

THE COVID-19 PANDEMIC AS A GLOBAL NATURAL DISASTER AND THE KALEIDOSCOPE OF INTERNATIONAL LEGAL STRATEGIES

LA PANDEMIA DE COVID-19 COMO DESASTRE NATURAL GLOBAL Y EL CALEIDOSCOPIO DE ESTRATEGIAS JURÍDICAS INTERNACIONALES

DOI: 10.19135/revista.consinter.00019.02

Received/Recibido 14/05/2024 – Approved/Aprobado 29/08/2024

*Raquel Torres Gontijo*¹ – <https://orcid.org/0000-0001-7516-2918>

*Deilton Ribeiro Brasil*² – <http://orcid.org/0000-0001-7268-8009>

*Elena E. Gulyaeva*³ – <https://orcid.org/0009-0002-2708-8332>

Abstract

The paper aims to examine the pandemic caused by Covid-19 as a global natural disaster under the framework of the International laws focusing its worldwide concern. The research seeks to answer the following problem question: can the Covid-19 pandemic be classified as a global natural disaster? If it is positive, the regulatory standards of international law could be applied due to the humanitarian emergency? The method used was the deductive for the construction of theoretical debate related to dogmatic concepts related to the issue. Regarding the results, the research makes a general conclusion about the possibility of considering the Covid-19 pandemic as a global natural disaster due to its potential impacts under International regulatory laws as a plausible alternative in the quest for an effective solution.

Keywords: International law. Disaster law. Pandemic. COVID-19. Humanitarian emergency.

Resumen

El artículo tiene como objetivo examinar la pandemia causada por Covid-19 como un desastre natural global en el marco del derecho internacional centrandolo su preocupación a nivel mundial. La investigación busca responder a la siguiente pregunta problemática: ¿se puede clasificar la pandemia de Covid-19 como un desastre natural global? ¿De ser positivo se podrían aplicar los estándares normativos del derecho internacional debido a la emergencia humanitaria? El método utilizado fue el deductivo para la construcción del debate teórico relacionado con conceptos dogmáticos relacionados con el tema. Respecto a los resultados, la investigación llega a una conclusión general sobre la posibilidad de considerar la pandemia de Covid-19 como un desastre natural global debido a sus potenciales impactos bajo las leyes

¹ PhD Student, University of Itaúna (UIT), Itaúna, Brazil, South America, <https://orcid.org/0000-0001-7516-2918>, raqueltores1975@hotmail.com.

² University of Itaúna (UIT), Itaúna, Brazil, South America, <https://orcid.org/0000-0001-7268-8009>, deilton.ribeiro@terra.com.br.

³ Diplomatic Academy of the Russian Ministry of Foreign Affairs, Moscow, Russian Federation, <https://orcid.org/0009-0002-2708-8332>, gulya-eva@yandex.ru.

regulatorias internacionales como una alternativa plausible en la búsqueda de una solución efectiva.

Palabras-Clave: Derecho internacional. Ley de desastres. Pandemia. COVID-19. Emergencia humanitaria.

Summary: 1. Introduction. 2. Classification of the Covid-19 pandemic as a global natural disaster. 3. Some considerations on the anthropocene and disasters: collapse of the distinction between human and natural disasters. 4. Disruptions stemming from the Covid-19 pandemic are a focal point within the realm of International Law. 5. In lieu of a conclusion. 6. References.

1 INTRODUCTION

The current historical moment is characterized by instabilities, insecurities, and uncertainties. The Covid-19 has spread worldwide in different ways and proportions. According to Hathaway *et al.* (2020)⁴, the pandemic has spread rapidly, causing devastating consequences of various dimensions and categories in various parts of the world.

On January 30, 2020, the World Health Organization's Emergency Committee, based on the International Health Regulations⁵ (IHR), declared the acute respiratory disease Covid-19 a public health emergency of international concern (Lee, 2020). On March 11 of the same year, the World Health Organization (WHO) declared the new outbreak of severe acute respiratory syndrome coronavirus (SARS-CoV-2) a global pandemic. The WHO⁶ Coronavirus Panel reports that the number of confirmed cases of Covid-19 is over 194 million, with deaths surpassing the 4 million mark. Recent weekly operational updates on Covid-19 reinforce the mentioned data⁷. The United Nations Development Programme⁸ (UNDP) warns that

⁴ According to Oona Hathaway, Lim Preston, Alasdair Phillips-Robins & Stevens Mark (2020), it is believed that Covid-19 originated in Wuhan, China, with the first reported patient in December 2019. It manifested in Europe in the same month. Infections in the United States were detected in January 2020. The first case on the African continent was recorded in early February, and a few weeks later, cases emerged in Latin America.

⁵ In Brazil, the revised text of the International Health Regulations (IHR), agreed upon at the 58th World Health Assembly on May 23, 2005, was approved by the National Congress on July 9, 2009 (Legislative Decree No. 395) and promulgated by the President of the Republic on January 30, 2020 (Decree No. 10,212).

