

# The Emergence of a Security Approach to Climate Change Governance: prospects and challenges to enhance environmental security in Brazil and the global south

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## **Summary**

This article aims to explore the intersection between the human security and the climate change security agendas. It is inquired in which ways a climate change security approach impairs multilateral official channels aimed to enhance the global south demands, especially regarding the sustainable development imperatives. Further, it is investigated how the radicalization of the climate change action with a special focus at the Amazon, may oppose a human-rights based approach enhanced at the UN 2030 Agenda.

Palavras chave: Climate Change, Security, Sustainable Development, Human Security.

O surgimento de uma abordagem de segurança para a governança das mudanças climáticas: perspectivas e desafios para aumentar a segurança ambiental no Brasil e no Sul global

#### Resumo

Este artigo tem como objetivo explorar a interseção entre a segurança humana e as agendas de segurança das mudanças climáticas. Questiona-se de que forma uma abordagem de segurança das mudanças climáticas prejudica os canais oficiais multilaterais que visam aumentar as demandas do Sul global, especialmente no que diz respeito aos imperativos do desenvolvimento sustentável. Além disso, investiga-se como a radicalização da ação sobre mudanças climáticas, com foco especial na Amazônia, pode se opor a uma abordagem baseada nos direitos humanos aprimorada na Agenda 2030 da ONU.

**Palavras-chave:** Mudanças Climáticas, Segurança, Desenvolvimento Sustentável, Segurança Humana.

El surgimiento de un enfoque de seguridad para la gobernanza del cambio climático: perspectivas y desafíos para mejorar la seguridad ambiental en Brasil y el Sur Global

### Resumen

Este artículo tiene como objetivo explorar la intersección entre la seguridad humana y las agendas de seguridad del cambio climático. Se pregunta de qué manera un enfoque de seguridad frente al cambio climático Además, se investiga cómo la radicalización de la acción

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contra el cambio climático con un enfoque especial en la Amazonía, puede oponerse a un enfoque basado en los derechos humanos mejorado en la Agenda 2030 de la ONU.

Palabras clave: Cambio Climático, Seguridad, Desarrollo Sostenible, Seguridad Humana.

On November 2020, a group of security experts published a report on "climate and security in Brazil" to recommend a national security approach to climate change action. (Barretet et. al. 2020). By sending a sharp message to the Brazilian government, the report pushed the armed forces to build adaptation strategies. At the center, an obligation to enforce counter-deforestation, considered critical to meet the international climate goals. Contrasting with the 2015 Paris Agreement rhetoric, this unprecedented report overlaps the climate change governance and collective security frameworks, placing Brazil in a *sui generis* position. This article aims to explore the intersection between the human security and the climate change security agendas. It is inquired in which ways a climate change security approach impairs multilateral official channels aimed to enhance the global south demands, especially regarding the sustainable development imperatives. Further, it is investigated how the radicalization of the climate change action with a special focus at the Amazon, may oppose a human-rights based approach enhanced at the UN 2030 Agenda.

This radical approach to climate change action unfolded by the Climate Change Security report targeting Brazil challenges the traditional forms of governance in several aspects; first, there is a shift from the multilateral arena to an informal transnational network of security experts. The military sectors engagement to reframe the climate change discourse may have pervasive impacts to the balance of power in the global sphere. Second, the affinity of the climate change in connection with security in this perspective, suggests a sort of adaptation of the language of the war on terror for the 21st century existential threats (Werell and Femia 2019). A new dimension of the state failure emerges, as the inaction to tackle climate change turns into a global security hazard to humankind's survival. (Khadka 2019) Third, the relevance of the preservation of the Amazon ecosystem for the climate change action undermines the division between developed and developing countries (Mickelson 2000; Najam 2004; Okereke 2011), with a special burden for South American countries. Fourth, the link between climate change and security actually disregards the human security imperative enhanced at the Sustainable Development Goals at the UN2030 agenda (Biggeri and Ferrannini 2014; Kamau 2018, Fukuda-Parr 2016; Köhler, Jolly and Simane 2012; Teitel 2016). The environmental human security dimension is rather indirectly impacted by the climate change slow-onsets, in the sense that it prioritizes natural and man-made disasters.

