of the GHG as a whole. However, for Greenpeace, the proposals were not enough.

The Obama Administration has submitted a plan to reduce US climate impacts that begins to *treat the wound*, but does not *stop the bleeding*. As the world's second largest emitter, the US *must strengthen its commitment* to climate solutions before Paris to ensure an agreement that *immediately* spurs the necessary transition away from fossil fuels and towards 100 percent renewable energy (Greenpeace... 2015, s/p, author's italics).

This position by one of Greenpeace's leaderships shows an association between the environmental problem and a disease, as seen in the terms "wound" and "bleeding". These terms are metaphors, a resource widely used by political agents in speeches in order to bring the target audience closer to the object they want to draw attention to. Metaphors are in the construction of discourses, whether literary or scientific, and allow associating a certain cognitive structure to an object that is being debated (García, 2004). In addition to metaphors, Greenpeace also uses the verb "should" conjugated in the present tense and the adverb "immediately", signaling the degree of urgency it believes should be attributed to the issue.

Although Greenpeace did not consider the Obama administration's proposal enough, the fact is that, at least in his speeches, former President Obama was aware of the enormous environmental challenge facing humanity. On June 25th, 2013, Obama stated:

And someday, *our children, and our children's children*, will look at us in the eye and they'll ask us, did we do all that we could when we had the chance to deal with this problem and leave them a *cleaner, safer, more stable world*? And I want to be able to say, yes, we did. *Don't you want that?* (Remarks... 2013, s/p, author's italics).

In this excerpt, we observe that Obama associates the environmental challenge with a generational issue, questioning his interlo-

cutors about the future they would leave for their children. Obama also uses the adjectives "clean, safe and stable" to refer to the future he is questioning. For many societies, security and stability are attributes considered fundamental to the social order, therefore, by putting these attributes in check, it is believed that there is an initiative on the part of Obama to place the debate on the future of environmental governance in the field of security.

In addition to the highlighted points, the last sentence underlined, "don't you want that?", reinforces the idea of trying to convince an audience about a certain issue. As mentioned, one of the elements that make up the securitization of an issue is the acceptance by an audience that it is urgent. Only in this way is it possible to remove it from a field of politics under normal conditions, and place it in another that allows for the adoption of more urgent actions and even the breaking of rules (Malik, 2015).

Albert Arnold (Al) Gore Jr., former US Vice President, is also known for being an environmental activist, founder of the NGO Climate Reality and, a 2007 Nobel Peace Prize laureate with the IPCC (The Nobel... 2020). In 2015, when speaking at COP-21, he declared:

make no mistake, the *next generation* will inherit the Earth we bequeath to them. [...] If they live in a world in which we have not addressed this crisis [...] they would be justified in looking back at us, this group of us gathered here in Paris in December of 2015 and asking, '*what were you thinking?! Why did you not act?!*' (Envirobeat, 2015, s/p, author's italics).

As we see, this speech has many elements that are similar to the one delivered by Obama. There is a mention of the generational issue and the Planet that humanity is leaving for

our successors. Furthermore, Al Gore uses the same strategy as Obama when questioning his interlocutors about “why did you not act?!”. Furthermore, he also calls the environmental problem a “crisis”, adding an element that refers to something more worrying and that demands more attention.

Another important figure in 2015 was Pope Francis, who published an Encyclical Letter called *Laudato Si*², which addressed the interconnected nature of environmental, economic, and equity issues. In the text, Francis states that “it is necessary to reinvigorate the awareness that we are one *human family*. There are no borders or political or social barriers that allow us to be isolated” (Francisco, 2015, p. 42-43, author’s italics). In another excerpt, he refers to “a *crisis* that is a ‘dramatic consequence’ of the uncontrolled activity of human beings” (p. 4, author’s italics). The text also highlights the presence of terms such as “ecological crisis” and “urgency” in relation to human awareness. As noted, the document mixes elements that give faith, such as the allusion to the “human family”, but it also recognizes the anthropogenic nature of environmental problems. In addition, like Obama and Al Gore, Francisco calls the situation a “crisis”, communicating to his audience, mostly made up of Catholic Christians, about the seriousness of the situation.

One of the reasons for the importance of the encyclical letter is precisely the audience it reaches, bearing in mind the figure of Pope Francis. For Cristina Figueres, UNFCCC Exe-

cutive Secretary at the time, “Pope Francis’ encyclical underscores the *moral imperative* for *urgent action* on climate change to lift the planet’s *most vulnerable populations*, protect development, and spur responsible growth (Pope... 2015, s /p, author’s italics). In this speech, the Executive Secretary highlights the impact on the most vulnerable populations, reinforcing that this cut is also important for the debate. Furthermore, in addition to emphasizing the call for “urgent action”, Figueres also emphasizes that taking care of the Planet would be a “moral imperative”, making use of the assumptions that guide the Catholic Christian faith, and also of concern for future generations. In other words, his speech is also in tune with those of the other agents analyzed, especially in the understanding that urgent action is needed.

Considering Buzan et al. (1998)’s three criteria, what we can observe in each political leadership is: Greenpeace uses metaphors and verbs characteristic to securitization speeches, but asks for an action of the U.S. government into the institutional channels, such as a stronger NDC. Obama and Al Gore allude to the generational issue and a moral commitment of humanity, but they do not make it clear whether this should become a priority. In Obama’s case, although he speaks of values such as security and stability, which are commonly related to security, there is not a possibility of action through the breaking of rules. With regard to Pope Francis and the Executive Secretary of the UNFCCC, both mobilize in their speeches the issue of humanity’s moral imperative towards the environment and the next generations, but also do not go beyond the identification of an existential threat.

2 *Laudato Si* comes from “*Laudato Si, mi Signore*”, a chant sung by St. Francis of Assisi whose meaning was “Praised be You, my Lord”. In the letter, Francisco addresses all of humanity, warning of the consequences of the devastation that has been done to the planet. Published in a book, the text originated the *Laudato Si* Movement, whose goals are inspired by the Sustainable Development Goals of the UN 2030 Agenda (Francisco, 2015).

Conclusion

Among International Relations academics, depending on their theoretical affiliations, there is a series of disagreements about the reading of environmental problems and their impacts through the lens of security studies. Among political leaders and decision makers, focusing on those who bring the environmental issue in their discourse, what is observed is the presence of elements that can be interpreted as attempts at securitization, but which do not go beyond the identification of an existential threat.

We asked whether in recent years there has been a movement by political leaderships to securitize environmental problems? Some elements of the Securitization Theory were presented and its consequences were discussed, when the focus is on environmental problems. In our speech's analysis, what was observed were important leaderships of countries and institutions with speeches that make use of common resources in securitization attempts, such as the use of metaphors and the intention to convince a certain audience about a certain issue. However, none of them said openly that environmental problems must become a priority, or at least, they did not specify how it should be done. And more important, all of them are speaking from institutional channels and saying that measures need to be taken through them, encouraging, for example, the adoption of the Paris Agreement.

Thus, although it is not possible to state that there is a movement of securitization on the part of international leaderships, what is clear is that this is a debate among academics – which needs to be intensified - and that, in the context of COP-21, important leaderships

spoke out by associating environmental problems with an existential threat to the future of humanity. Furthermore, if in previous years there were environmental movements and dispersed voices that denounced environmental problems, what we had in the 2015's context, at least discursive, are speeches of the international political elite relating these themes.

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Brazil's vulnerability to climate change: an analysis based on the University of Notre Dame's Global Adaptation Initiative (ND-GAIN)

A vulnerabilidade do Brasil às mudanças climáticas: uma análise baseada na Iniciativa de Adaptação Global da Universidade de Notre Dame (ND-GAIN)

La vulnerabilidad de Brasil al cambio climático: un análisis basado en la Iniciativa de Adaptación Global (ND-GAIN) de la Universidad de Notre Dame

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Abstract: *This article aims to analyze Brazil's vulnerability to climate change based on the Notre Dame Global Adaptation Initiative (ND-GAIN), from 1995 to 2021. The methodology applied was a bibliographical review on the concept of vulnerability and a case study of Brazil based on the ND-GAIN. As a result, it was observed that Brazil's vulnerability has worsened or decreased in different moments. More recently, Brazil has relatively low vulnerability, but also low response capacity to face the challenges of climate change.*

Keywords: *Climate Change. Vulnerability. Brazil. ND-GAIN.*

Resumo: *Este artigo tem como objetivo analisar a vulnerabilidade do Brasil à mudança do clima com base no Índice de Adaptação Global da Universidade de Notre Dame (ND-GAIN), de 1995 a 2021. A metodologia aplicada foi uma revisão bibliográfica sobre o conceito de vulnerabilidade e um estudo de caso do Brasil com base no ND-GAIN. Como resultado, observou-se que a vulnerabilidade do Brasil aumentou ou diminuiu em diferentes momentos. Mais recentemente, o Brasil apresenta vulnerabilidade relativamente baixa, mas também baixa capacidade de resposta para enfrentar os desafios da mudança do clima.*

Palavras-chave: *Mudança do clima. Vulnerabilidade. Brasil. ND-GAIN.*

Resumen: *Este artículo tiene como objetivo analizar la vulnerabilidad de Brasil al cambio climático a partir de la Iniciativa de Adaptación Global de Notre Dame (ND-GAIN), de 1995 a 2021. La metodología aplicada fue una revisión bibliográfica sobre el concepto de vulnerabilidad y un estudio de caso de Brasil basado en el ND-GAIN. Como resultado, se observó que la vulnerabilidad de Brasil aumentó o disminuyó en diferentes momentos. Más recientemente, Brasil tiene una vulnerabilidad relativamente baja, pero también una baja capacidad de respuesta para enfrentar los desafíos del cambio climático.*

Palabras clave: *Cambio climático. Vulnerabilidad. Brasil. ND-GAIN.*

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Introduction

Recent extreme weather events around the world draw attention to how quickly the impacts of climate change are worsening. In 2023, Brazil faced several extreme events that harmed the health and well-being of the population, housing infrastructure, food production, water availability and the economy. In September 2023, cities in Vale do Taquari, in Rio Grande do Sul, were hit by the passage of an extratropical cyclone that caused strong storms. With the intensity of the rains, the Taquari River overflowed, flooding several cities and forcing thousands of people to leave their homes. The cyclone left 8 people missing and 50 dead (G1, 2023a).

Brazil also faced severe heat waves in September 2023, when the heat was a record for the year in the cities of Rio de Janeiro (39.9°C), Belo Horizonte (37.1°C), São Paulo (36.5°C) and Curitiba (33.1°C) (O Globo, 2023). Another climate event experienced by Brazil in 2023 was the extreme drought in the Amazon region, which has affected over 557 thousand people across the state (G1, 2023b).

As climate change worsens, food production systems and water availability are affected, as well as infrastructure and housing, ecosystem services and biodiversity (IPCC, 2022). Aware of the growing threat that climate change poses to people's lives and the health of the planet, this article's goal is to analyze Brazil's vulnerability to climate change. To do so, a bibliographical review is made to discuss the concept of vulnerability and its focus on climate change. Then, the ND-GAIN is introduced. Finally, a case study is developed mobilizing this index, to understand Brazil's vulnerability from 1995 to 2021, first and last years of which ND-GAIN makes the data available.

Vulnerability to climate change

Vulnerability is a multidisciplinary concept. In common sense, it means "the quality or state of being vulnerable" (Oxford..., n/p, n/da). To be vulnerable means that something or someone may be wounded or is susceptible to receiving physical injury (Oxford..., n/db). It was from the 1980s onwards that this term began to be used more frequently, especially in research on risks and dangers related to environmental and climate issues (Iwama *et. al.*, 2016).

To understand this concept applied to climate change, first it is important to clarify that climate change is a "change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods" (United Nations, 1992, p.3). Its adverse effects are the changes in the physical environment that affect the resilience and productivity of ecosystems, the well functioning of the socio-economic systems and human health and welfare (United Nations, 1992).

Vulnerability to climate change refers to the susceptibility of an individual or social group to suffer damage resulting from a certain amount of exposure to a climate risk (Turner, 2016). Wisner (2003) discusses that it is the combination of different factors that determines the degree of vulnerability of a person, which in turn is directly related to the socio economic condition of individuals, influencing their ability to respond, face, resist and recover from an event. That said, usually the poorest populations are those most exposed to different risks, and, therefore, are the most vulnerable.

Even though all countries are vulnerable to climate change, the intensity of this vulnera-

bility is uneven. This point will be discussed in the following section. For now, it is worth making it clear that people or countries with the fewest resources have the greatest difficulties in facing and adapting to climate change.

To think about vulnerability involves considering the various dimensions in which an individual or group is inserted such as social, economic and political. Regarding a country's vulnerability, it is necessary to understand these aspects, alongside its resources, especially economical and political, to face, adapt and mitigate the effects of climate change. Finally, as is not the purpose of this article to carry out an in-depth bibliographical review on the concept of climate vulnerability, it is believed that this brief mobilization of the concept is enough to achieve this article's main objective.

The Notre Dame Global Adaptation Initiative

The ND-GAIN goal is to summarize a country's vulnerability to climate change associated with its readiness to improve its resilience in the face of climate change. Currently, ND-GAIN measures the vulnerability of 185 countries considering two dimensions: (1) vulnerability; and (2) readiness. Both dimensions have their own index, but the ND-GAIN climate vulnerability index is calculated from the combination of these two.

First dimension concerns vulnerability, meaning the "propensity or predisposition of human societies to be negatively impacted by climate hazards" (Chen *et. al.*, 2023, p. 5). The IPCC (2022, p. 2911) understand hazards as "the potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health im-

pacts, as as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources". This dimension is measured based on six sectors: food; water; health; ecosystem services; human habitat; infrastructure. Each has six indicators, totalizing 36 indicators of vulnerability. From these, the ND-GAIN vulnerability index is calculated varying between the scores of 0 and 1. Scores closer to 0 express less vulnerability, while scores closer to 1 express greater vulnerability. To illustrate, in 2021, the country with the lowest vulnerability was Switzerland (0.244) and the country with the highest vulnerability was Somalia (0.678) (University..., 2023).

Second dimension concerns readiness, meaning a country's capacity "to make effective use of investments for adaptation actions thanks to a safe and efficient business environment" (Chen *et. al.*, 2023, p. 6). This dimension is measured based on three components: economic; governance; social. Each has its indicators, totalizing 9 indicators of readiness. From these, the ND-GAIN readiness index is calculated also varying between the scores of 0 and 1, but here the logic is reversed in relation to the previous index. Here, scores closer to 1 express greater readiness and scores closer to 0 express less readiness. To exemplify, in 2021, the country with the highest readiness was Singapore (0.805) and the country with the lowest readiness was Central African Republic (0.138) (University..., 2023).

Once the two indexes were shown, as well as the 2021 data for each, the results of the ND-GAIN final climate vulnerability index will be presented. Here, the index varies from 0 to 100. The higher the score, the better (less vulnerability and more readiness). On

the other hand, the lower the score, the worse (higher vulnerability and less readiness). In 2021, the least vulnerable country was Norway (75.0), while the most vulnerable country was Chad (27.0) (University..., 2023).

Considering the performances of the top and last countries in the three indexes, something important can be observed. The top performers (Switzerland, Singapore and Norway) are highly developed countries, while the worst performers (Somalia, Central African Republic, Chad) are amongst the 46 countries on the group of the Least Developed Countries in the World (UNCTAD, 2021). This draws attention to a particular aspect, the importance of the resources held by countries, whether financial, political, diplomatic, or others. This importance becomes quite clear when we observe the case of Norway and Chad, countries that have a huge discrepancy between their performances in economic, social and political terms.

On the economic dimension, in 2021, Norway's Gross Domestic Product was 490.29 billion dollars, while Chad's was 11.78 billion (World Bank Data, 2024). On the social dimension, in 2021, both countries had very different performances on the Human Development Index. While Norway had the second best performance with the score of 0.961, Chad had one of the worst performances with the score of 0.394 (United Nations Development Programme, 2024). On the political dimension, both countries had a very different performance on the Corruption Perceptions Index in 2021. While Norway was the 4th country with the least corruption index, with a score of 85 out of 100, Chad was the 20th country with the biggest corruption index, with a score of 20 out of 100 (Transparency International, 2024).

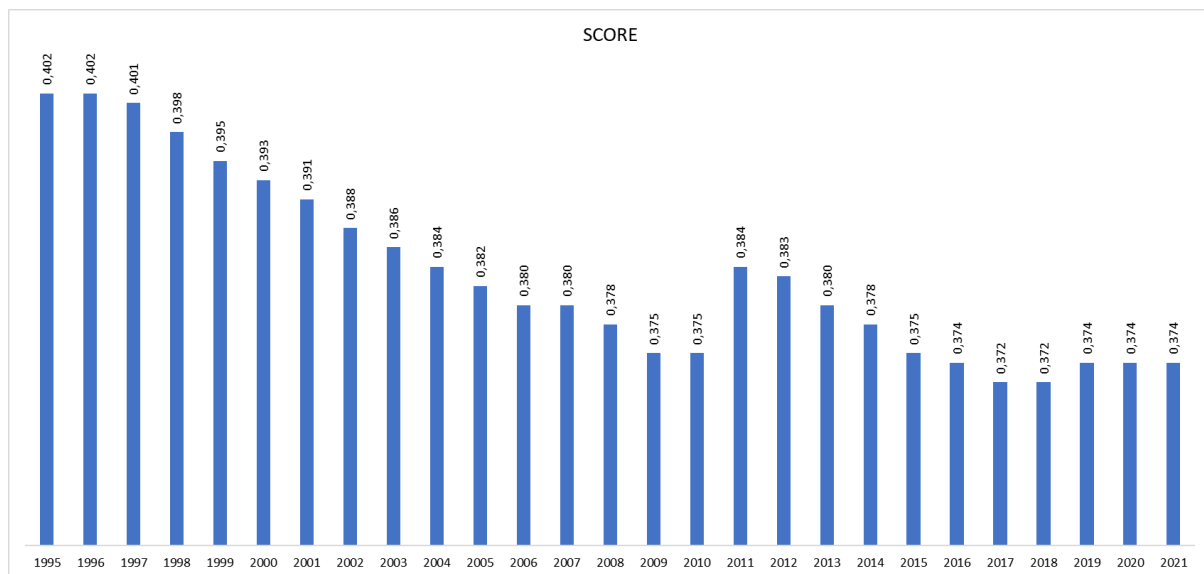
Even though developed countries are the major responsible for climate change, they are the ones with a lower level of vulnerability, because they have better conditions to respond to its threats. That is the case of Norway, who has extensive financial resources and strong institutional capabilities. On the other hand, developing countries are amongst the least responsible for climate change, and yet they are the ones with the highest levels of vulnerability, because they don't have the same conditions to respond to its effects, considering their economical, political and social dynamics are very different from developed countries. That is the case of Chad, one of the poorest countries in the world who does not have the necessary resources to promptly face climate change.

Brazil's vulnerability to climate change (1995-2021)

In order to achieve the objective of this article, this section is dedicated to analyze Brazil's vulnerability. First the country's performance in the vulnerability index considering the six sectors will be explored. Second, Brazil's performance in the readiness index considering the three components will be explored. Finally, its performance in the final climate vulnerability index will be explored.

Figure 1 shows Brazil's performance in the vulnerability index.

Figure 1 - Brazil's performance in the ND-GAIN vulnerability index (1995-2021)



Source: elaborated by the author from University of Notre Dame Global Adaptation Initiative (2023).

Figure 1 shows Brazil's performance in this index improved and worsened in the period analyzed. In 1995, its vulnerability was relatively high, but it decreased steadily year by year until 2010. The country's vulnerability increased again in 2011, falling slightly again in 2012. This decrease continued until 2018. In 2019, Brazil's vulnerability increased again and has remained stable ever since. The years in which Brazil had its best performance were

2017 and 2018 (0.372) and it had its worst performance in 1995 and 1996 (0.402). From 1995 to 2021, Brazil suffered a negative variation of 0.028 in this dimension, which means that it became less vulnerable.

When analyzing Brazil's performance in the six vulnerability sectors, it was identified an increase in vulnerability in two and a drop in the other four. Table 1 shows these results.