⁶ The WHO Coronavirus Dashboard, updated daily, presents the general foundations of the pandemic. The Dashboard disseminates data and elements related to different levels and perspectives (global, continental, regional, and national). Among other information, it discloses, based on notifications reported to the WHO, the occurrences of confirmed cases, deaths, and doses of vaccines administered.

⁷ Data and information updated until July 27, 2021.

⁸ The UNDP operates in over 170 Member States and Territories. Established by the General Assembly (UNGA) in 1965, it stems from the merger of the United Nations Expanded Programme of Technical Assistance (1949) and the United Nations Special Fund (1958). The current strategic plan of the UNDP emphasizes three broad development goals: eradication of poverty in all its forms and dimensions, acceleration of structural transformations, and building resilience to crises and conflicts (the latter being strictly related to the content of this article). In pursuit of the aforementioned purposes, optimizing resources and experiences for the execution of the 2030 Agenda, and generating real impacts, the UNDP identifies specific approaches and procedures, operating within six Cross-Cutting Areas. Of particular note, given its relevance to the present study, is the area of crisis prevention and increased resilience (UNDP, 2021).

the Covid-19 pandemic shakes the very foundations of current societies, exposing inequalities, weakened health and social security systems, and digital exclusion. Additionally, in many parts of the world, there has been an intensification of conflicts and instabilities, leading to incalculable human suffering and record numbers of forced displacement (UNDP, 2020). Corroborating the above elements, the United Nations (2021) reiterates that “the transmission of diseases such as Covid-19 between animals and humans (zoonoses) threatens economic development, animal and human well-being, and ecosystem integrity”.²

CLASSIFICATION OF THE COVID-19 PANDEMIC AS A GLOBAL NATURAL DISASTER

Disasters are often considered uncommon events that do not belong to normal life. However, in reality, according to the United Nations Office for Disaster Risk Reduction (UNDRR, 1992), the opposite is true. Disasters and emergencies are parts of everyday life. They are not rare events but rather common occurrences. The impacts of disasters are exacerbated by the ways societies are structured (politically, economically, and socially), modes of interaction, and the structures that underpin relationships among decision-makers. Almost daily, somewhere in the world, a disaster occurs. Many of these events are small in scope, with their effects managed using local resources. However, some exceed the local response capacity of governments, public health systems, and relief organizations. These are the disasters that require international assistance, characterizing a humanitarian emergency situation (Anderson, 2018).

Primarily, disasters are classified as either natural or human-made⁹. A distinct categorization considers disasters as immediate (sudden onset) or slowly unfolding (slow onset). Mark Anderson & Michael Gerber (2018) explain that disasters are triggered by natural forces or events perpetrated by humans. They add that natural disasters include events that occur suddenly, without warning signs, such as earthquakes, floods, tropical storms, tsunamis, volcanic eruptions, and landslides (considered sudden onset disasters)¹⁰; while others develop slowly, with their full impact not felt for years (encompassing droughts, famine, environmental degradation, deforestation, and pest infestations). Thus, disasters are classified into two main categories, natural and human-made, and five subcategories: sudden onset disasters, slow onset risks, technological and industrial events, epidemics, and complex emergencies.

Multiple concepts of disasters are pointed out. However, in the multilevel disaster protection system¹¹, there is a lack of a uniform or standardized definition, of general scope, of the meaning and extent of the word "disaster." UNDRR defines a disaster as a severe disruption of the functioning of a community or society at any scale due to hazardous events interacting with exposure, vulnerability, and capacity conditions, leading to one or more of the following consequences: human, material, economic, and environmental losses and impacts.

⁹ It is necessary to point out that the mentioned distinction (natural disaster versus human-made disaster), despite being used in classifying the current pandemic as a global natural disaster, is subject to criticism from the present study.

¹⁰ Floods are the most common natural disasters and often lead to widespread food shortages and population displacement. Earthquakes, although not as common, cause the majority of deaths and injuries (Anderson, 2018).

¹¹ Multilevel protection of rights encompasses basically three dimensions: local, regional, and global.

For the Pan American Health Organization¹² (PAHO), a disaster is a “natural phenomenon or caused by human action, which produces a massive disruption in the health services system, characterizing such a great and immediate threat to public health that the affected country requires external assistance to address the situation”.

The Brazilian Civil Defense considers a disaster a phenomenon “resulting from adverse events, natural or human-made, affecting a vulnerable population, causing human, material, and environmental damage and consequent economic and social losses” (RFB, 2000). The International Law Commission (ILC), in the draft articles on the protection of persons in the event of disasters (Article 3), defines a disaster as “a calamitous event or series of events resulting in widespread loss of life, great human suffering and distress, mass displacement, or large-scale environmental or material damage, seriously compromising the functioning of society”.