(Brock 2012; Hardoy and Pandiella 2009; Ionesco 2017; Miner 2019; Warn and Adamo 2014) Finally, the climate change action litigation in the field of International Criminal Law (Milhorance 2021) may further undermine the trust in multilateralism in the global south (Cowell 2017).

### The 2020 Report on Climate and Security in Brazil: an overview

The International Military Council on Climate and Security (IMCCS) is a group of senior military leaders, security experts, and security institutions engaged in an informal task force to anticipate, analyze, and address the security risks of a changing climate. Established at the Hague, Netherlands, in February 2019, the IMSSC operates as a multi-organizational consortium to share information and best practices on addressing the security and military dimensions of climate change. The IMCCSS is committed to publishing an annual or biennial World Climate and Security Reports with a global assessment of the security risks of a changing climate and recommendations. While the first publications address a number of locations, including South Asia (Shidore 2021), Southeast Asia (Fetzek et. al. 2021), the Indo-Asia and the Pacific (Fetzek et. al. 2020), one in particular targets Brazil. In the 2020 report "Climate Change and Security in Brazil" (Barret et. al. 2020), shed a light on more political aspects of the role of the military forces in the climate change action.

A security approach to the climate change action may not be necessarily opposed to the broader climate change governance. The military forces, acting as first responders to environmental disasters, shall strengthen their capabilities, and update strategies to safeguard climate change induced-displacement. In other words, there is a complementary role to the military that may increase the mitigation of other climate change action targeting the energy sector. In the case of the Amazon protection, 2020 the climate security report shed a light on less consensual aspects of the role of the military forces in the climate change action. As such, the report unveils a direct confrontation with the Bolsonaro administration:

"The current president (Bolsonaro), and many of his cabinet ministers, philosophically, politically, and ideologically support deforestation as a prerequisite for economic growth, believing that part of the prescription for poverty alleviation is opening up new areas of forest for cattle ranches, agriculture, and the timber industry. This paradigm is at odds with Brazil's long-standing pledges to reduce deforestation to zero, to make Brazil a global beacon of environment conservation and climate resilience, and to Brazil's long-term security, given the security risks of climate change and the geostrategic penalties of failing to address it." (Barret

et. al 2020:15).

This sort of language contrasts with the coordinated global south commitment to reduce deforestation to zero within the Post-Paris Agreement climate change governance. Rather, this idealist rhetoric may be better compared to the European Union's ambition to be transformed into a zero-carbon emission zone by 2050. (BBC 2019; Nash and Steurer 2019) This sort of more radicalized discourses calling for urgent climate change action goes beyond the 2015 Paris Agreement official targets and may have more affinity with a "new green deal" approach (Friedman 2019).

The goal to cut the emission of greenhouse gases, GHS, to pre-industrial levels, embraces renewable energy as a tool to decrease pollution, with special regard to the petrol and plastic industries. (Bugge 2009). But to respond to the global south demands a system differentiating between developed and developing countries have been central to underpin the north-south division (Atapattu et. al. 2017; Brunnee 2009; Ebesson 2009; Simon 2005).

The recognition of inequality and the quest for environmental justice integrates every major environmental conference: the 1972 UN Conference on the Human Environment in Stockholm, Nairobi in 1982, Rio de Janeiro in 1992, Rio+5 in New York; and Johannesburg in 2002; moreover, the Kyoto Protocol, the first binding agreement, recognized the "developed countries are mainly liable for the present high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity. Thus they are bound to tackle this problem as the Protocol puts an excessive burden on developed northern nations under the principle of "common but differentiated responsibilities" (Uddin 2017:107).

On one hand, this backward-looking to the leading causes of global warming are associated with the idea of historical responsibility in the context of climate justice. On the other hand, a forward-looking approach focuses on the reduction of carbon emissions unveiling a gray area regarding the scope of a duty to preserve ecosystems vis-à-vis the right to sustainable development (Dehm 2016). By taking a military approach to tackle the state failure to counter deforestation, the 2020 report on "Climate Change and Security in Brazil" cautions on the dire consequences of worst-case scenarios for international security (Barret et. al. 2020: 39). In essence, it is both an invitation to the Brazilian military forces to play a historic role in the frontlines of the climate change action, and an unprecedented warning launched by unofficial channels.