Table 1 - Brazil's performance in the six vulnerability sectors (1995-2021)

Sector	1995	2021	Variation
Food	0.424	0.381	-0.043
Water	0.272	0.273	+0.001
Health	0.479	0.381	-0.098
Ecosystem services	0.433	0.437	+0.004
Human habitat	0.637	0.607	-0.03
Infrastructure	0.167	0.163	-0.004

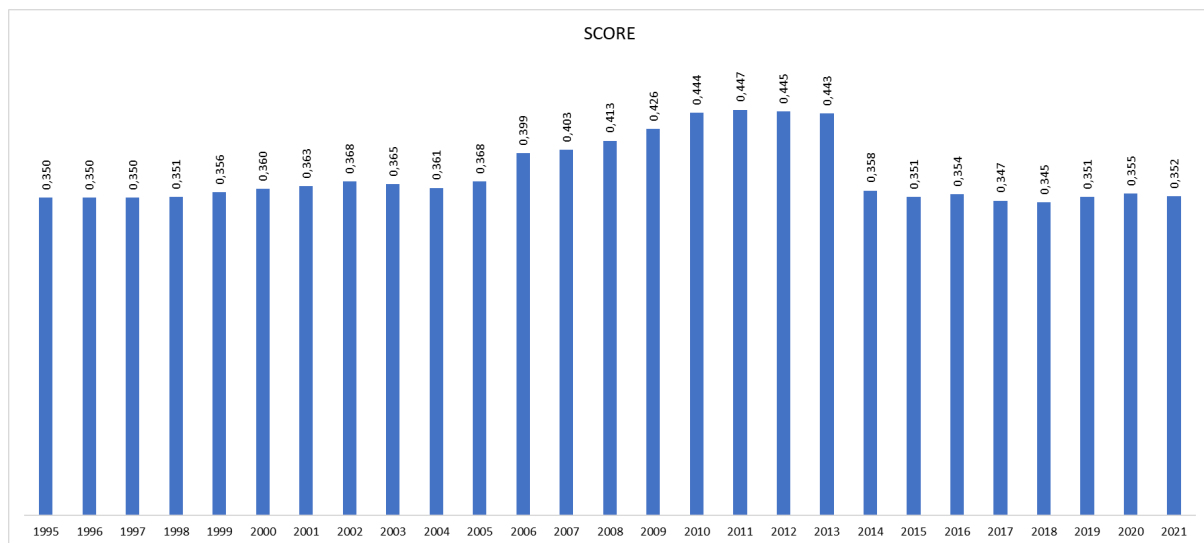
Source: elaborated by the author from University of Notre Dame Global Adaptation Initiative (2023).

Even if the variation was very small, Table 1 shows that the sectors in which Brazil became less vulnerable between 1995 and 2021 were food, health, human habitat and infrastruc-

ture. Otherwise, Brazil became more vulnerable in water and ecosystem services sectors.

Figure 2 shows Brazil's performance on the readiness index.

Figure 2 - Brazil's performance in the ND-GAIN readiness index (1995-2021)



Source: elaborated by the author from University of Notre Dame Global Adaptation Initiative (2023).

As it can be seen in Figure 2, Brazil's performance in this index was more constant than in the previous dimension. It is shown the country's readiness increased from 1995 to 2002, having a little step down in 2003 and 2004, increasing back again from 2005 to 2012. The biggest drop in Brazil's readiness was observed in 2014 (0.358), which continued to decrease in the following years until 2021 (0.352). From 1995 to 2021, Brazil suffered a very small positive variation of 0.002. In general terms, it cannot be said whether the country was less

or more ready, given the close score between 1995 (0.350) and 2021 (0.352). Finally, Figure 2 shows that the years in which Brazil had its best performance were 2011 (0.447), while the year it had its worst performance were 2018 (0.345).

During the analysis of Brazil's performance in the three readiness components, it was identified that there was an increase in one of them and a drop in the other two. Table 2 shows these results.

Table 2 - Brazil's performance in the three readiness components (1995-2021)

Component	1995	2021	Variation
Economic	0.417	0.300	-0.117
Governance	0.495	0.434	-0.061
Social	0.140	0.321	+0.181

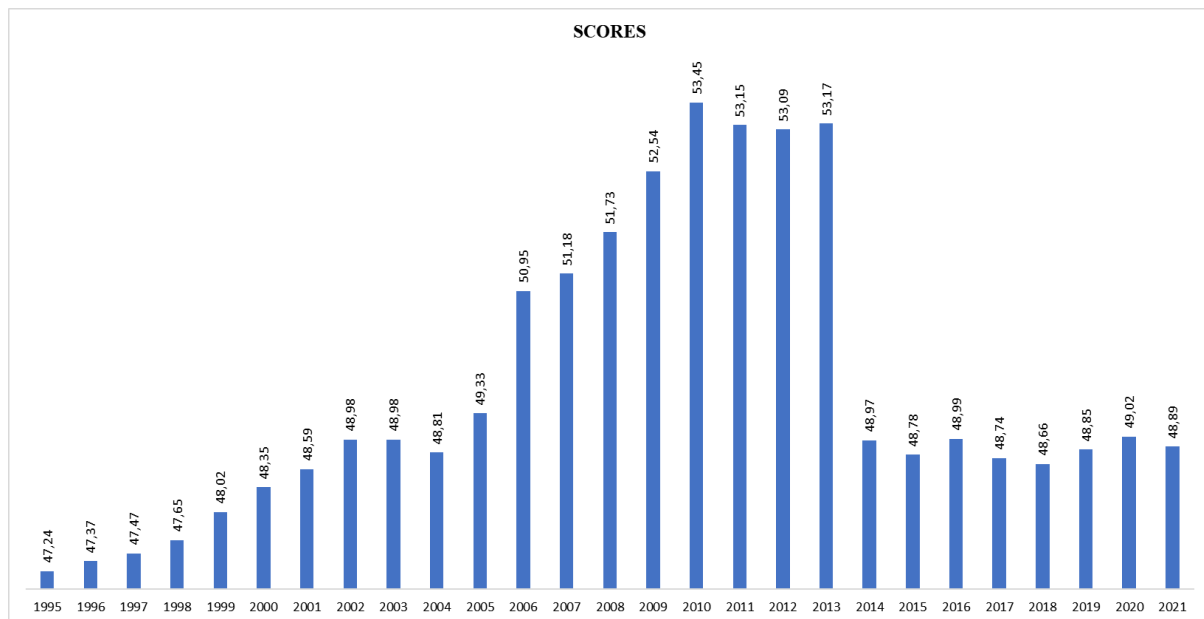
Source: elaborated by the author from University of Notre Dame Global Adaptation Initiative (2023).

Here, the variation was a bit bigger than in the previous dimension. Table 2 shows that the component in which Brazil became more ready between 1995 and 2021 was the social one. On the other hand, Brazil became less ready in the economic and governance components, with the greatest negative variation being observed

for the economic.

Having discussed Brazil's vulnerability and readiness according to the ND-GAIN, now the country's performance in the final climate vulnerability index will now be analyzed. Figure 3 shows Brazil's performance in this index.

Figure 3 - Brazil's performance in the ND-GAIN climate vulnerability index



Source: elaborated by the author from University of Notre Dame Global Adaptation Initiative (2023).

As Figure 3 shows, Brazil's vulnerability to climate change also increased and decreased during the period analyzed. In 1995, the country was significantly vulnerable. This vulnerability began to decrease in the following years with the country's scores becoming higher until 2003. However, in the year of 2004, its score decreased again. In 2005 Brazil's score increased again, which led the country to its period of best improvement performances, which means the country was less vulnerable during the years of 2006-2010. From then until 2013, its score decreased again, but not as significantly as the decrease of the following years.

The most significant drop in Brazil's score, which demonstrates a relevant increase in the country's vulnerability, occurred between 2013 and 2014, when the country went from a score of 53.17 to a score of 48.97. The country's best performance, that is, its lowest vulnerability, was in 2010 (53.45), and its worst performance, meaning its highest vulnerability was in 1995 (47.24). Finally, it is possible to observe a worsening of Brazil's vulnerability in recent years, with its score being less than 50.

Considering the data shown before, one can wonder: if Brazil's vulnerability decreased (Figure 1 and Table 1), why is the country still

vulnerable? That would be because there was also a worsening of the country's readiness, especially in the economic and governance components (Table 2). Therefore, even if Brazil reduces its vulnerability in the six sectors, if its readiness does not improve, the country will remain vulnerable and incapable of facing and responding to the challenges imposed by climate change.

After analyzing Brazil's vulnerability according to the ND-GAIN, it is important to mention that the country's domestic policy conditions to deal with climate issues probably impacts on the positive or negative result as seen in the analysis. Internationally, Brazil is known for participating in institutional structures of climate governance. Since the 1970s, when the environmental and climate agenda was strengthened, Brazil has signed and ratified documents such as the Montreal Protocol (1987), the Kyoto Protocol (1997) and the Paris Agreement (2015). Brazil is also a Party to the UNFCCC, established in 1992, and, historically, participates in the Conferences of the Parties (COP) and other major conferences held within the scope of the United Nations.

Although Brazil has an active history with regard to the environmental and climate agendas, it is worth mentioning that there were times when, domestically, Brazil adopted a more serious stance regarding climate issues, adopting measures and creating policies for mitigation or adaptation, just as there were moments in which the country adopted a less serious approach. The two most evident examples of these moments are the Lula da Silva governments (2003-2010), where some considerable efforts were made, and the Jair Bolsonaro government (2019-2022), where many actions were undone, with the purpose of leveraging other areas, such as the national economy or security.

It is not the purpose of this article to discuss the domestic policies created or undone throughout Brazil's governments between 1995 and 2021 regarding climate issues. For now, it is enough to mention that the way in which governments conducted their actions both domestically and internationally may exercise a direct influence on Brazil's vulnerability to climate change.

Conclusion

Between 1995 and 2021, Brazil became less vulnerable. The country managed to reduce its score from 0.402, in 1995, to 0.374, in 2021, which means it reduced its vulnerability. Regarding the country's readiness, it is hard to say if Brazil indeed improved or not, considering the very small variation of +0.002. Either way, the country had a score of 0.350, in 1995, which is considerably low, and a score of 0.352, in 2021, which is also a low score. That said, Brazil's readiness remained almost the same. Regarding the final index that summarizes a country's vulnerability to climate change, Brazil's performance had an improvement. If the country's score in 1995 was 47.24, in 2021 it was 48.89, which means its vulnerability decreased.

During the analysis conducted, it was evident that the readiness dimension of the ND-GAIN has a very important role in a country's vulnerability, having a great impact on the final result of Brazil's vulnerability to climate change. When analyzing the country's performance in the three components of readiness, individually, it was observed that there is a major deficiency, especially in the economic and governance components. In practice, this means that Brazil does not have sufficient resources to face the impacts of climate change effectively, neither in the economic nor in the governance dimension.

The combination of these factors culminates in the country's reality. Even if Brazil's vulnerability has decreased, the country is still considerably vulnerable. That said, as Brazil has a considerable level of vulnerability and a low level of readiness, the country faces many challenges regarding the adaptation and mitigation of climate change. In some way, the country's vulnerabilities could be managed, but there is an urgent need for improvements, especially in the economic readiness dimension, which may help Brazil to better adapt for the many future challenges to come.

Since this article set out to analyze Brazil's climate vulnerability between 1995 and 2021, it is believed that the objective was achieved. A possible path for new research based on the contribution made here would be to understand the role of different Brazilian governments in this period regarding the climate issue, in order to understand whether the way in which governments conduct domestic and external policy to the climate agenda influences the different levels of vulnerability.

Finally, it is worth highlighting that this study could contribute greatly to the epistemic study of environment and vulnerability in the field of International Relations, especially regarding the elaboration of public policies, including foreign policy, to deal with the effects of climate change in Brazil and in the world. In this sense, the methodology presented by ND-GAIN makes a very important contribution by allowing the assessment of a country's vulnerability to climate change and other global challenges, taking into account its resilience capacity.

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Fontes de crescimento das exportações brasileiras de celulose e dos seus principais competidores no mercado internacional, em diferentes períodos

The sources of growth of brazilian wood pulp exports and its main competitors in the international market, in different periods

Fuentes de crecimiento de las exportaciones brasileñas de pulpa y de sus principales competidores en el mercado internacional

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RESUMO: Este trabalho analisou as fontes de crescimento das exportações brasileiras de celulose e dos seus principais competidores no mercado internacional, pelo método constant-market-share. Os resultados indicaram que o Brasil apresentou maior efeito crescimento efetivo das exportações e a competitividade explicou o desempenho no comércio internacional de celulose dos países considerados.

Palavras-chaves: constant-market-share, competitividade, crises internacionais.

ABSTRACT: This work analyzed the sources of growth in Brazilian cellulose exports and those of its main competitors in the international market, for constant-market-share method. The results indicated that Brazil had a greater effect on effective export growth and the competitiveness effect was relevant to explain the performance in international cellulose trade for the countries considered.

Keywords: constant-market-share, competitiveness, international crises.

RESUMEN: Este trabajo analizó las fuentes de crecimiento de las exportaciones brasileñas de celulosa y las de sus principales competidores en el mercado internacional, utilizando el método de participación de mercado constante. Los resultados indicaron que Brasil tuvo un mayor efecto en el crecimiento efectivo de las exportaciones y la competitividad explicó el desempeño en el comercio internacional de celulosa de los países considerados.

Palabras clave: constant-market-share, competitividad, crisis internacionales.

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INTRODUÇÃO

Dentre os produtos do setor florestal, o Brasil se destaca no comércio internacional, principalmente, da celulose devido à qualidade do produto nacional reconhecida no exterior, elevada taxa de produtividade na cultura do eucalipto e rotação florestal menor que os demais países produtores

e exportadores de produtos florestais, uma vez que o país possui avançada tecnologia silvicultural e condições edafoclimáticas favoráveis à atividade florestal (Indústria brasileira de árvores - Ibá, Ibá 2019; Coelho e Coelho, 2012; Viana, 2019; Food and agriculture organization of the United Nations – Fao, Fao, 2022).

Esses fatores contribuem para a competitividade da celulose brasileira no comércio internacional como comprovada em vários estudos científicos e nas estatísticas (Valverde, 2000; Silva, 2004; Valverde et.al, 2005; Valverde et.al, 2006; Carvalho, 2010; Sousa et al.; 2010; Andrade, 2021, Fao, 2022, Ibá, 2022).

Assim, apesar de crises econômicas, políticas, sanitárias tais como o conflito armado no Iraque em 2003, a crise econômica iniciada nos Estados Unidos a partir de 2008 (*Subprime*), e a Pandemia de Covid-19 que começou em 2019, o setor brasileiro de celulose e papel continuou se desenvolvendo e em expansão no Brasil (Lyrio et al, 2021).

Porém, a competitividade de alguns países como a do Brasil ficou ameaçada, devido à concorrência no mercado internacional, principalmente, a partir de 1990, com a abertura da economia brasileira, maior inserção do país no comércio internacional, surgimento de novos concorrentes e devido a crises internacionais (Rocha e Soares, 2014; Viana, 2019; Lyrio, 2022).

Assim, faz-se necessário analisar frequentemente a competitividade das exportações bra-

sileiras de celulose e dos seus principais competidores no mercado mundial para que ela se mantenha no futuro.

Pesquisas nesse sentido são relevantes, pois podem contribuir para a implementação de políticas voltadas para um melhor desempenho do setor brasileiro de celulose e papel no mercado internacional, bem como auxiliar os agentes ligados a tomada de decisão sobre planejamento da produção, investimentos e comercialização da celulose. Acrescenta-se a isso, a necessidade de atualizar os estudos existentes no que diz respeito aos países concorrentes do Brasil que estão alterando ao longo dos anos.

Assim, o objetivo geral desse trabalho foi analisar as fontes de crescimento das exportações brasileiras de celulose e dos seus principais competidores no mercado internacional: Canadá, Indonésia, Chile e Finlândia, entre 1990 e 2022. Especificamente, analisou-se o desempenho das exportações brasileiras de celulose e dos principais competidores mundiais, de 1997 a 2021, decompondo as exportações brasileiras de celulose e dos seus principais competidores mundiais nas fontes de crescimento competitividade, abertura comercial e crescimento do comércio mundial.

O presente trabalho inova, pois atualiza os trabalhos anteriores analisando subperíodos de crises mundiais ou estabilização econômica e inclui outros países nas análises como o Chile, por ter alterado o *ranking* dos maiores exportadores mundiais da celulose nos últimos anos.

2. METODOLOGIA

O método utilizado para decompor o crescimento das exportações brasileiras de celulose para Brasil, Canadá, Chile, Indonésia e Finlândia, nos efeitos competitividade, Crescimento no valor das exportações e destinos das exportações, foi o *Constant-Market-Share* (CMS) (equação 1) (Carvalho, 2004):

$$\sum_j (V'_j - V_j) = \underbrace{\sum_j (r_j V_j)}_{(a)} + \underbrace{\sum_j (r_j - r) V_j}_{(b)} + \underbrace{\sum_j (V'_j - V_j - r_j V_j)}_{(c)} \quad (1)$$

Onde:

$V'_j - V_j$ = crescimento efetivo do valor das exportações de celulose do país i no mercado internacional;

$V_j = (p \cdot q)$ = valor das exportações de celulose de dado país i ou região i para o mercado j , no período inicial;

$V'_j = (p' \cdot q)$ = valor das exportações de celulose de dado país i ou região i para o mercado j , no período final;

$r_j = [(X_m^j / X_m) - 1]$ → taxa de crescimento percentual do valor das exportações de celulose do país i ou região i entre os períodos inicial e final;

$r = [(X_m' / X_m) - 1]$ → taxa de crescimento percentual do valor das exportações de celulose do país i ou região i , entre os períodos inicial e final; somatório.

Na descrição do método CMS pela equação 1, os países “ i ” considerados para análise foram Brasil, Canadá, Indonésia, Chile Finlândia, maiores exportadores mundiais de celulose. Já os mercados “ j ” considerados para análise foram China, Estados Unidos, Japão, Itália, Holanda e o Resto do Mundo (somatório do valor das exportações de celulose dos demais países), principais destinos das exportações nacionais de celulose.

Os efeitos obtidos pelo método CMS são determinados da seguinte forma:

- (a) Efeito crescimento do comércio mundial de celulose = $\sum_{j=1}^n r_j V_j$
- (b) Efeito destino das exportações = $\sum_{j=1}^n r_j V_j - \sum_{j=1}^n r V_j$
- (c) Efeito competitividade = $\sum_{j=1}^n V'_j - \sum_{j=1}^n V_j - \sum_{j=1}^n r_j V_j$

De acordo com Coelho e Berger (2004) estas equações revelam como o aumento nas exportações pode ser explicado pelo crescimento do comércio mundial, ou, pela concentração favorável – ou desfavorável – das exportações em mercados de rápido – ou mais lento – crescimento, ou ainda, por um efeito de competitividade que resulta de ganhos ou perdas de participação (*market share*) nos diferentes mercados.

Mais precisamente, da equação (1), decorrem então os efeitos, listados por Leamer e Stern (1970) citados por Machado et al. (2006): a) efeito crescimento do comércio mundial, ou seja, o aumento geral das exportações mundiais; b) a distribuição de mercado das exportações de celulose, considerando suas mudanças comerciais de acordo com mercados com maior ou menor dinamismo, sendo esse o efeito de mercado regional ou efeito destino das exportações; e, c) resíduo da diferença entre o crescimento real das exportações e o crescimento que poderia ocorrer caso o país “ i ” mantivesse sua participação nas exportações de cada mercadoria analisada para cada país parceiro, esse é o efeito competitividade.

Carvalho (2004) observa que os efeitos crescimento do comércio mundial e destino das exportações estão relacionados a fatores externos e o efeito competitividade reflete fatores internos do país exportador.

Realmente, o crescimento das exportações

mundiais e o efeito composição da pauta estão fortemente ligados à dinâmica da demanda internacional - total e por bens ou grupos de bens específicos. Já o efeito competitividade pode estar relacionado com a política comercial adotada e a produtividade do país.

Segundo Gilbert (2017), a análise de CMS deve ser realizada em subperíodos divididos em frações curtas, de modo a representar mais, claramente, o caminho percorrido pelo país no cenário internacional.

Além disso, a análise com o CMS do presente trabalho foi feita por período para verificar o efeito de crises internacionais nas fontes de crescimento das exportações brasileiras de celulose e dos seus principais competidores no mercado internacional. Os períodos analisados, conforme Lyrio (2022) foram:

- 1997 (período inicial) a 2021(período final) - Período completo;
- 1997 (período inicial) a 2001 (período final) - Implantação do plano real;
- 2002 (período inicial) a 2006 (período final) - Estabilização da economia;
- 2007 (período inicial) a 2011(período final) - Invasão ao Iraque e a Crise Subprime;
- 2012 (período inicial) a 2016 (período final) - Crise do Euro; e
- 2017 (período inicial) a 2021 (período final) - Pandemia.