### Climate Security Strategy: national, regional and international dimensions

The persuasive tone of the report makes clear many of the advantages to be profited by Brazil in the national, regional, and international spheres. By tracking the climate change threats, such as floods, droughts, and fires that may disrupt the food and energy supplies, there is no doubt that Brazilians are to be the most affected by human security threats. A retrospective of climate change security impacts includes for example the lack of water in megacities, with a specific assessment on the drought San Paolo state in 2014, and its links to social upheaval. (Barret et. al. 2020:26-8). From both regional and international perspectives, it is the Amazon basin that pushes the debate in another direction. By bringing attention to the fact that Brazil holds the largest area of the Amazon ecosystem, the report engages in two sorts of narratives. One focusing on the existing frameworks of regional cooperation, aiming at a leadership role to be played by Brazil; and another, more apocalyptic, aligned with scientific projections, estimating that the Amazon region "contains carbon stores at 120 billion tons (roughly, ten times the annual global emissions from fossil fuels) 48 making it one of the world's most important carbon sinks." (Barret et. al. 2020:18).

Regarding the regional cooperation within the Amazon Cooperation Treaty framework, the report on "Climate Change and Security in Brazil" recognizes that a positive stand was taken to curb deforestation citing the Leticia Pact signed in September 2019:

"After wildfires destroyed over 7,604 square kilometers (2,970 square miles) of Brazilian rainforest (representing an 85% increase over the same period the previous year), Brazil and six of its closest neighbors (Bolivia, Colombia, Ecuador, Guyana, Peru and Suriname) signed a pact establishing a wildfire disaster response network and satellite monitoring service to enhance situational awareness of forest fires across the basin" (Barret et. al 2020:30).

Yet, when the focus is Brazilian domestic policy, the same report shifts the focus on the policy and legislative frameworks that deliberately weakened environmental agencies, pointing out to President Bolsonaro counterproductive rhetoric that encourages deforestation and other illegal activities (Barret et. al 2020:30). Even though there are still prospects to reverse national policies to better enforce counter deforestation mechanisms, the pressure over the Brazilian government tends to rise as the new Biden administration in the United States and the European Union turn to possible trade sanctions. There are also a growing opposing to an economic deal between the MERCOSUR and the European Union, turning the duty to curb deforestation as a pre-requisite (Boadle 2020).

From an international perspective, the focus on the carbon sink process places the Amazon forest as a global stronghold for transforming carbon into oxygen. An image of the "lungs of the earth" has been disseminated worldwide for decades, leading the Amazon environmental and climate change activism into the spotlight with a level of scrutiny not observed in other areas of the global south. In practice, the comparisons with wild fires in California and Australia only added to the press for urgent climate change action (Freedman 2019). In other words, from a carbon sink process perspective, the Amazon fires' contribution to global warming is both a cause and a result of climate change. As such, the environmental impacts of deforestation in the Amazon, as such, hold a distinct and transformative potential to mitigate or deteriorate, the effects of climate change on a global scale (Gatehouse 2020; Harvey 2020; Woodward 2019).

# Climate Change Security and Environmental Human Security: compatibilities and contradictions

The intersection between climate change and environmental human security challenges the human-rights-oriented paradigm shift that informs the UN2030 agenda in several aspects. The shift from a state-centered approach to human rights instruments to a human security paradigm started with the 1993 Vienna Declaration and Plan of Action (Posner 1997). The overcoming of cold war disputes regarding the priority of civil and political rights over economic, social, and cultural rights, lead to the inception of a new language (Lonergan 2000). By recognizing the interdependent and complementary role of liberal and social rights, also enhances the environmental declaration as an integral part of a rights-based perspective. Latter, the Millennium goals continued the same pattern, contributing to prioritize even more the environmental dimension of human rights (Elliot 2015). As a result, sustainable development turned into a banner for the global south reengagement in the broader human rights debate, with especial regard to the benefits of reducing environmental degradation (Alam et. al. 2015).

From a daily life perspective, the most common threats to environmental human security include environmental degradation, natural disasters, pollution, and lack of basic sanitation resources, such as clean water. The impacts of environmental insecurity may be interconnected to other dimensions of human security, such as health, food, personal and economic human security (Lorraine 2015). An ambitious goal to achieve freedom from fear from hunger, extreme poverty, crime, lack of health care, and pervasive human rights

violations that threaten personal and community life is an integral part of the 2030 UN Agenda human security approach.

In principle, the environmental dimension of human security raised awareness of the necessity to find ways to explore nature according to models of sustainable environmental management. But gradually, the intersection between environmental security and climate change unveiled more intricate aspects, especially regarding infrastructure megaprojects, as it was the case in the mobilization against the construction of the Belo Monte Hydropower plant in the Amazon basin (McGrath 2018). Another major hotspot was unveiled by the poor management of large-scale mining in the 2015 Mariana and 2019 Brumadinho dam disasters (Fedi 2020; Shook 2018). The scope of environmental insecurity in these scenarios actually is disregarded by the 2015 Nansen Initiative's strict focus on disaster and climate change cross-border induced-displacement. (Gonzalez 2019; Kälin 2015) The global responses to environmental disasters, such as the Disaster Risk Reduction (DRR) and the Platform for Disaster and Displacement (PDD), are more instrumental (McAdam 2016). The aim is to increase the level of preparedness and cooperation to advance best practices in responding to environmental disasters, with special regard to rapid-onset events, such as earthquakes, tsunamis, and cyclones (ICRC 2011). From an environmental human security perspective, the emergence of the climate change action as a cross-cutting phenomenon challenges the human rights-centered discourse. By enhancing a forward-looking vision of global governance to tackle climate change, it overshadows relevant dimensions of environmental human security already turned into a reality in the global south. This inconsistency is more evident by comparing the international reactions to the Amazon fires in 2019 and 2020, and to the 2015 Mariana disaster. The latter, considered the worst environmental disaster in Brazilian history (Carmo 2017; Gormezano 2016), causing the destruction of the entire course of the Doce River, compared in size with the Seine River, was basically ignored by the 2015 Paris Agreement.

Either, the broader awareness of the environmental insecurity caused by industrial mining did not prevent the Brumadinho Dam disaster in 2019, causing the deaths of 300 people buried alive in the toxic mud, and hundreds displaced. Further, contrasting to the Amazon fires, these environmental disasters impacted one of the most developed areas of Brazil. The heart of the steel industry in South America for centuries, the Minas Gerais state, the size of France and the second-most populous state in Brazil experiences a pervasive high level of human insecurity. Moreover, the links between climate change and the increase in recurrent floods and landslides shed a light on the multiple outcomes entrenched in the

context of environmental degradation caused by the mining industry. Yet, this sort of environmental disaster is disregarded by the prioritization of natural disasters within the climate change security guidelines. In the economics of climate change, instead, the mining industry invests in selling sustainable models for the global south (Wachenfeld 2018).

Despite the human insecurity inherent to the large scale mining in populated areas, it is illegal mining and deforestation in the Amazon ecosystem that is considered more serious for the humankind survival in the future. The first is indeed a threat to environmental human security of the indigenous and other local population, resulting in water contamination with serious threats to health and food security. Deforestation, often with the spread of fires, also increases the level of human insecurity on the ground. As part of the ongoing colonization process of the Amazon area, this dynamic is reproduced for centuries, having perverse consequences for the indigenous populations, in particular.

### Climate Change Action in Amazon: ecological alternatives to sustainable sovereignty

The radicalization of the climate change action, with special regard to the Amazon basis, intervenes in the South American states' sovereignty in many aspects. First, this narrative claims that megaprojects are not sustainable due to the ecological impacts, demanding the substitution for "green models". (Atkins 2018; Gatehouse 2020; Harvey 2020; McGrath 2018). The hydroelectric power plants are viewed as incompatible with the protection of the Amazon ecosystem. This sort of approach was taken by the environmental activism that opposed the construction of the Belo Monte Dam. Second, the climate change action seeks to take a role in protecting the rights of the Amazon indigenous peoples. This human dimension of the climate change action departs from the human security imperative, more concerned with the role played by indigenous communities in preserving the forests, perceived as a sort of guardians of the Amazon ecosystem (Hecht and Cokburn 2011). While the climate change activism may converge, in some cases, with the indigenous peoples' interests, so far, this approach was translated into strategic human rights litigation in regional and international channels.