O método CMS já foi utilizado nas análises do segmento brasileiro de celulose nos estudos de Medeiros e Fontes (1994), Valverde et al. (2006), Adame et al. (2009), Rocha e Soares (2014), Nascimento et. al. (2019) e Silva Junior (2021).

Para as estimativas, foram utilizados dados anuais sobre valor das exportações de celulose, em US\$/Tonelada, do Brasil, Canadá, Indoné-

sia, Chile Finlândia, maiores exportadores de celulose no mercado internacional, em 2022, devido à indisponibilidade de dados para outros períodos. Além disso, para períodos anteriores outros trabalhos nesse sentido já foram realizados.

Os dados são da FAO e da Uncomtrade (Fao, 2022; Uncomtrade, 2022).

3. RESULTADOS

Na Tabela 1, encontram-se os resultados do indicador CMS para o Brasil, Canadá, Indonésia, Chile e Finlândia no mercado internacional da celulose.

Tabela 1: Resultados referentes ao índice CMS para o Brasil, Canadá, Indonésia, Chile, China e Finlândia no mercado internacional da celulose, 1997 a 2021

ITENS	Ano	Brasil	Canadá	Chile	Indonésia	Finlândia
Crescimento efetivo do valor das exportações	1997-2021	148,17	-13,55	83,99	79,83	71,88
	1997-2001	18,25	-6,45	20,16	5,46	4,03
	2002-2006	53,26	22,21	40,59	37,97	29,11
	2007-2011	39,57	8,85	18,92	32,16	13,19
	2012-2016	11,15	-41,47	-22,85	-23,22	10,46
	2017-2021	14,51	2,60	-13,16	26,51	3,21
Crescimento do comercio mundial	1997 - 2021	19,30	-1.398,12	48,59	25,71	41,91
	1997-2001	48,20	-177,48	42,62	186,43	186,43
	2002-2006	11,95	47,66	19,92	21,92	21,41
	2007-2011	17,65	119,10	49,52	24,38	37,97
	2012-2016	190,66	-67,40	-85,29	-70,67	144,22
	2017-2021	76,85	475,12	-72,43	19,22	212,91
Destino das exportações	1997 - 2021	-123,39	1.054,88	88,28	-58,96	-89,95
	1997-2001	-82,25	478,73	-83,55	-169,15	-167,37
	2002-2006	1,70	16,64	83,30	-4,01	-26,76
	2007-2011	-289,63	-155,24	24,12	-28,31	-12,69
	2012-2016	2.215,91	342,62	74,70	71,40	-157,02
	2017-2021	1.286,88	8.920,74	-19,67	-369,18	-3.633,29
Competitividade	1997 - 2021	204,08	443,24	-36,87	133,26	148,04
	1997-2001	134,06	-201,25	140,92	82,72	80,94
	2002-2006	86,35	35,69	-3,22	82,09	105,35
	2007-2011	371,98	136,13	26,36	103,93	49,38
	2012-2016	-2.306,57	-175,22	110,59	99,26	112,79
	2017-2021	-1.263,73	-9.295,86	192,09	449,95	3.520,38

Fonte: Resultados da pesquisa.

Considerando todo o período de análise, 1997 e 2021, o Brasil apresentou o melhor resultado para o crescimento efetivo das exportações de celulose, seguido pelo Chile, Indonésia e Finlândia. Segundo o IBA 2022 os avanços conquistados são resultados de muitas décadas de investimentos robustos em produção, pesquisas e tecnologias. Nesse período, o efeito crescimento do comércio mundial contribuiu mais para o desempenho das exportações de celulose do Chile e Finlândia e foi desfavorável ao Canadá. Já o efeito destino das exportações contribuiu apenas para o desempenho das exportações de celulose do Canadá, sendo este o efeito com maior contribuição

para as exportações do país. O efeito competitividade contribuiu para o desempenho das exportações de celulose do Canadá, Brasil, Finlândia e Indonésia. Para o Chile observou-se uma perda de competitividade. No caso do Brasil, Chile, Indonésia e Finlândia o efeito competitividade foi o que apresentou maior contribuição para as exportações brasileiras de celulose (Tabela 1). O crescimento da renda nos mercados compradores de celulose do Canadá, EUA e Suécia foi fator determinante do crescimento das exportações de celulose desses países. O contrário ocorreu com a renda dos países de destino das exportações brasileiras e finlandesas

De 1997 a 2001, período marcado pela Implantação do plano real, o Chile e o Brasil apresentaram maiores valores para o crescimento efetivo das exportações de celulose. O efeito crescimento do comércio mundial contribuiu mais para o desempenho das exportações de celulose do Chile, seguido pela Finlândia e pelo Brasil. O efeito destino das exportações contribuiu apenas para o crescimento das exportações de celulose do Canadá. Nesse período o efeito competitividade contribuiu principalmente para as exportações de celulose do Chile e do Brasil. Os demais países sob análise apresentaram competitividade menor e o Canadá perdeu competitividade nesse período ressaltando-se que entre 1997 a 2001 a maior parte da produção nacional de celulose era consumida no mercado interno (Tabela 1).

Para o período compreendido entre os anos de 2002 a 2006, período de estabilização da economia brasileira, verificou-se um maior crescimento efetivo das exportações de celulose do Brasil, Chile e Indonésia. O efeito crescimento do comércio mundial contribuiu mais para o desempenho das exportações de celulose do Canadá. O efeito destino das exportações contribuiu apenas para o crescimento das exportações de celulose do Chile sendo pouco expressivo para os demais países. No efeito competitividade se destacou Finlândia, Brasil e Indonésia. O Chile perdeu competitividade nesse período e o Canadá apresentou com competitividade menor que a Finlândia, Brasil e Indonésia. Esse aumento do efeito competitividade a partir de 2003 coincide com o período em que os Estados Unidos, grande produtor mundial de celulose, intensifica sua política antiterrorismo em resposta ao atentado terrorista do 11 de setembro, destacando dentre ações dessa política a invasão ao Iraque em março de 2003 (Tabela 1).

Segundo Aranha (2019), a estabilidade da economia brasileira proporcionada pelo Plano Real proporcionou um ambiente econômico mais estável e acessível a investimentos e financiamentos, configurando-se como um atrativo para investidores estrangeiros, propício à modernização tecnológica e expansão da infraestrutura logística. Com isso, as empresas do setor de celulose puderam acessar recursos com taxas de juros mais controladas e condições mais favoráveis, impulsionando o desenvolvimento de infraestrutura e tecnologia na produção de celulose, o que pode estar explicando o bom desempenho das exportações nacionais de celulose de 1997 a 2001.

No tocante ao período de 2007 a 2011, caracterizado pela invasão do Iraque e a crise Subprime, o Brasil e a Indonésia se destacaram em termos de crescimento efetivo das exportações de celulose no mercado internacional com os maiores valores observados. O efeito crescimento do comércio mundial contribuiu consideravelmente para o bom desempenho das exportações Canadenses de celulose. O efeito destino das exportações contribuiu apenas para o crescimento das exportações de celulose do Chile, apresentando-se negativo para os demais países. A competitividade foi relevante para explicar as exportações Brasileiras e Indonésias (Tabela 1).

Nesse período de 2007 a 2011, muitas empresas do setor de celulose foram forçadas a adotar medidas de austeridade para preservar a rentabilidade. Isso incluiu cortes de custos, otimização de processos e, em alguns casos, redução de capacidade de produção, o que pode estar explicando o menor crescimento efetivo das exportações de celulose dos países e do efeito destino das exportações, uma vez que os Estados Unidos se configurou nessa época

como grande importador mundial de celulose e principal destino das exportações, segundo FAO (2022). Esses resultados estão de acordo com os de Rocha e Soares (2014) para o Brasil, Canadá e Finlândia.

Ressalta-se que no caso específico do Canadá, o seu desempenho no mercado internacional de celulose pode ser explicado pela existência de políticas públicas no país que incentivam o comércio, como é o caso do Programa de Sustentação ao Financiamento de Projetos de Investimentos no Estrangeiro. Além disso, são também fornecidas análises sobre os mercados potenciais (SIQUEIRA, 2002).

Já o período de 2012 a 2016, com destaque para a crise do euro, o maior crescimento efetivo das exportações de celulose no mercado internacional foi observado para o Brasil e a Finlândia. Estes mesmos países também apresentaram valores superiores para o efeito crescimento do comércio mundial e os demais países apresentaram esse efeito negativo. O efeito destino das exportações foi negativo para todos os países considerados, sendo que o Brasil apresentou o maior efeito negativo. Em termos de competitividade se destacou a Finlândia e o Chile. O Brasil perdeu competitividade nessa época (Tabela 1).

Durante o período da crise do euro (2012–2016) ocorreram diversas instabilidades nas taxas de câmbio e volatilidade nos mercados financeiros. Isso pode ter impactado os custos de produção e exportação da celulose, influenciando a competitividade dos produtores em diferentes regiões.

O bom desempenho da Finlândia pode ser explicado pelo fato de que nesse país a silvicultura é sustentável e assegurada para os próximos 100 anos, sendo que, se após o corte o reflorestamento não ocorrer corretamente, o

uso da floresta é proibido temporariamente e as despesas de arborização podem ser cobradas dos proprietários com base em lei. Além disso, na Finlândia, o governo também concede empréstimos e subsídios para os proprietários de florestas que praticam a silvicultura, produzindo madeira e papel de forma sustentável (Finlândia, 2009, citado por ROCHA e SOARES, 2014).

Analizando o período de 2017 a 2021, período da pandemia do COVID-2019, nota-se que o maior crescimento efetivo das exportações de celulose no mercado internacional foi observado para a Indonésia e o Brasil. O efeito crescimento do comércio mundial contribuiu mais para o desempenho das exportações de celulose do Canadá e da Finlândia. O efeito destino das exportações foi relevante para o Canadá e Brasil. Em termos de competitividade se destacou a Finlândia, Indonésia e Chile. O Brasil e o Canadá perderam consideravelmente competitividade, mostrando o impacto negativo da pandemia nas exportações de celulose desses países (Tabela 1).

No último período de análise, com a pandemia o mundo viveu períodos de *lockdown* e restrições de movimentação. Muitos setores econômicos experimentaram uma redução na demanda por produtos, incluindo papel e derivados de celulose. As interrupções nas cadeias de suprimentos e a desaceleração da produção industrial impactaram a demanda global por celulose. Dessa forma, os menores valores para o crescimento efetivo das exportações de celulose para os países sob análise foram observados nesse período, assim como as maiores perdas de competitividade para o Brasil e o Canadá.

Contudo, o setor de celulose e papel brasileiro organizou-se rapidamente para atender às demandas do novo formato de consumo

de diversos setores econômicos. Mesmo com a pandemia, a demanda por celulose e papel continuou crescente, principalmente da China, Estados Unidos e Europa.

Em síntese, mesmo em períodos de crises econômicas, políticas, sanitárias em nível mundial o setor brasileiro de celulose e papel apresentou-se forte e dinâmico no mercado internacional e continuou se desenvolvendo e em expansão no Brasil ao longo dos anos (LYRIO et al., 2021; MATOS et al., 2021).

4. CONCLUSÃO

O presente trabalho foi possível concluir que o Brasil experimentou o maior valor para o crescimento efetivo nas exportações de celulose, de 1997 a 2021. O Canadá foi o país que mais se destacou nos efeitos crescimento do comércio mundial de celulose e destino das exportações. O Chile e o Brasil foram os países que mais se destacaram em termos de competitividade, naquele período.

Verificou-se que de 1997 a 2001 o efeito crescimento do comércio mundial explicou principalmente as exportações de celulose da Indonésia e Finlândia, seguidos pelo Brasil. O efeito destino das exportações, explicou o desempenho do Canadá no comércio mundial de celulose. Em termos de competitividade destacou-se o Brasil.

De 2002 a 2006, o efeito crescimento do comércio mundial e destino das exportações explicou o desempenho das exportações do Canadá, principalmente. A Finlândia se destacou em termos de competitividade.

Considerando 2007 a 2011, o crescimento do comércio mundial contribuiu para o desempenho das exportações canadenses de celulose. O efeito destino das exportações não foi

representativo nesse período e no efeito competitividade destacou o Brasil.

O crescimento das exportações brasileiras de celulose, de 2012 a 2016, foi explicado pelos efeitos crescimento do comércio mundial e destino das exportações. Os demais países apresentaram valores menores.

Já no período mais recente caracterizado pela Pandemia, o Canadá se destacou em termos de crescimento das exportações de celulose pelos efeitos crescimento do comércio mundial e destino das exportações e a Finlândia apresentou o maior efeito competitividade.

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Falling-Behind: India's space sector and Brazil's attempts to develop its own

Ficando para atrás? O setor espacial Indiano e as tentativas brasileiras

Quedando Atrás: El sector espacial de la India y los intentos de Brasil de desarrollar el suyo propio

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Resumen:

Este breve artículo cuestiona por qué la India ha logrado un desarrollo tan exitoso en el sector espacial. A partir de esta pregunta, se indaga: ¿Por qué Brasil no lo ha conseguido? Se observa que la India mantuvo una inversión sólida a largo plazo en su programa espacial, mientras que Brasil solo invirtió de manera volátil y no sistemática. El artículo utiliza el método comparativo, teniendo como principales parámetros de comparación el desempeño de la industria espacial en ambos países, medido en términos de inversión, etapas del desarrollo tecnológico y resultados. Con esto, se busca analizar cuáles son los factores que llevaron a la India a destacarse en el sector, a pesar de que Brasil también ha tenido grandes avances. Se observa que la India mantuvo una inversión sólida a largo plazo en su programa espacial, mientras que Brasil solo invirtió de manera volátil y no sistemática. Lograr el éxito de un proyecto a gran escala y a largo plazo requiere la priorización de este en un escenario en el que varios gobiernos e incluso regímenes cambiarán. La amenaza externa que siente la India sin duda es un impulsor del desarrollo. Brasil, con un entorno más tranquilo, no tiene este incentivo. Sin embargo, si aspira a proyectarse como un jugador clave y ser líder regional, no podrá dejar de seguir invirtiendo.

Palabras chave: Espacio; Defensa; India; Brasil; Inversión.

Abstract:

This brief article questions why India has achieved such successful development in the space sector. From this inquiry, the question arises: Why hasn't Brazil managed to do the same? The article employs a comparative method, using the performance of the space industry in both countries as the main parameters of comparison, measured in terms of investment, stages of technological development, and results. The aim is to analyze the factors that have led India to excel in the sector, even though Brazil has made significant progress. Achieving success in a large-scale, long-term project requires prioritizing it in a scenario where

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various governments and even regimes will change. It is observed that India maintained a solid long-term investment in its space program, while Brazil only invested in a volatile and unsystematic manner. The external threat that India faces is certainly a driving force behind its development. Brazil, in a more peaceful region, does not have this motivator. However, if it aims to project itself as a key player and become a regional leader, it cannot afford to stop investing.

Key-words: Space; Defense; India; Brazil; Investment.

Resumo:

Este breve artigo questiona o porquê de a Índia lograr um desenvolvimento tão bem-sucedido no setor espacial. A partir desse questionamento indaga-se: Por que o Brasil não conseguiu fazer o mesmo? Vê-se que a Índia manteve um investimento sólido a longo prazo em seu programa espacial e o Brasil só investiu de maneira volátil e não esquemática. O artigo parte do método comparativo tendo como principais parâmetros de comparação o desempenho da indústria espacial, nos dois países, medidas em termos de investimento, etapas do desenvolvimento tecnológico e resultados. Objetiva-se, com isso, analisar quais os fatores que levaram a Índia a se destacar no setor, muito embora o Brasil tenha tido grandes avanços. Lograr o sucesso de um projeto de larga-escala e longo prazo requer a priorização deste em um cenário em que diversos governos e até regimes mudarão. A ameaça externa que a Índia sente com certeza é um propulsor do desenvolvimento. O Brasil, com uma vizinhança mais tranquila, não tem esse indutor. No entanto, se almeja se projetar como player e ser líder regional, não poderá ficar de deixar de seguir investindo.

Palavras-Chave: Espaço; Defesa; Índia; Brasil; Investimento.

Introduction

This paper addresses the cases of India and Brazil and their respective space sectors. While India has a well-established and successful program with good prospects, Brazil has lagged, despite its historical investments in the field. The aim of this paper is to address the reasons for this difference. India was the fourth-largest military spender globally in 2023. At \$83.6 billion, its military expenditure was 4.2% higher than in 2022. I argue here that sustained and long-term investment, priority management, and external threat factors put India's program ahead of the Brazilians. As a rule, military investment is closely tied to aerospace development and its objectives. Figures, particularly those related to investment,

demonstrate priorities assumed by a country and have a clear impact on its Defense Industrial Base. It is important to state that while the main objective of the present paper is to analyze and compare investment in the space programs this does not mean that India is ahead in all defense sectors. It is *important to highlight too that this paper focuses mainly on comparisons among space programs with military ends*. That said, civil programs usually also have military objectives. Middle-range powers such as India, Turkey, and Brazil have special importance in a multipolar world in which alliances will become increasingly important. Nonetheless, this is mainly a defense economics paper. It is based on parameters for comparison put forward by Hartley (2011; 2019), such as those mentioned above. Trans-

forming resources into a well-established program is the core issue. Thus, I address the problem from a mobilizing resources and personnel point of view. Certainly, tactical and strategic considerations will not be disregarded when needed. The comparative reconstruction of the history of both countries' space programs has the objective of determining causality among the variables highlighted, such as the country's initiatives and external threat impacts and the main object of this study: the causes of success of space programs in developing countries. The comparative method allows the researcher to infer causality among phenomena (Bennet; Elman, 2010; Elman 2008). However, a rigorous comparison is a challenge, due to fundamental historical differences.

1.Space Capabilities and Engagement

What are the main capabilities a state can maintain in space and how much do they cost? If considered just in terms of efficiency, going to the moon might not be a good choice. However, defense economics is also about power. Effectiveness and deterrence are more important than short-term expenditures. In order to illustrate space capabilities and their role in 2024, I present some of the main features of the U.S. Space Command:

"The space force's record budget – including a 16% increase in RDT&E funding – and end strength to 9,400 personnel (up from around 8,600) reflect the growing importance of space to current and future DoD operations. The service's main procurement priority was to increase the number of annual launches to 15 from ten. The FY24 missions cover ten for the National Security Space Launch program, placing spacecraft in geostationary

and medium orbit, and five launches for the Space Development Agency's Low Earth Orbit constellation. Key RDT&E programs include resilient missile warning and missile tracking, space-technology development and prototyping, and next-generation overhead persistent infrared satellites (IISS, 2024).

It is clear that RDT&E is the major investment which correlates with an increasing development of space forces. Missile warning and tracking, alongside satellites, are *sine qua non* conditions in the present scenario of great power competitions. Certainly, India does not yet compete with the United States. However, it's development shows a fast pace, and its space program has been promising since the 1990s (Mistry, 1998). Innovation requires risk taking; nonetheless, it is the most solid way of turning the distribution of resources to your favor. Alliances are unstable, and a state must ultimately count on its own efforts (Santos, 2008)

2-The Case of India

The Indian space program was established on November 21, 1963, with the launch of Nike-Apache, an American sounding rocket from the shores of Themba near Thiruvananthapuram on the west coast of India (Vasant, 2009; Mistry, 2009). Since then, India's launch vehicles advanced through the SLV-3 and Augmented Satellite Launch Vehicle (ASLV) towards numerous accomplishments. India launched its first satellite from the Satish Dhawan Space Center in 1980. Since then, it has successfully developed launch vehicles, imaging and communications capabilities and other critical satellites. It has begun to develop counterspace capabilities. The country has several bureaus dedicated to the space domain

both in the military and civil sectors, each with supporting policies. It does not have a comprehensive space force yet. The India Space Research Organization (ISRO) maintains the country's SLVs and spaceports. It is necessary to point out, however, that despite its successful space program, India is import dependent on most of its weapon systems (e.g., 40% in 2018). So, it is not unreasonable to state that India's space program evolved jointly with its nuclear program, primarily taking into account the threats presented by its neighbors: China and Pakistan.

By 2020 India had two operational orbital launch vehicles, the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV). Since 1980, there have been 67 total Indian launches from the Satish Dhawan Space Center. In 2017, India broke records launching 104 satellites with one PSLV.

The document entitled "Technology Perspective and Capability Roadmap" highlighted detailed investments for the second phase of the program and intended to play an "anti-satellite" role from ground & aerial problem". Regarding Mission Shakti, DRDO Chief Sthat Reddy stated that India was in the process of developing different ASAT (Anti-Satellite Weapons) technologies, including directed-energy weapons, lasers, and electromagnetic pulses. However, beyond these general statements and reports, the government of India has not publicized any details of these activities. India could use Nuclear Electromagnetic Pulse weapons for nuclear detonation and to disable satellites, although, as yet, there have been no public statements of intent to pursue such a program.

India's 2018 Technology Perspective Capability Roadmap also declared an interest in "detect, monitor, and jam enemy cellular receivers and satellite communication receivers, or an integrated system to "carry out jamming & spoofing of satellite-based positioning systems". In terms of cybercommunication, by 2019, the government of India had set up the Defence Cyber Agency, the DCA, that is intended to "control and coordinate joint cyber operations". Cyber deterrence against enemy satellites both in space and on their land-based systems is another option.

Indian lunar lander Chandrayaan-3 successfully touched down on the lunar surface on August 23, 2023, making India the fourth nation to successfully land on the moon and the first to land in the south pole region. At a time of heightened international competition, this accomplishment cannot be ignored. According to the CSIS "ISRO's space exploration program is part of a broad government strategy to realize the scientific, economic, and security benefits of space capabilities. India's space program is also seen as a pathway for attracting young Indians into high-technology fields and for ushering in a more technically advanced society" (CSIS, 2020). Communication satellites orbiting the Earth can improve connectivity among rural areas, navigation systems, mariners, and imagery satellites. India can also monitor Chinese developments in the area.

Since 2020, the Modi government has encouraged private-public partnerships in space explorations and has as its main objectives the first human spaceflight mission (Gaganyaan). The south pole region of the moon is believed to have frozen water that could be critical to support human life on the satellite. Other mi-

neral stores, used in electronics, and helium, are capacities being explored. India's accomplishment cannot be understated since Russia failed to land on the South pole of the moon just months earlier.

India developed kinetic physical weapons after China's successful 2007 ASAT developments, calling it the Mission Shakti (strength in Hindi). "It suddenly reminded them that their diverse space assets were now at risk" (CSIS, 2020). While India still does not have the capabilities to co-orbit ASAT capabilities, it is developing the technical requirements with France to build an RPO (Rendezvous and Proximity Operations). Regarding Mission Shakti: On March 27 2019, India successfully launched a Prithvi Delivery Vehicle Mark-II (PDV MK-II) missile defense interceptor at one of its own satellites. Non-kinetic physical weapons are in the plans of the Indian administration, with a focus on electronic weapons, specifically miniaturization of EW elements as payloads on satellites.

3-The Case of Brazil

The main difference in success between Brazil and other nations in space exploration may lie in the historical context and political will that shaped Brazil's approach to long-term projects like a space program. Brazil has experienced periods characterized by volatile elite leadership, where investments in ambitious, long-term projects have fluctuated based on prevailing political ideologies.

Building a robust space program requires sustained investment and consensus within the government to sponsor such endeavors. Historically, mercantilist views, which prioritize the accumulation of power and wealth even at the

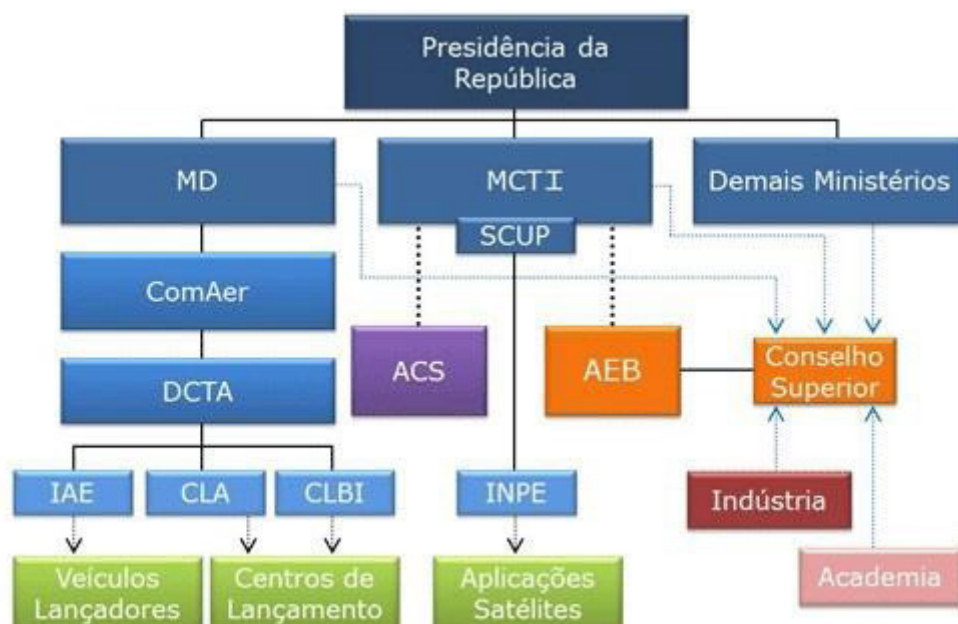
expense of short-term economic gains—have correlated with the high points of Brazil's space program. During liberal periods, however, Brazil's capabilities as a middle power aiming for industrialization and self-sufficiency have deteriorated.

After the 1930s revolution, Brazil's geopolitical position and policy direction leaned towards a mercantilist approach. Investments in defense were viewed as key to industrialization, growth, and the pursuit of national wealth and power (Mattos, 2021). This perspective was influenced by figures like Góes Monteiro, considered the "father of geopolitical thought in Brazil."

By the 1950s, Brazil had established the Instituto Tecnológico Aeroespacial (ITA) in conjunction with the Centro Tecnológico Espacial (CTA) and the Instituto Militar de Engenharia (IME), recognizing the critical importance of research and development for an autonomous space program. During military governments, institutions for the Defense Industrial Base were created, aiming to reduce dependency through strategic industrial policies such as the PND I and PND II.

In the 1960s, Brazil continued to advance in the space sector with the construction of the Centro de Lançamento de Barreira do Inferno in Natal-RN. Brazil successfully launched four sounding rockets at sub-orbital levels, leading to the creation of the Missão Espacial Completa Brasileira (MECB), which aimed to develop national satellites and launch vehicles for launch from Brazilian soil.

Figure 1- The Brazilian Space Program



Source: Antunes, Erich Vieira. 2016, p. 72.

Brazil achieved success in constructing functioning satellites such as SCD-1, SCD-2, and SCD-3, launched from Cape Canaveral in collaboration with China's Taiyuan base. However, one of the notable setbacks to Brazil's space program was the failure to develop a functional space rocket capable of independently launching satellites. The VLS-1 project, initiated in 1984, aimed to achieve this autonomy but faced significant challenges, including mission failures in 1997 and 1999, and a tragic incident in 2003 resulting in the loss of lives.

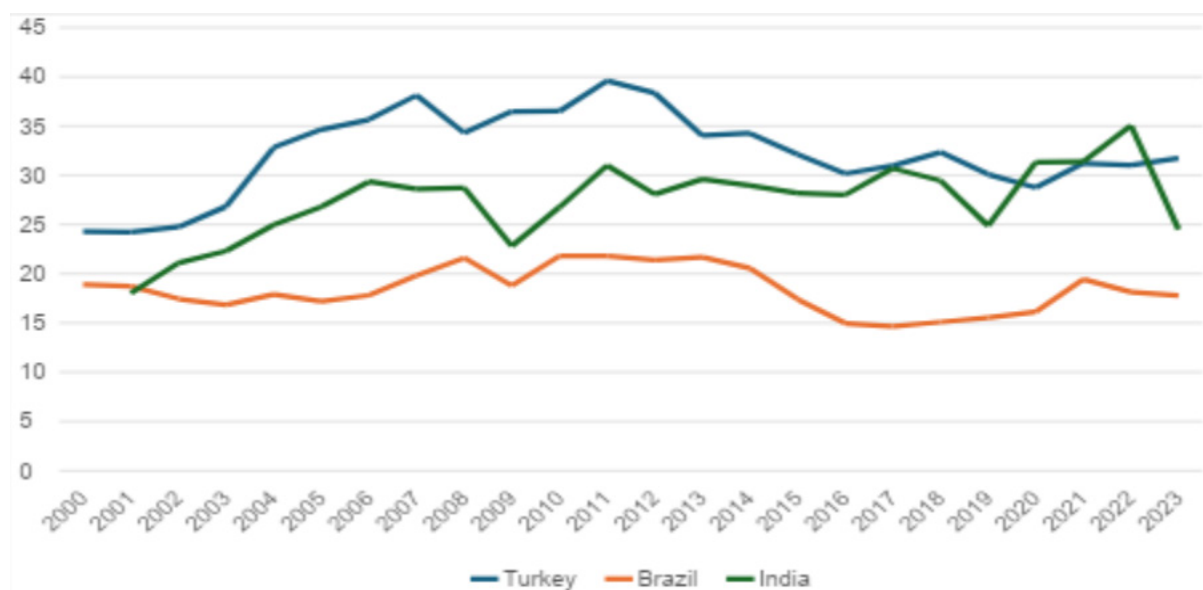
After the 1990s, Brazil's space program faced significant changes. The country's democratization process led to a lack of consistency in addressing national defense issues, with civil society calling for limits to military power and political protagonism. Brazil renounced key ca-

pabilities under Fernando Henrique Cardoso's government, embracing a cosmopolitan, globalized, liberal worldview reflected in treaties banning missiles and nuclear weapons (NPT), for example. Budget cuts further impacted the ability of the space program to procure necessary components for launching systems (Vieira, 2016).

In recent years, Brazil has faced resource constraints for investments in science and technology, opting for a secondary role in global space economy chains. This insertion model reflects a shift towards renouncing strategic autonomy, exemplified by the signing of the Technological Safeguards Agreement (AST) with the United States (BRASIL, 2024). These shifts highlight the challenges and transformations faced by Brazil's space program amidst evolving political and economic landscapes.

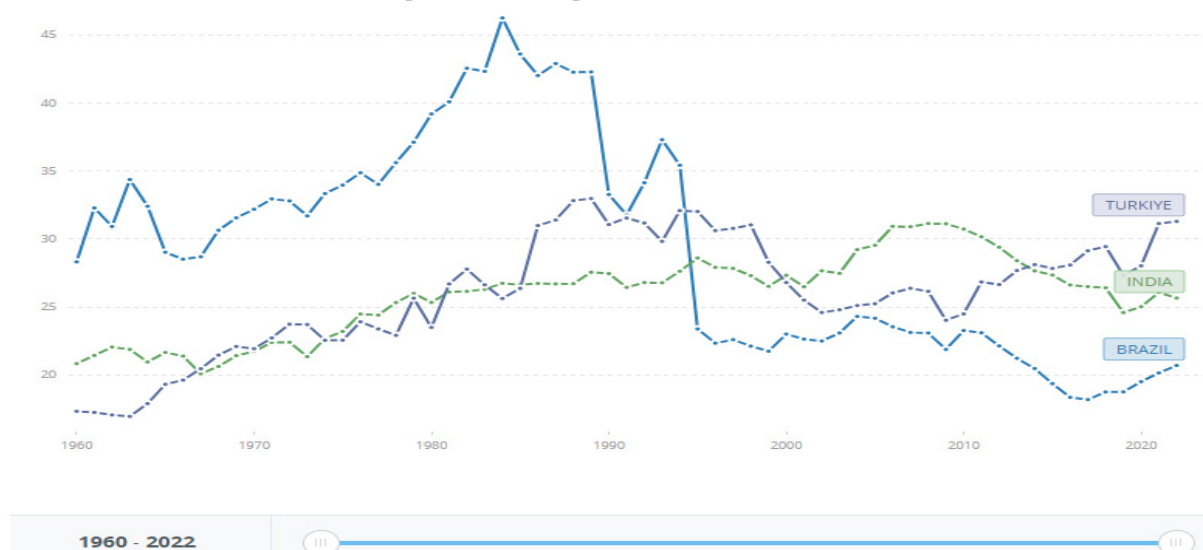
2 It was decided to leave the figure in Portuguese as it is a very specific government structure.

Graph 1- Investment as a share of the GDP %



Source: The Author. IRBD.

Graph 2- Industry Contribution to GDP%



Source: IRBD. The Author

Investment is the fundamental variable, especially through a long-time span, or in the long term, to make a project successful. Space programs require investment, especially in the form of R&D. Governments can change, but a program such as the space program has to be funded and administered, or it will fade as was the case with Brazil. I added Turkey to the graph-to make a point: economists claim that

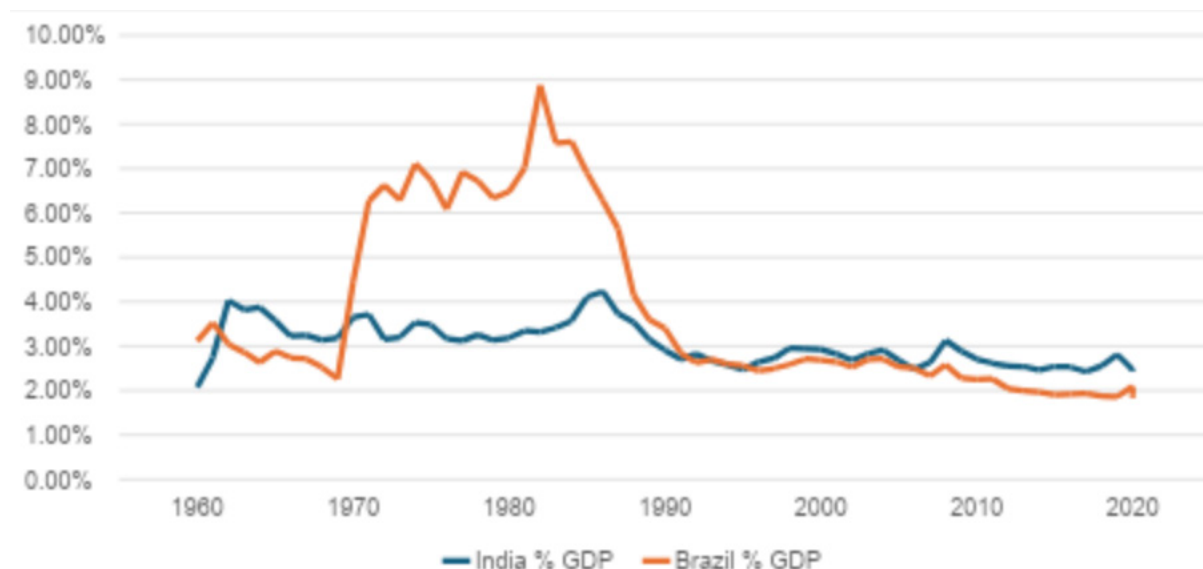
industry downsizing in proportion to GDP is only natural because of productivity. But as illustrated in Graph 2, middle powers may not follow this rule. They are not developed countries with highly specialized and aggregated value services. Industry is still a path for development³.

³ For a critical and normative analysis of the Brazilian space program, see: Ceballos, Durão, 2010.

I include this graph not only to show the abrupt fall of Brazil's industry but also to reinforce that what economists propose as natural/prevaling development – services representing more than industry in GDP – must be analy-

zed carefully. Medium powers, which are not leaders in cutting-edge technology service provision, can benefit significantly from industrial investment.

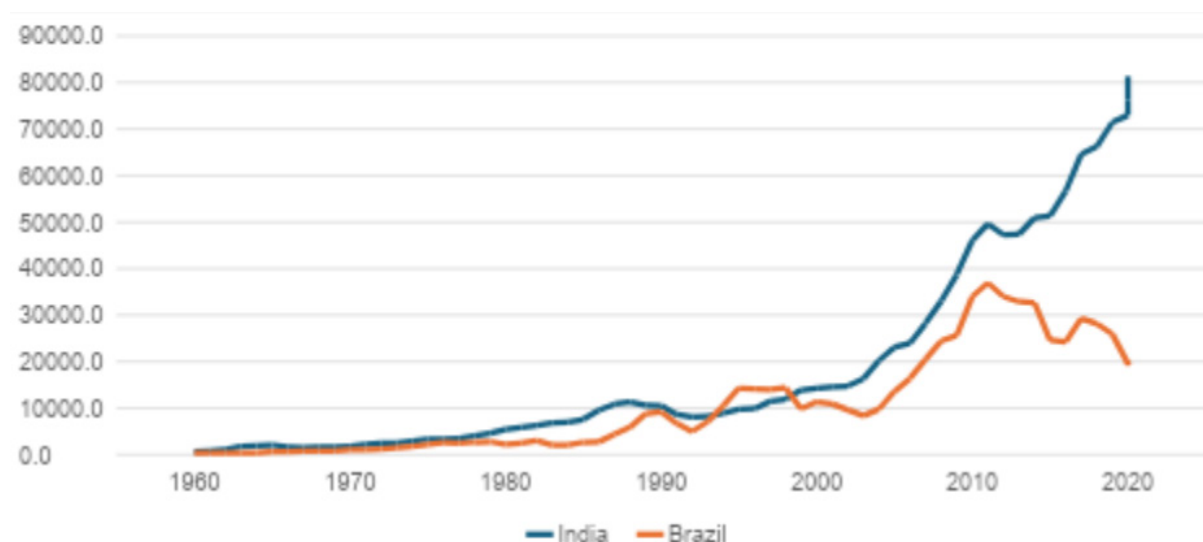
Graph 3- Military spending as a % of the GDP



Periods of high growth and investment when Brazil was the fastest growing country in the world led to rising military expenditures. But investment in large-scale projects must be solid, without interference from budget and

administrative fluctuations. These projects have to be a state priority, regardless of who wins the election. Space programs are long-term investments, and the downsizing of resources will certainly affect them.

Graph 4- Defense Spending (US\$ 2021 dollars)



While Brazil clearly has a volatile defense budget, which may represent periods of doubt in terms of the discussion about the importance of the defense industry, especially since the levels of external threat are low, India has a steady a growing project to expand its influence and be a regional power. Space, space defense, shipbuilding and cyber technology are India's strengths. However, Table 1 demonstrates that

it needs R&D and development in a number of other technologies. The country already has the fourth highest military expenditure figure in the world and, facing Pakistan and China as possible enemies is the main motivator behind India's space program. However, some problems in the country's industrial base still remain for India.

Table 1- Procurement (National and International) in India

<i>Year</i>	<i>Domestic source (current \$ billion)</i>	<i>Import (current \$ billion)</i>	<i>Total (current \$ billion)</i>	<i>Share of domestic source (%)</i>	<i>Share of imports (%)</i>
2015–16	6.0	3.5	9.5	63	37
2016–17	6.2	4.1	10.3	61	39
2017–18	6.8	4.5	11.3	60	40

Source: Behera, 2019

India is highly dependent on arms imports which, from the point of view adopted here, is problematic considering its potential threat scenarios. To produce major components of all forces domestically, and innovate or emulate, however, would be a massive endeavor, one it

seems that India's DRDO is already undertaking. It is interesting that in table 2, space industry requirements are considered, whereas that is not always the case with Brazilian investment in technologies.

Table 2- DRDO's Developed Systems (2017)

<i>Systems</i>	<i>Inducted* (current \$ billion)</i>	<i>Under induction # (current \$ billion)</i>
Missile Systems	3.6	11.2
Electronic and Radar Systems	2.0	3.2
Advanced Materials and Composites	0.7	0.3
Armament Systems	1.3	3.0
Aeronautical Systems	0.2	12.1
Combat Vehicles & Engineering Systems	0.8	1.8
Life Science Systems	0.1	0.0
Naval Systems	0.2	0.6
Micro Electronics Devices and Computational Systems	0.04	0.0
Total	8.9	32.2
Grand Total	41.1	

Source: Behera, 2019, p. 519

Table 2 shows that the top technologies for Indian investment are space-linked: Missiles, Radar Systems, and so on. India has chosen to specialize in some strategic areas. That seems to be their plan. Brazil has a relative success in the aerospace sector with Embraer and the São José dos Campos Cluster, although it is more civilian oriented.