In the case of the construction of the Belo Monte dam, state failure to comply with the International Labor Organization Convention 169 (ILO 1989) was at the center of the dispute. The necessity of consulting process to grant the indigenous participation in the decision-making process in the building of infrastructure projects that impacts their territories is not contrary to sustainable development. From this standpoint, the claim that the indigenous

people are the guardians of the Amazon reproduces an imperialist narrative, disregarding the multiple outcomes of the ILO 169 bottom-up process in concrete situations (Henriksen 2008). To imply that the indigenous communities would not have an interest in the benefits of development to get access to electricity, health services, education, is not only illogic. It is also opposed to the very notion of human security, resulting in deliberate discrimination between indigenous and non-indigenous populations.

While this narrative creates an idealistic image of the indigenous peoples as those in charge of saving the planet lives in harmony with nature, the geopolitics of knowledge remains dictated by the rich North (Mignolo 2002). Thus, this perspective adds to increase the abyssal gap between the epistemologies of the south and the institutionalized scientific process of validation of truth (Santos 2018). In this sense, Barreto points out the fact that "apart from creating a global political order, colonialism also gave rise to global epistemological order. The legal and geographical lines separating metropolises and colonies on the map of the early modern world had consequences in the arena of epistemology. On this basis, it is possible to say that one of the founding moments of abyssal or modern thinking is precisely that of the colonization of the world" (Barreto 2014: 402).

The multiple engagements of non-state actors, such as scientific associations, social movements, environmental activists and NGO's to side with the indigenous communities may have both positive and negative outcomes. By offering platforms to give visibility of their concrete demands, there is pressure aimed both at the state and the broader audience. It bears the potential to transform the negative stereotypes and add to overcome discrimination, bridging new forms of solidarity with the indigenous struggles. On the negative side, there is a backlash to environmental activism, increasing the vulnerability of the indigenous populations inside and outside their territories. The links between indigenous groups and NGOs funded by developed countries are claimed to be part of international intervention, as is the case in the Bolsonaro administration (Santilli 2020; Watts 2019). The indigenous populations are caught in the cross-fire, and often it is their leadership that pays the price with their own life. The political assassination of indigenous leaders turns into the local response to regional and international pressures.

This dynamic may be observed in the case of Roraima state, where despite the Brazilian Supreme Court decision in favor of the indigenous claims to the land title resulted in a setback. The local reaction was to kill the leadership and burn the villages, so the Brazilian state failure to enforce the legal precedent was brought to the Inter American Commission of Human Rights (CIDH 2010). In the case People Xukuru vs. Brazil (2018), the Interamerican

Court of Human Rights (IAtHR) decision unveils the failure of the Pernambuco state and Federal authorities to avoid the legal dispute. (Navarro, 2019; CIDH, 2018) The unsettled disputes remained despite the payment of the compensation stipulated by the IAtHR (CIMI 2020), at the 2020 municipal elections, there was local resistance to grant the Cacique Marquinhos the victory to be the first indigenous mayor of the Pesqueira municipality in the Pernambuco state (Basilio 2020).

While these precedents highlight the state failure to enforce its own commitments to enforce human rights obligations in the national level, in the regional and international spheres the Belo Monte dam imbroglio is emblematic. The Belo Monte project survived the transition from the dictatorship to democracy, and was advanced by the left and right-wing governments despite the international outcry (Fainguelernt 2016). In 2010, a precautionary measure of the IAtHR called the Brazilian state to comply with human rights obligations with special regard to the indigenous people living in the area. (IAtHR 2010). The approach taken by the Court aimed at mitigating the impacts of the megaproject, reported at the OAS in 2011 citing the compatibility of healthcare pre-requisites to protect the communities in isolation (OAS 2011).

# The Criminalization of Deforestation: prosecuting crimes against humanity and the environment

The radicalization of the climate change action seeks to transform the international criminal law scope to address environmental existential threats, including a proposal to typify a crime of ecocide (Greene 2019; Sarlieve 2020; Mwanza 2018). This approach is problematic in many aspects. While from a legal perspective, an amendment of the Rome Statute could be valid, it is not clear what would be the nature of the crime, and the responsibility of non-state actors, including the private sector. Moreover, despite comparisons with crimes against peace (Mehta and Prisca 2015), ecocide means the destruction of the earth sharing more affinity with the crime of genocide, but it is forward-looking. It rather means preventing an Armageddon placing the sinking islands in the frontlines of the climate change action. Yet, the rising sea level due to global warming is only a small part of the big picture. The urgency to criminalize ecosystem destruction is a direct response to the call of small islands from the Pacific, such as Vanuatu, Tuvalu, and Maldivas, with the support of European countries (Bowcott 2020).