Although the data collected is more general, highlighting investments and defense expenditures, for example, I argue here that they have a direct effect on the country's space programs, which are conducted by the Air Force with most of the investments by the public sector. Furthermore, there is a problem with data availability, especially when regarding past programs. This poses a limitation to this study, regarding both countries.

Concluding Remarks

Even if Brazil has an ambition of becoming a regional power *per se*, or a global player, fluctuations in budgets and priorities cannot happen in this way. Brazil's area of possible potential influence is large and has to count on building capabilities, because even if you are at peace, you prepare for war, and even if you don't want to develop new capabilities, it is a good reminder that they are relative and not absolute.

In this paper I have conducted a comparative analysis between the space programs of India and Brazil. Brazil has made some advances, although India is far ahead. Some of the explanations reside in steady investment and budget, alongside maintaining a strategy. Additional factors are the external threat to India by China and Pakistan and the immense volatility of Brazil's space program, both budgetary

and administrative. Brazil's pursuit of a development program, emulating some aspects of India, would not be a bad idea. Nowadays there are startups and private companies operating in space, although the State remains the main actor. Partnerships should be sought cautiously, but not disregarded.

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Análise da cooperação bilateral histórica para o desenvolvimento entre a China e a Guiné-Bissau: infraestruturas e a economia

Analysis of historical bilateral cooperation for development between china and guinea-bissau: infrastructures and the economy

Análisis de la cooperación bilateral histórica para el desarrollo entre china y guinea-bissau: infraestructuras y economía

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Resumo

O artigo faz análise da política externa chinesa de cooperação para o desenvolvimento com a Guiné-Bissau. É importante frisar que o contacto dos chineses com a Guiné-Bissau começou desde o período colonial e pós-colonial com o Estado chinês. Após a independência, a cooperação entre os dois países foi oficializada em 1974 em várias áreas, sobretudo de infraestrutura e economia. O artigo tem como objetivo analisar a política externa chinesa de cooperação para o desenvolvimento com a Guiné-Bissau nas áreas de infraestruturas e a economia. No processo metodológico, realizamos a revisão bibliográfica e documental. Esses acordos bilaterais contribuíram no crescimento econômico do país. Palavras-chave: África. Guiné-Bissau. China. Cooperação. Desenvolvimento.

Abstract

The article analyzes Chinese foreign policy on development cooperation with Guinea-Bissau. It is important to emphasize that Chinese contact with Guinea-Bissau began in the colonial and post-colonial period with the Chinese State. After independence, cooperation between the two countries was made official in 1974 in several areas, especially infrastructure and the economy. The article aims to analyze the Chinese foreign policy of development cooperation with Guinea-Bissau in the areas of infrastructure and the economy. In the methodological process, we carried out a bibliographic and documentary review. These bilateral agreements contributed to the country's economic growth.

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Keywords: *Africa. Guinea Bissau. China. Cooperation. Development*

Resumen

El artículo analiza la política exterior china en materia de cooperación al desarrollo con Guinea-Bissau. Es importante destacar que el contacto chino con Guinea-Bissau se inició en el período colonial y poscolonial con el Estado chino. Después de la independencia, la cooperación entre los dos países se oficializó en 1974 en varias áreas, especialmente en infraestructura y economía. El artículo tiene como objetivo analizar la política exterior china de cooperación al desarrollo con Guinea-Bissau en los ámbitos de infraestructura y economía. En el proceso metodológico se realizó una revisión bibliográfica y documental. Estos acuerdos bilaterales contribuyeron al crecimiento económico del país.

Palabras clave: *África. Guinea Bissau. China. Cooperación. Desarrollo.*

Introdução

Em África, a cooperação com a República Popular da China iniciou desde os anos de 1950 e 1960, sendo este período considerado de lutas pelas independências africanas e Pequim apoiava na resistência (M'BUNDE, 2015; FERREIRA, 2010). Portanto, apesar destes Estados ainda não eram soberanos, porém, mesmo assim, esta relação começou com os apoios no âmbito militar e bélico para vários movimentos independentistas que lutavam contra a dominação imperialista ocidental nos seus países. Assim como ajudou na formação dos militantes e guerrilheiros do Partido Africano da Independência da Guiné e Cabo Verde (PAIGC), para a luta armada na Guiné-Bissau, a partir de 1960 e 1962 (SEMEDO, 2009).

As relações de cooperação bilateral entre a China e a Guiné-Bissau iniciaram fundamentalmente através de um tratado assinado nos anos de 1960. Seguidamente continuaram a partir de 1974, após o ano da proclamação da independência da Guiné-Bissau em 1973, do regime colonial português (MANGO, 2023; INFANDE, 2021). Nos anos 1990, 1998 e 1999, esta relação diplomática da China no âmbito Sul-Sul com este país africano foi suspensa e apenas foi retomada depois focada

na construção das infraestruturas, formação de recursos humanos etc.

Na conferência de Bandung em 1955, que posteriormente deu a criação da ideia do conflito entre Norte-Sul. Durante este encontro, participaram 15 Estados asiáticos e apenas 6 Estados africanos tendo em conta a demora do processo da descolonização que a maioria dos países africanos se encontravam naquele período das lutas pelas independências. Durante esta conferência, pode-se perceber os princípios que norteiam a cooperação chinesa com a África:

Nessas declarações, o primeiro-ministro Xu Enlai enumera o respeito mútuo pela soberania e integridade territorial, a não agressão mútua, a não interferência nos assuntos internos de cada um dos Estados, a igualdade, o benefício mútuo e a coexistência pacífica como os eixos para o relacionamento internacional da China. Até hoje, a China mantém estes pressupostos que foram essenciais para, num contexto de pós-Guerra Fria, desafiar o unilateralismo, liderado pelos Estados Unidos em África. (COSTA, 2020, p. 43).

A China nas suas relações modernas não é percebido o fardo da colonização como é vivenciado nas outras potências vizinhas como no caso da Índia. Mas utiliza outras estratégias de exploração. A China escolheu ficar ao lado dos países que sofreram a imposição colonial do Ocidente. Embora politicamente o país

decidiu ficar do lado Sul, entretanto sobre a sua herança intelectual, em nenhum momento a China criou uma resistência ou um confronto contra a ordem internacional definida, mas se vê um isolamento dos intelectuais do país, contudo, ultimamente abriu-se ao mundo, a ciência política e social que é produzida no país adaptou-se nos modelos internacionais (idem).

Nesta lógica, este artigo tem como objetivo, analisar a política externa chinesa de cooperação bilateral para o desenvolvimento com a Guiné-Bissau nas áreas de infraestruturas e economia. A metodologia de pesquisa adotada para a elaboração deste artigo, foi assentada no método qualitativo de natureza bibliográfica. No decorrer da realização deste estudo, o levantamento foi efetuado através da revisão bibliográfica e documental.

Entretanto, no nosso entendimento, foca-se mais em análises metodológicas em que o assunto mais indispensável é a investigação detalhada de uma matéria escolhida para a produção científica de um certo estudo e atingir um objetivo proposto (DEMO, 1995).

Desta forma, são estas 4 etapas escolhidas para elaboração do artigo: coletar, mensurar, análise de dados e a redação.

Na primeira etapa, foi definida qual era o propósito da coleta de dados que é fazer a recolha de informações mais pertinentes do assunto da pesquisa; em que os principais textos serão pesquisados, sobretudo os que tratam especificamente da relação de cooperação bilateral histórica entre a China e a Guiné-Bissau. Por um lado, foi procedida a análise mais cuidadosa de dados coletados com o intuito de ter as informações mais precisas. Nesta mesma parte inicial, em última análise, estudamos a melhor forma de separar essas informações e

inseri-las nas suas respectivas seções que compõem o artigo.

Na segunda etapa, foi necessário fazer a mensuração de dados levantados com rigor científico e levar em conta em que parte do trabalho cada ideia do autor pode ser mais útil. Na terceira etapa, análise de dados, fizemos um levantamento bibliográfico e documental através da observação e leitura desses textos que vão ser citados. Na quarta etapa, a redação, é um processo seguido de descrição das informações mais importantes que foram obtidas através da leitura cuidadosa das bibliografias consultadas.

Em relação a sua estrutura, este artigo está dividido em quatro seções principais sem contar com a introdução e considerações finais.

Na 1ª seção “A Política Externa, Cooperação, Desenvolvimento, Cooperação Internacional para o Desenvolvimento e Cooperação Sul-Sul”, foi definido e debatido esses diferentes conceitos, onde apresentamos a relevância que estes têm nas relações internacionais.

Na 2ª seção, “Relações históricas de cooperação bilateral entre a China e a Guiné-Bissau” fala-se sobre a cooperação entre a China e a Guiné-Bissau antes e depois da independência, realçando a continuidade desta relação e o seu impacto socioeconômico na Guiné-Bissau.

Na 3ª seção, trata-se da “A situação atual da cooperação Sino-Guineense e os seus proventos”, demonstrando como as relações atuais entre os dois países estão e quais são os benefícios desta cooperação para a Guiné-Bissau nas áreas de infraestruturas e a economia.

Nesta 4ª seção os “Acordos de pesca na cooperação Sino-Guineense como plano de alcançar o crescimento econômico da Guiné-Bissau”, foi discutido os diferentes acordos de pesca assinados entre dois países.

1. A Política Externa, Cooperação, Desenvolvimento, Cooperação Internacional para o Desenvolvimento e Cooperação Sul-Sul

Para Sousa (2018), política externa é a ação particular do Estado na promoção de interesses nacionais e assim como proteger-se de certas ameaças externas que poderão pôr em causa a sua estabilidade interna.

No nosso entendimento, qualquer Estado, também, procura ter influências e poder sobre outros países na conjuntura das Relações Internacionais através da sua posição estratégica e levar mais em consideração a promoção dos seus interesses nacionais, sua imagem em busca do desenvolvimento e aceitação dos atores da comunidade internacional.

A política externa a sua diferença com as outras políticas é que na arena internacional o Estado busca sempre agir conforme a conduta e atuação dos outros atores nas relações internacionais. No decorrer deste processo, geralmente, a intenção é atuar e saber posicionar para preservar o seu próprio interesse se o ambiente permitir e caso contrário é obrigado a mudar deste espaço para não se sentir desfavorecido ou perdido neste jogo de interesse político e económico na geopolítica internacional (RODRIGUES, 2004).

“A cooperação significa envolver as populações na definição, planificação e criação do seu próprio futuro, capacitando as pessoas e comunidades para intervirem e liderarem o seu próprio processo de desenvolvimento.” (DICIONÁRIO DO DESENVOLVIMENTO, 2019, p. 17)

No entendimento de Amaro (2003), o Desenvolvimento é um dos conceitos mais re-

levantes e ao mesmo tempo polêmicos no âmbito das ciências sociais, como um estimulador de desejos, transformações socioeconômicas e pessoais.

Além de tudo, serviu para classificação e caracterização do desenvolvimento humano, social e bem-estar da população de cada país no mundo. Também é conhecido como um conceito que possui muitas versões e isso tornou-o mais complexo e não linear, sendo que é pensado e aplicado por pessoas em realidades diferentes e com definições opostas. Por isso, percebemos que não é universal, porque cada país entende e define o desenvolvimento conforme a sua visão de mundo baseado na história da formação da sua sociedade e do seu povo.

A Cooperação Internacional para o Desenvolvimento (CID), assegura para os países menos avançados o apoio para alcançarem os seus objetivos definidos e superarem os obstáculos que os impedem de serem os países desenvolvidos assim como os outros (SANGREMAN, 2009, p. 8).

Perante este processo, da mesma forma, a CID reconhece e prioriza o crescimento económico equilibrado dos países menos influentes e sem poder de decisão na geopolítica e arena internacional. Recomenda-se que os estados que carecem de poder financeiro devem ser apoiados pelos países mais fortes economicamente a superarem as barreiras que impedem a mudança estrutural e alcançarem o desenvolvimento almejado. Aliás, proporcionando que os países em vias de desenvolvimento não sejam endividados e que os bancos ocidentais não aplicassem os juros.

Enquanto que a Cooperação Sul-Sul é uma nova forma de colaboração entre os países do Sul Global e é totalmente diferente com a antiga cooperação Norte-Sul. Em outra pers-

pectiva é uma ação política de apoio econômico e social com a dinâmica baseada na troca mútua e solidariedade entre os países em vias de desenvolvimento e subdesenvolvidos com a intenção de criar um mundo mais justo e fortalecer as relações entre povos (CRONOLOGIA E HISTÓRIA DA COOPERAÇÃO SUL-SUL, 2014).

Por um lado, na relação de cooperação entre os países do Sul global continua a existir a hierarquia entre os países mais fortes em vários setores e aqueles com as economias menos desenvolvidas que necessitam muito dos apoios oriundos desta cooperação com os países em que há um sentimento de solidariedade entre povos e que lutam conjuntamente contra a pobreza, desigualdades sociais, impunidade e o retrocesso das suas sociedades e instituições.

A Cooperação Sul-Sul é um sistema de cooperação complementar e diferente da tradicional Norte-Sul em que a maioria dos países em desenvolvimento continuam dependentes dos países desenvolvidos. Mas é indispensável realçar que surgiu só como uma alternativa para tornar as relações mais solidárias e horizontais em que os países envolvidos sairão todos beneficiados através da relação de reciprocidade e não em “doadores e recipiendários” (DA GRACIA RIZZO, 2021).

Contudo, na nossa perspectiva de análise, os países em desenvolvimento com mais poderio militar, económico e político do Sul global continuam a ter mais influências e poder de decisão no cenário das Relações Internacionais, principalmente no contexto da Cooperação Sul-Sul com os países menos avançados que dependem muito do amparo externo através da cooperação bilateral e multilateral.

2. Relações históricas de cooperação bilateral entre a China e a Guiné-Bissau

O primeiro contacto de dois chineses nomeadamente Kat Chan e Lai San Lek Si com a antiga Guiné Portuguesa, foi em 1902, no período colonial, mas este não tem relevância governamental, contudo de natureza particular na província ultramarina que estava sob domínio de Portugal, conhecida atualmente como a Guiné-Bissau (HAVIK & ESTÁCIO, 2011).

A cooperação entre a China e a Guiné-Bissau faz parte do acordo bilateral oficializado em 15 de março de 1974, depois da declaração da independência do país pelo PAIGC. A partir deste período, os acordos assinados são baseados nas relações comerciais e assim abrangem o financiamento da construção das infraestruturas governamentais, pontes, estradas, portos etc. Foi nestes tratados entre Pequim e Bissau que foram construídos o Estádio Nacional de Futebol 24 de Setembro, Hospital Militar de Bissau e em Canchungo, norte do país, entre outros (BISSINDÉ, 2021; M'BUNDE, 2018). Além disto, nesta relação de cooperação bilateral entre os dois países é entendida que:

Uma das estratégias utilizadas pela China para ter aceitação no contexto da cooperação bilateral com a Guiné-Bissau em diversas áreas como por exemplo na agricultura, infraestruturas, pesca, educação, saúde é o motivo de não interferência nos assuntos internos do país (CORREIA, 2022, P. 276).

No período da colonização portuguesa, tem sido observado a presença de escravizados provenientes do território hoje conhecido como a Guiné-Bissau no continente asiático, particularmente em Macau, que da mesma forma, era dominada pelo regime colonial português em Ásia, onde se instalaram muitos por-

tugueses e euroasiáticos entre 1553 e 1557 (DE SOUSA, 2013).

Um dos princípios da política externa chinesa nessa cooperação com o país é não interferir nos problemas internos e assim respeitar a soberania e integridade territorial. O interesse da China na cooperação com a Guiné-Bissau está mais voltado aos pescados e a exploração dos recursos naturais guineenses que ainda não foram descobertos e explorados (Cassamá, 2023).

Estas são os princípios orientam a política chinesa em outros países da África, respeitar os parceiros e suas soberanias nacionais com isso permitiu a China conquistar a confiança dos diferentes líderes africanos e em especial os da Guiné-Bissau em aceitar cooperar com o gigante asiático desde o período colonial e pós-colonial. Apesar de existir movimentos civis que reprovam a forma da atuação da China no continente e como na Guiné-Bissau por más condições de trabalho, desrespeito às leis de proteção ambiental e o envio dos trabalhadores chineses para as obras sem permitir o emprego aos cidadãos nacionais (INFANDE, 2020)

Na percepção do Diretor-Geral do Departamento de Assuntos Africanos do Ministério das Relações Exteriores da China, WU PENG (2024), a cooperação bilateral entre os dois países é de várias décadas e tem produzido muitos efeitos positivos para essas duas nações sobretudo no âmbito econômico, infraestruturas e trocas comerciais.

Na Guiné-Bissau, as áreas com o investimento chinês são as infraestruturas, economia, agricultura, saúde e educação. Mas salienta-se que, nesta relação, o investimento chinês têm mais impactos nas áreas de infraestruturas e comércio. E as autoridades de Pequim têm empenhado muito em colaboração com o Estado

guineense para reforçarem a cooperação bilateral (MINCHUAN, 2023).

Na nossa concepção, a ajuda que a Guiné-Bissau tem recebido da China deveria servir para reabilitação e construções das pequenas indústrias locais, apoio aos agricultores e demais sectores sociais relevantes para o crescimento da economia. Por isto que, não é para fortalecer os governantes no poder sem projeto político apropriado para o crescimento econômico. Esta ajuda em vez de ser um benefício ao país, consequentemente, aumenta a corrupção entre os governantes e os outros servidores públicos que disputam este bem comum “oferecido” para o povo para o interesse particular. Portanto, qualquer ajuda tem o seu preço a pagar pelo país.

Não é abusivo então considerar que o objetivo da ajuda é de “corromper” as classes dirigentes. Além das pontuações financeiras (bem conhecidas, e pelas quais se faz crer que os doadores os fazem por nada!), a ajuda torna-se “indispensável” (porque elas se transformaram numa fonte importante de financiamento dentro dos orçamentos) incluída dentro desta função política. É importante que esta ajuda não seja reservada exclusivamente e integralmente aos homens em posto de comando, ao “governo”. É necessário que ela se interesse igualmente as “oposições” capazes de os suceder. O papel da sociedade civil e de algumas ONGS se encontra aqui (AMIN, 2010: 2).

A apropriação do apoio oriundo dessas relações bilaterais tem acontecido nos últimos 5 anos na Guiné-Bissau, em que os dirigentes da nação aproveitam-se destas ajudas externas assentadas na cooperação para a compra da consciência política dos adversários, apoiadores e as vezes utilizadas para campanhas eleitorais ou em outros serviços não-estatais, mas sim, para assuntos particulares dos membros do governo e não os serviços mais essenciais.

A ajuda em questão, para ser politicamente eficaz, deve igualmente contribuir para a manutenção da inserção dos camponeses neste sistema global, esta inserção alimenta outras fontes de verba do estado. A ajuda deve igualmente se interessar pelo progresso da “modernização” as culturas de exportação. O caso do niger ilustra a perfeição da articulação dos recursos minerais estratégicos (o urânio) \ ajuda “indispensável” \ manutenção do países neste estatuto de estado cliente. (2) (AMIN, 2010, p. 2)

A maioria dos acordos assinados acabam por circular apenas nas mãos dos que possuem poder e não beneficia os que mais necessitam, mas os que estão no comando e não o país. Quando esta ajuda é gerida de forma racional e com compromisso de apoios a classe trabalhadora que necessita de meios e materiais para produzir contribui diretamente para a alavancar a economia.

3. A situação atual da cooperação Sino-Guineense e os seus proveitos

Entre 2021 e 2024, a cooperação Sino-Guineense no nosso entendimento, tem progredido muito nesses últimos três anos, apesar da Guiné-Bissau não ter conseguido aproveitar e expandir os investimentos chineses para a construção dos portos e as indústrias nacionais para a transformação dos produtos locais e reduzir o alto desemprego no país. Contudo, um dos maiores desafios atuais do Estado guineense é superar o déficit das infraestruturas, diversificar a produção agrícola para o crescimento econômico, avançar na industrialização e fazer as reformas estruturais.

O Embaixador da China Guo Ce na Guiné-Bissau, durante a sua entrevista considerava que:

Ao longo dos três anos, apesar da conjuntura internacional, as relações Sino-Guineense têm-se melhorado significativamente, graças aos esforços de ambas as partes, à confiança política mútua. Tem aumentado progressivamente e a cooperação praticada em diversas áreas é frutífera. Nos últimos três anos, a China também prestou alguns apoios para o desenvolvimento da Guiné-Bissau. Concluímos com sucesso o projeto de reflexão da conferência internacional do Ministério dos Negócios Estrangeiros, a construção do porto de Alto Bandim, em Bissau, e a reabilitação da sede da Assembleia Nacional Popular (ANP)(...) (GUO CE, 2024, s/p.).

Nos acordos de pescas entre dois países e de exploração dos recursos energéticos no território nacional, tem surgido muitas críticas feitas pelos guineenses sobre a falta de recursos humanos e materiais que os funcionários deste setor enfrentam e que dificulta a supervisão séria e rígida em combate a qualquer prática ilegal chinesa durante a pesca. Contudo, essa parceria entre os dois países contribuiu para melhorar as infraestruturas públicas devastadas no decorrer da guerra civil de 7 de Junho de 1998-1999 (PEREIRA, 2020).

4. Acordos de pesca na cooperação Sino-Guineense como plano de alcançar o crescimento econômico da Guiné-Bissau

Nesta seção, vai ser analisada os principais acordos de pesca entre a China e a Guiné-Bissau para o crescimento da economia e a criação do emprego.

O acordo de pesca surgiu através de um tratado assinado entre a República Popular da China e o Estado da Guiné-Bissau em que os dois países decidiram estabelecer relação de

cooperação no âmbito das pescas assinado em Beijing a 28 de Agosto de 1984. No Artigo 2 do “Acordo entre o Governo da República Popular da China e o Governo da República da Guiné-Bissau sobre a cooperação no domínio das pescas”, refere-se neste tratado de que:

As duas Partes deverão celebrar anualmente contratos para fixar as condições de concessão das licenças. As licenças anuais deverão ser concedidas no âmbito dum regime preferencial, não devendo este ser inferior ao concedido aos outros países mais favorecidos (ACORDO ENTRE O GOVERNO DA REPÚBLICA POPULAR DA CHINA E O GOVERNO DA REPÚBLICA DA GUINÉ-BISSAU SOBRE A COOPERAÇÃO NO DOMÍNIO DAS PESCAS, 1984, p. 134).

Em relação aos investimentos no país, a China compromete-se em apoiar por meio dos equipamentos de trabalho, financiar e trazer os técnicos chineses para auxiliar o Estado a criar pequenos navios motorizados para a realização da pesca.

A respeito disto Kébé et al. (1993, p. 7) alegam que:

Os principais acordos de pesca em vigor em 1992 concernam a Comunidade Económica Europeia (Itália, Grécia, Portugal, Espanha), a ex-URSS, a República Popular da China, os países africanos (Senegal, Gâmbia, Serra Leoa) e Chipre (quadro 5). Estão actualmente em preparação negociações com a ex-URSS e em curso com a CEE para 1993.

Entretanto, como se demonstra esses autores, em 1992, entre 165 barcos estrangeiros de países diferentes que pescavam nas águas que estão protegidas pela legislação guineense, 20 são da República Popular da China. Esta relação de cooperação do Estado da Guiné-Bissau com a China tem contribuído significativamente para o crescimento da economia guineense.

O outro protocolo de pesca foi assinado pelo Estado da Guiné-Bissau e a empresa “China National Fisheries Corporation em 1 de julho de 2010, tem a duração de quatro (4) anos de validade. No entanto, no seu Artigo 4º vê-se que são realizadas as reuniões anuais para avaliar se o acordo está a ser cumprido legalmente na sua totalidade pela empresa chinesa.

(PROTOCOLO DE ACORDO DE PESCA, 2010).

5. Considerações finais

Entre 1950 e 1960 a época em que os países africanos se encontravam na luta pelas independências da dominação colonial dos países ocidentais, mesmo não sendo estados soberanos, a República Popular da China, tem estabelecido as relações de cooperação com estas nações africanas. Particularmente, a Guiné-Bissau é um dos países que beneficiaram deste apoio para a formação e fornecimento de armas para os guerrilheiros do PAIGC para lutar contra o regime colonial português.

As relações diplomáticas entre a China e a Guiné-Bissau são assentadas na conjuntura da Cooperação Sul-Sul, uma nova política no campo das Relações Internacionais adotada pelos países do Sul global, diferente da cooperação Norte-Sul. Neste processo, os países emergentes ou em desenvolvimento mais fortes economicamente, militarmente, politicamente e estrategicamente no cenário na cooperação internacional e no Sul-Sul estabelecem as relações de cooperação com os países menos avançados como o caso da Guiné-Bissau cooperando com a China que é uma das maiores potências mundiais da atualidade.

Esta colaboração é uma parte da política externa de dois países baseada em certa medi-

da na ajuda mútua e solidariedade entre dois povos e trocas de experiências de governação e promoção de diálogo em busca de estabilidade política e governativa que visa atingir o desenvolvimento e melhorar as condições de vida da população afetada pela carência de bens e serviços mais básicos.

Após vários períodos de conflito armado contra a colonização portuguesa, o país alcançou a sua proclamação de independência unilateral em 24 de setembro de 1973, mas só depois de um ano, em 1974, que a Guiné-Bissau conseguiu oficializar a sua cooperação bilateral com a China especificamente nas áreas de infraestruturas e economia.

Os investimentos da China na Guiné-Bissau são mais verificados nas construções de infraestruturas como escolas, hospitais e edifícios governamentais que o país tem sentido muita falta como a construção e a reabilitação do Estádio Nacional 24 de setembro e Assembleia Nacional Popular (ANP).

Os acordos de pesca entre a China e o Estado da Guiné-Bissau surgiram na medida em que o país precisou-se de aumentar laços de cooperação e diversificação da sua economia e não depender apenas de desses acordos de pesca com a China. Especificamente desde 2014 a 2024, na relação Sino-Guineense o Estado da Guiné-Bissau tem feito esforços de diversificar o investimento chinês em vários setores e a China demonstrou o interesse em apoiar o país e investir nas infraestruturas e a compra dos produtos agrícolas.

No nosso entendimento, uma das áreas mais prioritárias do governo guineense no decorrer da sua cooperação bilateral com a China, são as infraestruturas, economia, saúde e agricultura, educação e em troca a China ganha com a exploração de recursos naturais do país

ou através de outros tipos de apoios que poderá precisar da parte do Estado da Guiné-Bissau no âmbito da geopolítica internacional. Nesta análise, percebe-se que todo o financiamento do Estado chinês para a transformação estrutural e melhorar a vida do povo da Guiné-Bissau, a China beneficiará de forma direta ou indiretamente ao longo do tempo, já que nada é de graça quando se trata da cooperação entre os países de Sul-Sul e assim como Norte-Sul.

Entretanto, é importante ressaltar que, todo este apoio prestado a nação guineense, não será gratuita, porque na cooperação internacional todos os países doadores e financiadores como a China tem o principal interesse a obtenção de lucros através da exploração dos países economicamente frágeis e instáveis como a Guiné-Bissau, na qual estes apoios terão custos em dinheiro ou exploração dos recursos naturais.

Os acordos de pesca assinados entre o Governo da República Popular da China e o Governo da República da Guiné-Bissau baseiam-se na cooperação Sul-Sul entre esses dois países, em que ambos comprometem-se a cumprir todos os protocolos e normas presentes nesses tratados que regulamentam as atividades pesqueiras dos navios chineses nos mares da Guiné-Bissau.

Num dos pontos de acordo de pesca com a empresa China National Fisheries Corporation, esta compromete-se apelar a China a construir unidade industrial de conservação e tratamento de pescado no país e o fornecimento de 40 toneladas para o mercado nacional destinado ao consumo da população o que já é um grande passo dado pelas autoridades guineenses.

Portanto, acreditamos que as autoridades nacionais, poderiam aproveitar mais com este

acordo, onde deveria fazer parte a reabilitação do Porto de Pesca Alto Bandim, que tem apresentado a falta de manutenção e não limitar apenas em criação de polo de abastecimento do pescado oriundo da pesca artesanal como tem sido feito. É fundamental realçar que apesar de gerar empregos para mulheres e jovens, também criará novas oportunidades de negócios para o setor das pescas o que contribuirá para o crescimento econômico, melhoria das suas infraestruturas, transformação e exportação do pescado.

Consequentemente, as instabilidades políticas recorrentes, têm limitado e/ou impedido a implementação de outros projetos e investimentos estrangeiro neste setor na Guiné-Bissau.

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Five myths about cryptoterrorism: understanding trends and modus operandi of terrorism financing through cryptoassets

Cinco mitos sobre criptoterrorismo: entendendo tendências e o modus operandi do financiamento do terrorismo através de criptoativos

Cinco mitos sobre criptoterrorismo: entendiendo tendencias y modus operandi del financiamiento del terrorismo a través de criptoactivos

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ABSTRACT

This article debunks five common myths about crypto terrorism, examining how terrorists exploit digital assets. While the terrorist use of cryptocurrencies is limited and involves small amounts, it extends beyond Bitcoin and leaves detectable traces. To address this evolving threat effectively the misuse, not the assets, should be criminalized.

Keywords: Cryptocurrency; Crypto terrorism; Terrorism financing

RESUMO

Este artigo desmistifica cinco mitos comuns sobre o cripto terrorismo, examinando como os terroristas exploram os ativos digitais. Embora o uso de criptomoedas por terroristas seja limitado e envolva pequenas quantias, ele vai além do Bitcoin e deixa rastros detectáveis. Para enfrentar essa ameaça em evolução de forma eficaz, deve-se criminalizar o uso indevido, não os ativos em si.

Palavras-Chave: Criptomoeda; Cripto terrorismo; Financiamento do terrorismo

RESUMÉN

Este artículo desmiente cinco mitos comunes sobre el cripto terrorismo, examinando cómo los terroristas explotan los activos digitales. Aunque el uso de criptomonedas por parte de terroristas es limitado y abarca pequeñas cantidades, se extiende más allá de Bitcoin y deja rastros detectables. Para abordar esta amenaza en evolución de manera efectiva, se debe criminalizar el uso indebido, no los activos en sí.

Palabras clave: Criptomoneda; Cripto terrorismo; Financiamiento del terrorismo

Introduction

Cryptocurrencies are digital currencies, i.e. a medium of exchange (used to acquire goods or services) or a store of value, that use cryptography (coded information) and blockchain technology (a digital decentralized public ledger) to conduct transactions through a computer network. Unlike traditional currencies and assets, cryptocurrencies and other crypto assets operate in a decentralized manner and do not rely on central authorities such as banks or governments. As a consequence, they have been less subjected to control and regulations although this is quickly changing.

However, in an era in which digital currencies are transforming global finance, the complexities of terrorism financing that relies on crypto assets (crypto terrorism) presents unprecedented challenges. While cryptocurrencies remain a technical and somewhat distant concept for many, recent advancements in artificial intelligence-powered blockchain analysis have shed light on how terrorists exploit these digital assets. Despite this progress, widespread misunderstandings and myths still cloud public perception. By debunking these misconceptions, we can better understand the true trends and tactics of terrorism financing through cryptoassets. In this article, we explore five prevalent myths to gain a clearer understanding of how extremist groups utilize cryptocurrencies, how their strategies are evolving, and the implications for counterterrorism efforts.

Myth 1: The Majority of Terrorist Funding Comes from Cryptoassets

Reality: Limited Adoption Compared to Traditional Methods and Cryptoassets Play a Minor Role

Terrorists and extremist groups use a wide variety of methods to raise, move, and use funds that usually mix licit and illicit sources. These methods employ varying degrees of professionalism and complexity. Examples of terrorism financing from illicit sources include crimes such as online and offline fraud, kidnapping, extortion, tax evasion, contraband, theft, and the misuse of NGOs. Legal sources include donations, self-financing, and even the use of licit companies (LASMAR, 2019). The use of both legal and illegal sources as well as the simultaneous employment of different financing techniques is one of the defining characteristics of terrorism financing (FATF 2015). To avoid disruption, diversity is key. Terrorist groups make sure to employ several different mechanisms to increase their chances of passing unnoticed by the authorities and decrease the impact of any disruption to one or more of their financial activities.

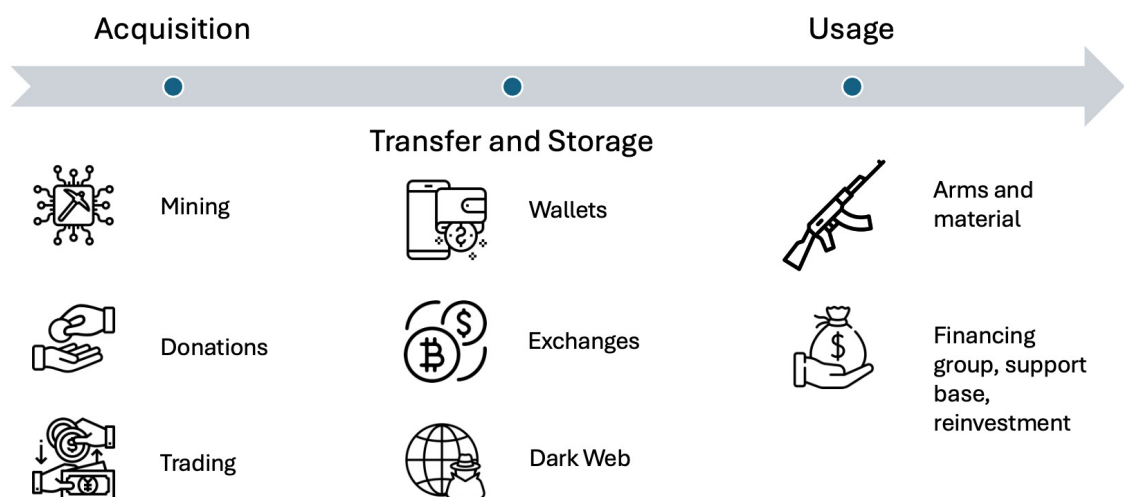
In this context, terrorist groups have been increasingly interested in using cryptoassets to raise, transfer, and use funds. For example, Da'esh (also known as the Islamic State) and Al-Qaida affiliates have been using cryptocurrency in Syrian areas under the control of Hay'at Tahrir al-Sham. We also know that Da'esh affiliates in Asia increasingly rely on cryptocurrencies (CTED, 2024). However, this is not a new phenomenon. The first evidence

of terrorist financing through cryptocurrencies was found in 2014 when American authorities found a Dark Web site called “Fund The Islamic State Anonymously”, which encouraged Da’esh sympathizers to donate Bitcoin (the first widely-used cryptocurrency) to the group. From 2015 onwards, Da’esh stepped up efforts to receive Bitcoin donations, after which other extremist groups started doing the same, as can be seen in Annex I (Timeline of High Profile TF Through Cryptoassets) below.

The timeline demonstrates that terrorist groups are looking into cryptoassets as another tool of terrorism financing. However, despite all the high-profile cases in the media, these instances remain relatively rare and of low volume, especially when compared to the financing of terrorism through traditional methods. To date, most terrorist financing continues to rely on traditional offline methods, both in terms of sources and means of transfer (Chainalysis, 2024). In fact, the use of cryptoassets

for financing terrorism remains limited, even when focusing solely on the illicit cryptoasset ecosystem. Within the cryptoasset ecosystem, only a small portion is misused for criminal activities. The company Chainalysis estimates that the share of all crypto transaction volumes associated with illicit activity in 2023 remained at 0,34% of the total on-chain transaction volume (Chainalysis, 2024, p. 6). Of these illicit uses, only a small part is used for terrorism financing. That is not to say, of course, that the threat should be ignored. Any financing of terrorism, no matter how small, has serious social, political and humanitarian consequences and should be prevented and countered. Nevertheless, it is important to understand that cryptoassets can be abused in the same way that the traditional financial system can be exploited for nefarious activities. Thus, it is important to criminalize the misuse of cryptoassets and not the cryptoassets themselves.

Terrorist methods of acquiring, transferring, storing and using cryptocurrency



Myth 2: Terrorist Groups move millions of dollars in cryptocurrencies

Reality: Terrorist-related cryptocurrencies transactions amounts remain relatively low

Information about underworld and criminal activities is never precise. Owing to the nature of illicit activities, reliable information is scarce and rarely available. Thus, it is difficult to obtain accurate estimates of the illicit flow volume. Most studies that quantify illicit flows rely on seizure data to build their estimates. However, while this information can give us some idea of the magnitude of the problem, often seizure data is unreliably recorded at the source. Moreover, a focus on seizures ignores illicit flows that have not been intercepted by the authorities.

The same applies when estimating the criminal use of cryptoassets. Recent developments in artificial intelligence (AI) and blockchain analysis techniques have advanced significantly, providing us with more precise information (more on this below) about these transactions. However, all the information we have on how terrorists operate blockchain-hosted assets depends on first identifying which crypto address belongs to a real-life terrorist entity. Hence, the analysis is made in retrospect and can change as more attributions (i.e., the linking of a virtual address with a physical person or entity) are made. Thus, for example, the existing estimates for terrorist use of cryptoassets in 2022 can change in 2032 if new terrorist-linked addresses come to light in future investigations.

With that in mind, over the past few years

we have developed a much more comprehensive picture of how terrorists use cryptoassets. After the 07 October 2023 Hamas attacks in Israel, the media was inundated with news about how cryptoassets were used to finance terrorism. One report widely circulated in the news claiming that terror groups raised over \$130 million in cryptos in the past few years (Nocera; Livni, 2023). However, the blockchain analysis company that provided the data used in this study strongly contested this (Idem). According to the company, this figure represents the total amount circulated in and out of specific addresses that received or sent funds but not all of these funds were linked to known terrorist entities (Chainanalysis, 2023a). Therefore, this figure is not only a gross exaggeration but also serves to incorrectly criminalize all these addresses. It is important to understand that not all the money that goes in or out of a crypto address is necessarily related to terrorism. This is because crypto-terrorist assets move within the crypto ecosystem, which includes both legal and illegal transactions. Both legal and illegal transactions make use of what are legitimate virtual asset service providers (VASPs) such as centralized exchanges.¹ Consequently, not all the money that a legal exchange moves are necessarily linked to terrorism, even if a terrorist group uses it at some point. Imagine that a terrorist group uses a legitimate bank to make a money transfer, as in the case of the

1 According to the FATF, VASPs are “any natural or legal person [...] [that] conducts one or more of the following activities or operations for or on behalf of another natural or legal person: i. Exchange between virtual assets and fiat currencies (i.e. government issued currencies); ii. Exchange between one or more forms of virtual assets; iii. Transfer of virtual assets; and iv. Safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets; v. Participation in and provision of financial services related to an issuer’s offer and/or sale of a virtual asset.” (FATF, 2021, p.22).

9/11 bombers who transferred their remaining funds (26,000 USD) back to a al Qaeda facilitator in the UAE in the days before the attacks. This does not mean that all transactions made by or through that particular bank are linked to terrorism and/or terrorism financing (NCoTA, 2004, p.3).

To date, terrorist groups have been using cryptoassets for two different kinds of transactions: funding campaigns and running their organizational. Both these objectives often involve moving funds across international borders. This distinction is relevant as funding campaigns have so far been marked by very few individual contributions/donations which are generally of relatively small amounts. On the other hand, transfers for organizational maintenance tend to be characterized by larger transactional sums. In the timeline, it is interesting to note that before 2020 there are practically only transactions linked to funding campaigns. However, this changes in the post-2020 period and the timeline now shows transactions linked to both funding campaigns and organizational maintenance. It is not clear why this shift occurred. However, it is clear that after 2020 terrorist groups started making use of crypto assets for transborder transfers to avoid sanctions and monitoring. In this case, transactions were usually made by specialized financiers that moved money for more than one terrorist organization. Further, these transactions tended to involve higher amounts. In these cases, it is technically true that terrorist groups have moved millions of dollars through cryptos. Nevertheless, the numbers are still on the lower end (around 2 million USD) and represent not only a fraction of the total amount of terrorism financing when compared with traditional methods, but also a miniscule percentage of the

illegal crypto asset ecosystem, which itself represents a very small portion of the same.

Myth 3: The Majority of Terrorist Crypto-Funding comes from Bitcoin

Reality: Terrorists Know that not all Cryptocurrencies are Equally Vulnerable

Not all cryptocurrencies are created equal in terms of privacy and security, and terrorists are well aware of these differences. Different cryptocurrencies have been developed, with different needs and characteristics in mind. Below are a few examples of different cryptocurrencies:

Bitcoin: This was the first widely spread and most recognized cryptocurrency. Owing to its widespread use, it has relatively high liquidity.