From a global south perspective, the narrow approach fails to address climate change

threats to environmental insecurity more common to the reality of most developing states (Assad et. al. 2013; Barbieri et. al. 2010; Kjellen 2009; Schuler 2014). The devastating impacts of the increasing floods, landslides, and droughts, both in rural and urban areas of the global south threatens all dimensions of human security (Delgado-Ramos 2015; Hardo, 2009; Romero-Lankao et. al 2012). The links between environmental degradation, lack of infrastructure, including basic sanitary condition and high population growth are often regarded as a cause of climate change as well (Shawkat et. al 2015; Schuler 2014).

Adding to this imbalance, the very legitimacy of the ICC has been put into question due to its selectiveness targeting developing states (Cowell 2017; Tladi 2009). The international crimes committed in the context of the war on terror, under the United States leadership in cooperation with the European states, so far, have not been investigated by the ICC. In fact, the United States has not ratified the Rome statute, but the ICC is a European project, envisaged, funded, and hosted by the European Union (Allo 2018). Yet, South America joined the project since its inception, integrating the composition of the ICC, including judges and the first chief prosecutor was from Argentine. The choice of Moreno O'Campo, a former prosecutor in the Argentina "Junta Trial" during the late 1990s was also emblematic to place South America transitional justice experience as a progressive model in the fight against impunity for human rights atrocities (Teitel 2003; Sinkkin 2015). Nevertheless, during the last decade, South American states, including Venezuela and Colombia, started to be subjected to preliminary investigations, where officials face charges of crimes against humanity (ICC 2020; Ambos and Aboueldahab 2019).

While these cases share similarities with other situations where there is the intersection between the violations of human rights in the context of international crimes, it may be observed a new trend targeting Brazil at the ICC. The recent initiatives to prosecute the Brazilian authorities, including President Bolsonaro, for Amazon fires in 2019 and the Covid-19 impact on the indigenous populations shifts the focus to the environmental dimension of international crimes (Casella 2020; Grisafi 2020). The argument regarding the risk of the genocide of indigenous groups dismantling of Brazilian institutions, such as IBAMA and FUNAI, supports the accusation indicating that "President Jair Messias Bolsonaro's statements are likely to raise deep concern, as genocide is unlikely to occur without being preceded by a dehumanization speech. But the risk of genocide is not just rooted in discourse: dismantling environmental policies and structures for supervision and control have also allowed for an increase in violence across the forest, with indigenous leaders being murdered, directly impacting the long-term survival of these groups." (Vilela 2020).

From a legal standpoint, the ICC may enhance a teleological interpretation to push forward this sort of investigation. In the case of genocide, the necessity to prove the intention, also known as *mens rea*, to commit the extermination of indigenous groups in the Amazon presupposes the aim to destruct the ecosystem critical to the survival of this way of life. Moreover, the radicalization of climate change action may eventually influence the legal discourse, leading to a more active role for the ICC to advance climate change security. The convergence between environmental and human rights activism in the international criminal law arena, as such, may have pervasive implications to Brazilian foreign policy. A refusal to cooperate with developed countries in favor of the preservation of the Amazon ecosystem may not only be counter-productive but also lead to more strategic advocacy targeting Brazil in multiple human rights channels.

### **Concluding Remarks**

The emergence of a security approach to climate change governance in connection with the radicalization of environmental activism increases the north-south divide on environmental security and sustainable development. The climate change action agenda enhances a forward-looking perspective with distinctive implications for South America, placing the Amazon ecosystem as a major resource of carbon sink. While the 2015 Paris Agreement framework focuses on the reduction of the emission of carbon as product of manmade activities, in the case of the Amazon it is the state failure that is at stake. This sort of approach seems to be endorsed by the report "Climate Change Security in Brazil", suggesting a growing interest of the military non-official channels to reframe the threats to global security in order to respond to climate change. Indeed, the armed forces already operate as first responders in case of environmental disasters. During the last decades, the increase in the frequency and scale of these climate events turn the military into an even more relevant stakeholder in the climate change agenda. However, this may be a narrow approach to climate change action if compared with other aspects of environmental security in the global south.

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