Ethereum: This is the second-largest cryptocurrency. Its blockchain also functions as a platform for decentralized applications (dApps) and has the capacity to host smart contracts. dApps are programs that run on a decentralized network as opposed to a single computer or server. Consequently, they facilitate peer-to-peer transfers of funds which allows more privacy. Smart contracts are also built on the Ethereum blockchain and can be used as a mechanism to provide security for peer-to-peer transfers in the absence of an intermediary.

Stablecoins: cryptocurrencies pegged to other assets such as government issued (i.e., fiat) currencies, gold, or oil. Tether and USD Coins are examples of stablecoins. These coins offer the stability of traditional currencies whi-

le retaining the benefits of digital assets.

Smaller and Emerging Cryptocurrencies: These are lesser-known emerging digital assets. These cryptocurrencies may offer lower visibility and reduced scrutiny by authorities, making them attractive for illicit activities. For example, Avalanche (AVAX), Polkadot (DOT), and Ripple (XRP).

Meme coins: cryptocurrencies inspired by internet memes, characters or trends. Although they are often created as satires, some meme coins, such as Dogecoin (DOGE), Shiba Inu (SHIB), and Pepe (PEPE), have achieved significant value.

Privacy Coins: privacy-oriented cryptocurrencies such as Monero (XMR), Zcash (ZEC), and Dash (DASH). These coins use advanced cryptographic techniques to obfuscate transaction details, making it extremely difficult for authorities to trace the origins, destinations, and amounts involved in transactions.

It is common to hear the term Alt Coins. The term Alt Coins simply refers to any cryptocurrency that is not Bitcoin. It encompasses stablecoins, meme coins, privacy coins, and all other cryptocurrencies. It is also important to note that when one refers to crypto assets, the expression includes not only crypto currencies but also other digital assets. These other digital assets include crypto-related funds (investment funds related to cryptocurrency or blockchain) and crypto tokens. The expression 'token' is used to refer to a digital asset that represents ownership, a specific value, or a utility – like a free-meal coupon or a casino chip. Although cryptocurrencies are technically tokens, as they function as digital representations of a value designed to facilitate transaction, the expression 'token' is usually employed to designate a digital representation of an interest that is built

on an existing blockchain (i.e. is not intrinsic to that blockchain). This contrasts with cryptocurrencies which are intrinsic to their own blockchain. Thus, digital tokens act as a digital "key" to a service or ownership and can have different functions. For instance, a *utility token* provides access rights or enables the purchase of specific products or services; a *security token* proves ownership in real-world assets, and; a *non-fungible token* or NFT registers ownership over a non-fungible asset, that is, a unique digital items such as pictures, videos, or songs) (Sharma, 2024).

Understanding the differences and nuances between different cryptocurrencies is very important. On the one hand, this variety responds to different market demands; on the other hand, criminals and terrorists also exploit these distinctions according to their particular needs. Different types of criminals have different needs (Chainanalysis, 2024; TRM, 2023). White-collar criminals, for example, exploit cryptoassets for money laundering. For them, cryptoassets such as Bitcoins, Alt coins, and NFTs that are very volatile are attractive because their price variations can be used to justify gains or losses. Criminals involved in illicit commerce use cryptoassets to sell their products, but do not seek to accumulate cryptocurrency. Individuals involved in activities such as bribery, corruption, espionage, and even the financing of terrorism use the crypto ecosystem as a means to make illicit payments. These actors tend to want to preserve their gains and thus favor stablecoins. Rogue states and sanctioned entities use cryptocurrencies to move money across jurisdictions and evade sanctions. They also favor the use of stablecoins. Cybercriminals and cyber-enabled criminals who commit fraud and scams, thefts,

hacks, ransomware attacks, etc. still prefer to use Bitcoin. While Bitcoin accounted for 97% of the crypto-illicit volume in 2016, with the evolution of other currencies Bitcoin use plummeted to less than 3% of the crypto-illicit volume in 2022 (TRM, 2023, p. 4).

When discussing the financing of terrorism, it is important to understand that terrorist groups do not rely solely on Bitcoin. Although Bitcoin is the most well-known cryptocurrency, terrorist organizations employ a range of cryptoassets for various reasons, leveraging the unique features of different digital currencies to suit their needs. When extremist groups started exploiting cryptocurrencies in 2016, attempts to finance terrorism through cryptocurrencies were almost exclusively made using Bitcoin. However, as other digital currencies evolved, preferences changed. For instance, there is currently a clear preference for assets in the TRON blockchain. According to the TRM, in 2022, there was a 240% year-on-year increase in the use of Tether (a stablecoin), compared to a 78% rise in Bitcoin use (TRM, 2023, p.14). Tether accounted for 92% of all terrorism financing cases involving cryptocurrencies by 2022 (TRM, 2023, p.4). A few other interesting cases not involving Bitcoins include an extremist group in South Africa who tried to raise funds by creating their own cryptocurrency in 2021, and an NFT minted on an NFT trading website bearing the Da'esh emblem in 2022. Minting is the process whereby a unique digital asset is created so that it can be bought, sold and traded. The NFT was minted by a supporter, who also minted two other NFTs using Da'esh's emblems. While there was no proof that NFTs were part of a Da'esh financing campaign, they demonstrated the potential misuse of NFTs by terrorist

groups. (DoT, 2024, P.14).

Myth 4: Cryptoassets Are Untraceable and Impossible to Seize

Reality: Tracing and Seizure are Possible

There is a widespread myth that cryptocurrencies are anonymous. They are not. Cryptocurrencies are pseudonymous, rather than anonymous. This is an important distinction. Most cryptocurrency transactions are not directly linked to an individual's identity. However, as most cryptocurrencies blockchains work as public ledgers, they hold open information on all transactions that have ever taken place in that chain. Thus, by analyzing information on the blockchain, it is possible to link certain transactions to specific individuals or entities (a process called, attribution). In a sense, certain cryptocurrency operations are more traceable than fiat transactions.

Blockchain analysis makes it possible to identify the sources and destinations of funds, verify digital wallets (i.e. an app or online service that allows you store funds, make transactions and track payment histories), and cluster addresses that belong to the same individual or entity. By following transactions to an address controlled by a VASP or gatekeeper (i.e., those who connect the digital and real world) that has carried out due diligence and verified the identity of the owner/controller of a wallet address, it is possible to attribute those transactions to a specific individual. This is feasible even when the terrorist uses private wallets or de-centralized applications (i.e., autonomous

software programs that run on a blockchain using decentralized computing in peer-to-peer transactions). If an off-chain investigation or threat intelligence discovers a suspect's crypto address, for example, it becomes possible to draw connections between off-chain and on-chain data points, and trace all transactions related to the suspect. This is possible when, for instance, a known terrorist group posts a crypto address soliciting donations online.

Blockchain analysis techniques have significantly evolved over the past few years. When blockchain analysis first emerged in 2010, it involved organizing raw blockchain data to help retail investors look up their cryptocurrency transactions. These raw data include information such as the timestamp of the transaction, the sending and receiving addresses, and the amount of cryptocurrency transferred. However, the identities of those who own or have control of the addresses are not publicly accessible. But, after the Mt. Gox hack in 2014², blockchain analytics tools have entered the second generation. To overcome the limitation of knowing who owns or controls addresses, blockchain analysis has begun to combine the raw blockchain data with other databases. This information crossing allows blockchain analysis instruments to link on-chain activities to real-world entities. These databases include blacklists of sanctioned entities, criminal and terrorist addresses, and other information that allows law enforcement and financial institutions to detect known terrorists and trace the sources and destinations of funds within specific cryptoassets. This significantly advances

attribution capacity by linking addresses to real-world entities. With the advancement of artificial intelligence, the capacity to process vast amounts of data and find patterns has evolved significantly, and blockchain analysis has entered a third generation (TRM 2024). Thus, ownership analytics have evolved to map the composition of an entity's addresses (i.e. identify all addresses linked to the same owner or entity) and reveal nested relationships. It has also become possible to analyze cross-chain transactions and trace the source and destination of funds, even when an asset swaps across different blockchains. However, one of the biggest advances was the capability to proactively recognize transaction patterns that may indicate illicit activities such as money laundering, fraud, or even the financing of terrorism. Terrorist finance (and other crypto-related crimes) usually operates in patterns that can become signatures, and thus, a recognizable behavior even if you do not know to whom the address belongs (TRM 2024). A few examples of signatures are (TRM 2024):

Common traits:

Funds are moved through a sequence of transactions that share common traits, such as amount, timing, or structure, and thus, seem to be linked to the same entity.

Cross-chain swap:

A common technique among criminals and terrorists is the transfer of an asset from one blockchain to a different one to break their direct trails.

Peel Chain

Cryptocurrencies from a single address are fully dispersed in smaller amounts by successive transfers to other addresses.

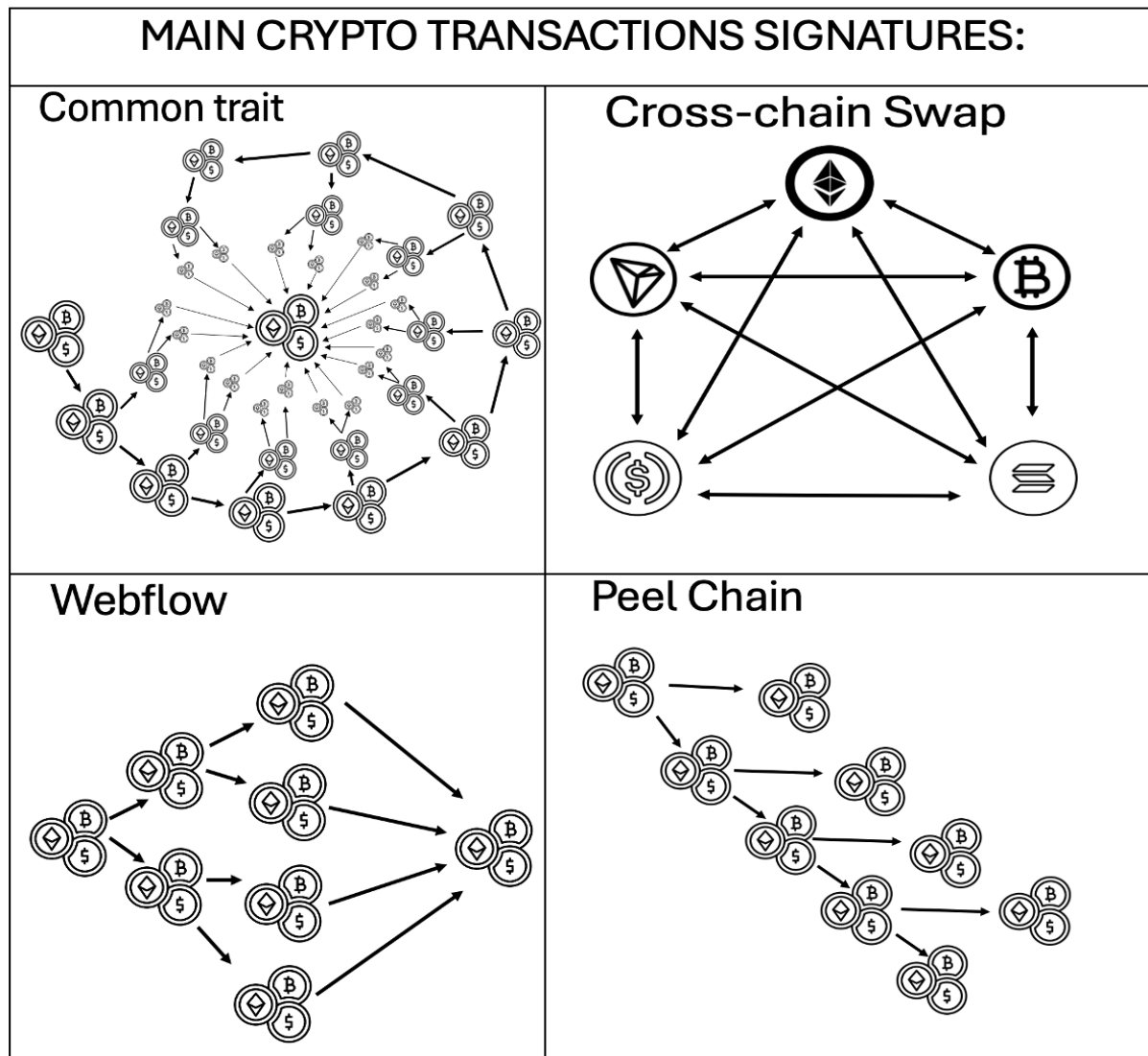
Webflow

Complex, web-like transactions that dis-

2 Mt. Gox was a Japanese exchange that handled over 70% of all Bitcoin transactions in 2014. In April that year, the exchanged was hacked and had about 850,000 Bitcoins stolen leading to its bankruptcy.

perse funds through many nonlinear addresses to then be collected again in another address. This pattern is also known in network analysis

as “one to many” and “many to one” transactions and are highly indicative of obfuscation attempts.



Source: The authors from various sources

Consequently, crypto transactions are highly traceable, representing a great opportunity for intelligence and law enforcement agencies. Terrorists and criminals are aware of this fact and employ other obfuscation techniques to hide their transactions. In addition to the techniques mentioned above, two other techniques deserve attention: privacy coins and mixers/tumblers.

Privacy coins are cryptocurrencies that are designed to enhance the privacy of users and transactions. Popular privacy coins include Monero (XMR), Z-cash (ZEC), DASH (DASH), 0x0.ai (0x0) and MimbleWimble (MWC). Although each of these currencies has different privacy features, with particular appeals to different users, Monero is a good example of how they operate. Monero uses

‘ring signatures’ that group senders’ addresses together, adopts methods to not publicly reveal the value of the transactions (known as zero knowledge proof), and generates ‘stealth addresses’ to receive funds and combine technology protocols to obscure IP addresses. Therefore, it is easy to understand why criminals are interested in private coins. Da’esh, for example, launched a Monero Campaign. The campaign titled “Jihad with Wealth” posted a call for Monero donations: “Oh believers! Shall, I guide you to an exchange that will save you from painful punishment? [...] Please donate with safe cryptocurrency Monero (XMR) for waging jihad with wealth and financing those who are waging the same with their lives.” (Daesh, s.d.).

However, as mentioned above, Tether remains the main cryptocurrency of choice for extremist groups. In fact, even among criminals, Monero and privacy coins are the cryptocurrencies of choice for only very specific criminals (TRM 2023). This is because privacy coins increasingly have a liquidity problem as many governments increase regulatory pressure and move to criminalize their use. For instance, privacy coins were banned in Japan and were delisted from several major exchanges. Delisting is relevant because exchanges are one of the key mechanisms to transform crypto assets into cash (off-ramping). Additionally, recent advances in blockchain analysis tools allow transactions to be traced, even when done with privacy cryptocurrencies.

Another common technique involves the use of mixers and tumblers. These services mix coins from several different transactions, join potentially identifiable assets with unidentifiable assets, and then pool them into a destination address. These services are not necessarily

illegal, but in many cases they are used by criminals to obfuscate the origins of the funds. Mixers and tumblers are popular among criminal and terrorist group financiers. Western governments have historically fought off mixers and tumblers involved in money laundering through regulatory measures and enforcement actions. For example, the United States has engaged in both the sanctioning and criminal prosecution of persons involved in providing this service. Notable cases include the OFAC sanctioning of Blender.io and Tornado Cash in 2022, the designation of Simbad.io, and a seizure of 46 million USD in Bitcoin from Chipmixer in 2023. However, as a report points out, sophisticated criminal actors can quickly adapt and find other obfuscation services when one is shut down (Chain 2024, p. 31).

Another misconception is that blockchains are immutable; thus, it is impossible to seize or freeze cryptocurrencies. Technology has also evolved greatly in this area. Initially, authorities had to physically hold the criminal’s private keys and transfer seized funds to government-held wallets. However, as crypto markets become more regulated, governments can demand that centralized exchanges freeze sanctioned assets under their custody. This is not a perfect solution because these regulations still cannot effectively reach crypto ATMs, dApps, over-the-counter tradings (OTCs), and exchanges that do not follow strict anti money-laundering and counter the financing of terrorism and proliferation (AML-CFTP) procedures. However, centralized exchanges are still the easiest way to convert crypto assets into cash (off-ramping). This practicality explains why centralized exchanges remain the preferred destination for funds sent from illicit addresses (Chananalysis, 2024, p.24). Additionally, with

the creation of blockchains that support smart contracts, it has become possible to have native blacklisted addresses, to freeze, or even to burn and re-issue cryptoassets running on the chain. Some smart contract administrators, such as Tether (USDT), even can freeze sanctioned funds on external DeFi (i.e. decentralized finances) applications.³ This is relevant because it means that it is technically possible to freeze assets held in an external wallet. In fact, several Ethereum addresses that were transacted via the Tornado Cash dApp (a USA sanctioned mixer service) were frozen by Circle (a USD Coin, USDC, issuer) (Coinmarketcap, 2023). In another operation in October 2023, Tether announced that it froze 32 crypto wallets containing \$873,118 USD linked to “terrorism and warfare” in Israel and Ukraine (Howcroft; Wilson, 2023).

Myth 5: Terrorists are technophobes – crypto assets do not appeal to them.

Reality: Terrorist groups are extremely tech savvy.

In some cases, the very idea of crypto currencies appeals to extremist ideologies. This is the case with violent extremism due to xenophobia, racism, and other forms of intolerance, or in the name of religion or beliefs (XRIRB). The idea of a de-centralized financial system

that functions independently of governments is very appealing to extremist ideologies such as Radical Anarchism, Anti-Government Extremist and Accelerationists, who question the need for a government to exist in first place.

Likewise, contrary to common beliefs, terrorist groups tend to be tech-savvy. Extremists have explored new technologies and their vulnerabilities to advance their goals and objectives since the invention of the dynamite, telegraph and railroads in the 1800s. These groups are usually quick to adopt new technologies and adapt their *modus operandi* in response to changes in their security environment. Here are a few cases that illustrate this trend:

Hamas and the Use of Cryptocurrencies

Hamas was one of the first designated terrorist organization to use cryptocurrencies. In 2019, Hamas’s military wing, Izz-Al Din-Al Qassam Brigades, launched campaigns to fund its military activities using cryptocurrencies. Hamas tested soliciting bitcoins via Telegram and directly on its alqassam.net website. Since then, we have seen rapid evolution and increased sophistication in Hamas’s fundraising campaigns via cryptocurrencies. We can clearly identify three phases in Hamas’s cryptocurrency fundraising sub-campaigns (Chainanalysis, 2020):

First Phase:

Initially, sites linked to Al Qassam Brigades began to publish donation requests, providing a QR code linked to a unique Bitcoin address. However, because the address was linked to an exchange in the United States, US authorities quickly froze accounts and investigated the individuals involved.

³ Decentralized finance (DeFi) is an emerging financial technology that offers services without relying on intermediaries such as brokerages, exchanges, or banks. It functions in a peer-to-peer manner by using smart contracts on a blockchain. In 2023, Tether blacklisted 704 contracts and froze over \$150 million USD, Acala froze 16 wallets containing around \$3 billion USD, and Circle froze criminal-related Ethereum funds that interacted with Tornado Cash dApp on external DeFi applications (PHILLIPS, 2023).

Second Phase:

From then on, Hamas began to publish addresses linked to private wallets, not under the custody of exchanges. However, authorities still manage to map transactions using blockchain analyses.

Third Phase:

Finally, the group became quite sophisticated by incorporating wallets and payment methods on their own sites. Thus, Hamas started to create a unique address for each donor and diversify transactions with cryptocurrencies other than Bitcoin. In April 2023, the group even recommended that its supporters not donate Bitcoin to avoid being compromised and announced the end of their Bitcoin donation campaign (Chainanalysis, 2023b). In this phase, the group also experimented with decentralized finances (DeFi), teaching its donors how to create private wallets to make donations. Detailed videos were also released, teaching how to use money exchangers (e-Hawala operators) to make transactions or how to maintain anonymity through the use of public Wi-Fi networks, recommended wallets, and exchange lists.

Since then, the US has announced the freezing of 150 crypto accounts linked to at least three major global fundraising campaigns by the Izz-Al Din-Al Qassam Brigades. These campaigns used sophisticated cyber-tools. Israeli authorities have also closed dozens of cryptocurrency addresses linked to Hamas with a volume of tens of thousands of dollars. Seizures have demonstrated increasing technical sophistication by using various channels, chains, and cryptocurrencies to avoid detection. Currently, the group prefers to use payment channels on their websites rather than to share cryptocurrency addresses.

Additionally, with the beginning of the conflict between Israel and Hamas in October 2023, GAZANOW, a group that actively supports Hamas – requested donations to a cryptocurrency address that received around \$5,000 USD. Since then, the group has started contacting its supporters through direct messages on Instagram, which has interrupted the campaign. Other campaigns like “Tofan al-Aqsa” have been requesting donations via X (formerly Twitter). Thus far, the campaigns have obtained few resources. Israel announced on October 10, 2023, the freezing of cryptocurrency accounts belonging to Hamas. The US Treasury Department’s Office of Foreign Assets Control (OFAC) imposed sanctions on ten members, agents, and financial facilitators of Hamas. The sanctions were also directed at two Gaza-based money service businesses⁴ (MSBs), Buy Cash Money and Money Transfer Company. According to OFAC, Buy Cash has been used to transfer funds by affiliates of terrorist groups, including Hamas, Al-Qaeda, and Da’esh, and to facilitate cryptocurrency fundraising for Hamas (OFAC 2023).

Al-Qaeda in France

In 2019, the French Financial Intelligence Unit (Tracfin) uncovered a new complex terrorism financing scheme used by Al-Qaeda to circumvent the traditional supervisory mechanisms. Supporters of the group would anonymously buy prepaid vouchers for amounts under €200, mainly in tobacco stores, and send voucher information to combatants in warzones. Combatants then used the vouchers to buy

⁴ Businesses, including traditional banks but not only, that provide services in transmitting, converting, or exchanging money.

cryptocurrencies on virtual exchange platforms. Subsequently, the money was transferred through different Bitcoin address clusters to a VASP in the warzone, which then converted the cryptocurrency into cash. After the investigations, 63 donors and two facilitators were arrested in France, and the related crypto-asset wallet was seized.

Other Terrorist-Designated Groups and Their Use of Cryptocurrencies

Other terrorist-designated groups have also launched fundraising campaigns through cryptocurrencies. In 2022, multiple entities linked with the financing of terrorism, including various cryptocurrency exchanges, started experimenting with decentralized exchanges (DEXs) which are peer-to-peer platforms where individuals trade cryptocurrencies directly between themselves in a non-custodial way (TRM, 2023, p.15). In June 2023, Israel's National Bureau for Counter Terror Financing (NBCTF) froze \$1.7 million worth of Hezbollah-linked cryptocurrencies. The NBCTF targeted over 40 USDT addresses on the TRON network, connected to Hezbollah and associated with entities and exchanges in Iraq, Syria, and the Gaza Strip. Typically, the funding pattern of terror operations involves financial facilitators transferring funds to Hawala services and OTC brokers, who then transfer the funds to addresses controlled by Hezbollah on various exchanges. These facilitators often provide services to multiple terrorist groups. In Syria, for example, areas under Hay'at Tahrir al-Sham (HTS) control are consolidating as hub for cryptocurrency where the exchanges provide services to groups such as Da'esh, Al-Qaida and its affiliates (CTED 2024). The

same funding pattern has also been employed by other organizations, such as the Palestinian Islamic Jihad (PIJ) and Da'esh. Da'esh uses the same pattern on on-going fundraising campaigns for ISIS families in internment camps in northeastern Syria. According to TRM Labs, these campaigns ask for donations to improve the detainees' conditions and have raised varying amounts, from a few dollars to tens of thousands (CTED 2024). Additionally, Da'esh affiliates and their supporters in South and Central Asia have been increasingly using cryptocurrency (idem). For example, the al-Azaim Foundation for Media – a group affiliated with Da'esh in Afghanistan – held Bitcoin, Ethereum and TRX (Tron) addresses that received less than 1,000 USDT. Tajik Da'esh-affiliated groups also used cryptocurrencies to recruit members and support Tajik families imprisoned in Syria (TRM 2022).

These cases illustrate how the terrorist use of cryptoassets groups has been evolving. The growth in the use of Tether (USDT) and other currencies such as Ethereum, Dogecoin, Monero, and Zcash. The use of mixers and cold wallets instead of verified accounts. The increasing use of decentralized exchanges and non-custodial peer-to-peer marketplaces as a response to the increasing regulation of VASPs. And the experiments with NFTs all demonstrate how terrorist groups enhance their operational security as a response to the changes in the crypto ecosystem.

Conclusion

The myths surrounding cryptoterrorism significantly cloud our understanding of how digital currencies intersect with terrorist financing. While cryptocurrencies present unique

challenges due to their pseudonymous nature and the sophistication of privacy coins, the reality is that their use by terrorists is still relatively limited compared to traditional financing methods. Understanding that most terrorist funding does not originate from cryptoassets is crucial. Despite high-profile cases, most terrorist financing relies on more conventional methods. Similarly, while terrorists move funds using cryptocurrencies, the amounts involved are typically smaller than reported and far less than the sums moved through traditional channels. In addition, it is important to recognize that not all cryptocurrencies are equally vulnerable to misuse. Although Bitcoin is often highlighted, other cryptocurrencies, particularly privacy coins and stablecoins, are also used for their unique features. This diversity in cryptoassets reflects terrorists' different needs and tactics.

Advancements in blockchain analysis and artificial intelligence have significantly enhanced our ability to trace and seize illicit crypto transactions. These tools allow law enforcement to link transactions to real-world identities and to disrupt terrorist financing networks. However, the race between obfuscation techniques and analytical tools to counter these continues and requires ongoing vigilance and innovation. The notion that terrorists are technophobic is both inaccurate and outdated. Extremist groups are adept at leveraging new technologies to achieve their goal. The evolution of cryptocurrency use, as demonstrated by groups such as Hamas, underscores their capability to adapt and innovate in response to counterterrorist measures.

In conclusion, while the threat of crypto-terrorism should not be ignored, it is essential to accurately contextualize its scale and scope. Effective countermeasures involve a multi-fa-

ceted approach that combines regulation, international cooperation, advanced technology, and public-private partnerships. By dispelling these myths, we can better focus our efforts on realistic and impactful strategies to combat terrorist financing in the digital age.

Annex I

Timeline of High-profile TF through Crypto assets

2014

US authorities found a Dark Web site called "Fund The Islamic State Anonymously" that encouraged Da'esh sympathizers to donate bitcoins for the group.

2015

January: Abu-Mustafa raised 5 bitcoins (USD 1,000 at the time) for Da'esh. His account was closed by the FBI.

May: Abu Ahmed Al Raqqa asks for bitcoin donations via darkweb.

June: A pro-Da'esh forum called "Fund the Islamic Struggle Without Leaving a Trace" began posting how to donate bitcoins for the group.

Ali Shukri Amin is arrested for using Twitter to teach Da'esh members and sympathizers how to use bitcoin.

July: Da'esh-linked Ibn Taymiyyah Center launched the campaign "Jahezona" ("Equip Us") accepting donations in bitcoins

August: Da'esh linked hacker demands 2 bitcoins (USD 500) in ransomware.

2016

Reports suggest that a wallet containing 3 million USD in bitcoin, may been used in the Charles Hebdo attacks that year.

July: Mujahideen Shura Council receives 0.929 bitcoins (USD 540) in 2 transactions after giving this donation option. Twitter infographic with QR code.

2017

January: Indonesia Announces that Middle Eastern Militants are using Bitcoin to fund terrorism.

November: An Al Qaeda-related organization, Al-Sadaqah (voluntary giving), asks for donations in Bitcoins on Facebook, Telegram and Twitter. At least one donation of BTC 0.075 (685USD at the time) was made.

December: A woman is arrested in New York for wiring 62,000USD in bitcoin to Da'esh via China, Pakistan and Turkey. She forged information to acquire loans and credit cards and convert the cash into Bitcoins.

Darknet Isdarat website is launched asking for donations in Bitcoins for Da'esh.

Zoobia Shahnaz, was arrested in the USA for unlawfully obtaining and transferring approximately 85,000USD to Da'esh, 62,700USD of which were transferred in bitcoin and other cryptocurrencies.

2019

Al-Qassam Brigades (linked to Hamas) started a fund-raising campaign posting infographics and instructional videos on how to donate in bitcoins. They raised around USD 3.5k until the

Source: Compiled by J. M. Lasmar from multiple sources

authorities seized 150 cryptocurrency accounts linked to the group in 2020.

Brenton Tarrant, author of the Christchurch attacks in New Zealand in March 2019, used virtual assets to transfer funds for ideologically aligned actors in Europe.

2021

The cryptocurrency exchange platform Coinbase identified Hamas as one of several terrorist groups involved in cryptocurrency fundraising.

July: The Israeli National Bureau of Counterterrorism Finance (NBCFS) seized Bitcoin, Doge, Tron, and other cryptocurrency addresses controlled by agents linked to Hamas.

The Office of Foreign Assets Control (OFAC) sanctioned Farrukh Furkatovitch Fayzimatov, a Syria-based fundraiser and recruiter for Hay'at Tahrir Al-Sham (HTS). According to OFAC, he asks for bitcoin donations on behalf of HTS on the social media. Since his designation, he keeps creating new crypto addresses in various currencies and has raised 12,000USD. These funds came from small contributions using not only mainstream exchanges but also, hosted wallets, and Russian exchanges.

A XRIRB group in South Africa created their own stable coin on a 1:1 ratio with the South African Rand. The group raised EUR 14,720.

2020

August: US Department of Justice (DOJ) announces the largest seizure to date of crypto assets associated with terrorism. Millions of dollars in over 300 cryptocurrency accounts associated with Hamas, Al-Qaeda and Da'esh were Frozen. I total, 150 accounts were linked to Hamas, 100 to Al Qaeda and the rest to Da'esh. The groups moved money through a Bitcoin network and used Telegram and other social media to ask for donations. In some cases, they posed as charities but in most cases openly stated their cause.

2022

The company TRM Labs identifies dozens of cryptocurrency fundraising campaigns for Da'esh families held in internment camps in Al-Hawl. The campaigns moved from a few dollars to tens of thousands.

May: OFAC sanctions five individuals for facilitating money transfers from Indonesia to Da'esh members in Syria. Over USD 517,000 was sent through Indonesia-based exchanges to pro-ISIS fundraising campaigns in Syria. The transfers usually amounted of around USD 10,000 and were made using USDT on Tron.

A Da'esh affiliate in Pakistan began to ask for cryptocurrency donations. According to TRM Labs, the related addresses moved around USD 40,000 over 12 months.

August: A Da'esh supporter created what is probably the first pro-Da'esh NFT.

December: According to TRM Labs, al-Azaim Foundation for Media (AFM), the official media unit of Da'esh affiliates in Afghanistan, used cryptocurrency to raise funds.

Source: Compiled by J. M. Lasmar from multiple sources

2023

A widely circulated but contested report stated that Hamas raised 130 million USD in crypto in the few previous years.

February: A UN report stated that Da'esh is increasingly using virtual currencies. However, the group is moving toward stable coins. The report present evidence that the group has been using Tether in transactions greater than \$100,000, demonstrating increased sophistication in the use of privacy-enhanced cryptocurrencies.

The same report identifies Al-Karrar office as a financial hub of Da'esh affiliates. The Al-Karrar office sent USD \$25,000 worth in cryptocurrency month to Da'esh.

June: Israel's National Bureau for Counter Terror Financing seized USD \$1.7 million in cryptocurrency linked to Hezbollah and Iran's Quds Force through a Syria-based financial facilitator named Tawfiq Muhammad Said Al-Law.

December: Turkish police arrested Shamil Hukumatov, an alleged high ranking Da'esh recruiter and fundraiser. He controlled an address that received around USD 2 million in USDT on the Tron blockchain from donations. The donations came from both centralized exchanges as well as from unhosted addresses.

US DOJ prosecuted an individual for material support to Hamas, including through Bitcoin.

U.S. law enforcement authorities revealed that Qassam Brigades used the cryptocurrency exchange Binance to facilitate cryptocurrency transactions as early as 2019.

TRM Labs also identified multiple pro-Da'esh groups using cryptocurrency in Tajikistan. One of the related addresses received around USD 2 million in USDT on Tron in 2022. Later, on June 22, 2023, Turkish authorities arrested Shamil Hukumatov who was allegedly responsible for the fundraising campaign.

2024

February: Spain arrested a Jordanian who appears to have used USDT on the Tron blockchain to send 200,000 Euros in Cryptocurrencies to Da'esh.

August: The second phase of the Brazilian Federal Police's Operation 'Trapiche – Terrorism Financing' made connections with other money-laundering investigations related to organized crime (Colossus, Hydra) and found existent connections between Brazilian crypto assets operators and Hezbollah-held wallets.

2025

February: According to the Counter Extremism Project, the leader of the neo-Nazi group The Base requested on at least three platforms donations in Bitcoin, Monero, or Tether

Source: Compiled by J. M. Lasmar from multiple sources

KEY:	
	Da'esh
	Hamas
	Hezbollah
	XRIRB actor
	Hay'at Tahrir Al-Sham
	Al Qaeda
	Mujahideen Shura Council

Elaborated by J. M. Lasmar from multiple sources

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RESENHA: Globalizing Regionalism and International Relations

REVIEW: Globalizing Regionalism and International Relations

REVISIÓN: Globalizing Regionalism and International Relations

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RESUMO:

O livro *Globalizing Regionalism and International Relations*, editado por Beatrix Futák-Campbell foi publicado em 2021 pela editora Bristol University Press (Bristol, Inglaterra, Reino Unido). A obra tem o objetivo de retratar histórias locais dos processos de regionalização, com a intenção de compreender mais profundamente suas perspectivas globais. Além disso, busca examinar regiões, regionalismo e os processos de internacionalização que sejam globalizantes. O livro traz novas perspectivas de regionalismo além da experiência europeia, e pesquisadores para além dos norte-americanos ou europeus.

Palavras-chave: Identidade Regional; Resenha; Regionalismo;

ABSTRACT:

The book *Globalizing Regionalism and International Relations*, edited by Beatrix Futák-Campbell, was published in 2021 by Bristol University Press (Bristol, England, United Kingdom). The work aims to portray local stories of regionalization processes, with the intention of understanding their global perspectives more deeply. Furthermore, it seeks to examine regions, regionalism and internationalization processes that are globalizing. The book brings new perspectives on regionalism beyond the European experience, and researchers beyond North Americans or Europeans.

Keywords: Regional Identity; Review; Regionalism;

RESUMEN:

El libro *Globalizing Regionalism and International Relations*, editado por Beatrix Futák-Campbell, fue publicado en 2021 por Bristol University Press (Bristol, Inglaterra, Reino Unido). El trabajo pretende retratar historias locales de procesos de regionalización, con la intención de comprender más profundamente sus perspectivas globales. Además, busca examinar las regiones, el regionalismo y los procesos de internacionalización que se están globalizando. El libro aporta nuevas perspectivas sobre el regionalismo más allá de la experiencia europea y a investigadores más allá de los norteamericanos o europeos.

Palabras-clave: Identidad Regional; Revisión; Regionalismo;

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O livro *Globalizing Regionalism and International Relations*, editado por Beatrix Futák-Campbell, da Universidade de Leiden (Holanda, Países Baixos), foi publicado em 2021 pela editora Bristol University Press (Reino Unido). A obra se inicia apresentando o conceito de “mundos regionais” de Amitav Acharya para expor o objetivo da publicação, que é retratar histórias locais dos processos de regionalização, com a intenção de compreender suas perspectivas globais.

A Parte I introduz os principais conceitos envolvendo regionalismo no campo das RI. O primeiro capítulo é de Futák-Campbell em parceria com Pinar Bilgin (Universidade Bilkent, Turquia), o segundo capítulo de Alanna O'Malley (Universidade de Leiden, Países Baixos), e o terceiro de Vanessa Newby (Universidade de Leiden, Países Baixos). Os três autores apresentam as principais análises teóricas relacionadas ao tema, explicam os conceitos de forma objetiva, e levantam algumas críticas aos primeiros conceitos criados, para mostrar de forma historiográfica a evolução/adaptação desses conceitos ao longo do tempo e como eles sofreram impactos com a ocorrência de determinados eventos das RI – como os movimentos pan-regionais e o aumento de escopo da agenda para questões sociais e ambientais.

O histórico do campo é completo, o que torna essa seção da obra um bom primeiro contato para os alunos da graduação com esse referencial teórico. Ainda, os autores analisam metodologicamente algumas narrativas de Integração Regional, comentando o caso europeu e algumas limitações do foco da teoria apenas no Norte Global², e quais são as vantagens e desvantagens de se realizar uma pesquisa com-

parativa. A partir dessa discussão, é possível pensar diversos problemas de pesquisa que podem ser incentivadores de trabalhos futuros, o que demonstra que a temática pode ser tornar cada vez mais relevante no campo.

A Parte II apresenta três perspectivas teóricas sendo aplicadas em regiões diferentes e focando em agendas específicas do campo das RI. O quarto capítulo é de Densua Mumford (Universidade de Leiden, Países Baixos), e descreve o papel das organizações regionais no continente africano, com foco na Organização da Unidade Africana (OUA); o quinto de Agha Bayramov (Universidade de Groningen, Países Baixos), que discute regionalismo relacionado a questões ambientais no Mar Cáspio a partir de uma abordagem funcionalista; e o sexto de Aysun Uyar Makibayashi (Universidade Dōshisha, Japão), que também discute regionalismo relacionado a questões ambientais, porém focado no Leste Asiático, com uma perspectiva construtivista e mobilizando predominantemente bibliografias asiáticas para realizar a análise. Este último capítulo se destaca ao apresentar uma visão oriental de conceitos como região, regionalismo e regionalização, e a perspectiva apresentada mostra que, apesar de um foco econômico, é possível pensar em um aumento da regionalização do Leste Asiático quando se considera a grande quantidade de organizações regionais presentes e a ampliação do escopo da agenda de pesquisa do campo.

A Parte III é composta por três capítulos focados em uma análise empírica, e que analisam uma região e algumas políticas domésticas. O sétimo capítulo é de Futák-Campbell com Jue Wang (Universidade de Leiden, Países Baixos), o oitavo de Nicolas Blarel (Universidade de Leiden, Países Baixos) e o nono de Müge Kınacıoğlu (Universidade de Hacettepe, Tur-

2 O termo é utilizado por pesquisadores pós-coloniais para se referir aos países desenvolvidos.

quia). Os casos analisados são: a Nova Rota da Seda como impulsionadora de um regionalismo com protagonismo chinês, aumento da cooperação regional entre a Índia e a Ásia Ocidental, e regionalismo baseado em identidade na Turquia.

Uma relevância da obra é a retratação dos movimentos de ideologia identitária. Comumente, são analisados os movimentos pan-eslavista e pangermânico, e o livro inova ao relacionar a ideia de regionalismo com os movimentos pan-asiáticos e pan-africanos – ainda mais quando considerado que são poucas as publicações a respeito que estão disponíveis em inglês e de forma gratuita. Isso pode ajudar que a temática seja difundida para pesquisadores ao redor do mundo e, dessa forma, ocorrer uma maior troca de informações e debates – o que poderia inclusive aumentar a quantidade de organizações regionais e, consequentemente, incentivar a cooperação regional entre os Estados. Ainda, ao retratar outras regiões que não América do Norte e Europa, é feito um incentivo para dar espaço á outras vozes e á outros problemas que são particulares á cada região, o que inclui diversidade racial, de gênero e desigualdade social. Porém, é preciso manter em consideração que mais da metade dos autores da obra são acadêmicos de Universidades Holandesas e, portanto, possuem uma visão eurocêntrica e ocidental do mundo. Isso faz com que seja necessário manter um olhar crítico á alguns dos comentários feitos ao longo do livro.

Em suma, a obra é um texto fluído e que pode ser lido tanto por pesquisadores com experiência na área, quanto por estudantes no início da graduação ou profissionais de outras áreas com interesse no tema – e também por profissionais de fora da academia, como policymakers. Em um mundo tão globalizado e

interdependente, a cooperação regional pode ser uma forma de solucionar problemas ou promover troca de conhecimento para o surgimento de políticas raciais ou de gênero. Novas perspectivas além da experiência europeia, e pesquisadores para além dos norte-americanos ou europeus precisam ganhar mais espaço no campo. Além disso, por ser claro e diverso em temáticas, o livro pode ser um incentivador de novas pesquisas sobre as RI.

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