Krum & Bandeira (2008) argue that natural disasters should be perceived as a violation of the balance of the system as a whole, considering both the individual within the group and the group itself. An integrated understanding of this experience cannot do without a social perspective on how its victims face such a phenomenon (Gomes & Cavalcante, 2012).

Notwithstanding the lack of a consolidated definition, common elements are found in the presented concepts. Therefore, a disaster: 1) results from a hazardous event; 2) interacts with exposure, vulnerability, and capacity conditions; 3) causes disruptive consequences sufficient to affect the normal functioning of a society (human, material, economic, and/or environmental losses and impacts). It should be noted that if the affected society is unable to cope with the implications using its own resources and requires international support, a humanitarian emergency situation is identified.

Epidemics or disease outbreaks are natural phenomena with different modes of transmission (water, food, vectors, personal contact) that can escalate into disasters¹³, as well as situations of humanitarian emergency¹⁴. Complex humanitarian emergencies result from the interaction of various factors. Any disaster, whether natural or human-made, has the potential to transform into a complex humanitarian emergency. When international support is essential to address fundamental needs of the affected population, a complex humanitarian emergency is identified¹⁵.

¹² The Pan American Health Organization (PAHO) serves as the contact point for the International Health Regulations (IHR) in the Americas Region (PAHO, 2020).

¹³ The International Federation of Red Cross and Red Crescent Societies (IFRC) – a crucial international actor in the field of disaster law – in 2007, considered the outbreak of a disease (HIV) as falling within the definition of a disaster (IFRC, 2007).

¹⁴ The Ebola outbreak in West Africa is an example of how a society's inability to contain a specific infectious disease can lead to a humanitarian emergency (Anderson, 2018).

¹⁵ Mark Anderson & Michael Gerber (2018) describe a humanitarian emergency as a disaster that requires international support (humanitarian assistance) to address the basic needs of the affected population (including food, water, shelter, protection, and any other life-sustaining measures). They clarify that the term “complex emergencies” (also known as complex humanitarian emergencies) is a relatively recent concept in the international community. Introduced in the late 1980s, it aimed to describe specific humanitarian crises occurring in Africa. In the subsequent decade, it found common usage among various aid organizations, including the United Nations.

According to the UN, a complex humanitarian emergency is a major multicausal crisis (caused by multiple factors)¹⁶ that requires a response from the entire system. It often necessitates the combination of medium and long-term policies, conflict resolution mechanisms, and peacekeeping operations. Indeed, there is a two-way correlation. The repercussions of natural disasters are exacerbated by existing instabilities and fragilities and, simultaneously, can trigger and/or amplify vulnerabilities and imbalances, leading to conflicts, precariousness, and situations of complex humanitarian emergencies.

The Covid-19 pandemic has generated a multidimensional crisis, affecting public health, the economy, social aspects, as well as human rights protection (UNDRR, 2021). Indeed, the current pandemic is considered a natural disaster (and a catastrophe of massive proportions) with disruptive consequences sufficient to affect the normal functioning of the entire global society. Simultaneously, with the identified need for international support, the situation is also classified as a complex humanitarian emergency.

On January 30, 2020, the World Health Organization's Emergency Committee, based on the International Health Regulations (IHR), declared the acute respiratory disease Covid-19 a public health emergency of international concern (Lee, 2020). In turn, Délton Winter de Carvalho (2020) notes that it is inevitable to consider the pandemic caused by the new coronavirus as a true disaster, triggering systemic social destabilization.

In the United States of America, throughout the past year, civil litigants sought rulings from various courts on a specific question: Is Covid-19 a natural disaster? In at least three cases, the answer was a resounding yes (JDSUPRA, 2021). The Supreme Court of Pennsylvania (2020) asserted¹⁷ and reiterated¹⁸ that "the Covid-19 pandemic is, by all definitions, a natural disaster and a catastrophe of massive proportions." Similarly, the Southern District Court of New York¹⁹ held it undeniable that the Covid-19 pandemic is a natural disaster²⁰.

Analyzing the DeVito case, Crowel & Moring (2020) explain that the Emergency Code of the state of Pennsylvania describes a natural disaster as any hurricane, tornado, storm, flood, waters driven by wind, tidal wave, earthquake,

¹⁶ It is crucial to emphasize that, frequently, the emergencies under analysis occur in contexts of political instability.

¹⁷ Case Friends of Danny DeVito (and others) vs. Tom Wolf, Governor of the State of Pennsylvania (and others). Decision dated April 13, 2020.

¹⁸ Case Democratic Party of Pennsylvania vs. Boockvar (and others). Decision dated September 17, 2020.

¹⁹ Case JN Contemporary Art LLC vs. Phillips Auctioneers LLC. Decision dated December 16, 2020

²⁰ In contrast to the certainty of the courts in Pennsylvania and New York, other courts have left open the question regarding the classification of the pandemic as a natural disaster. In a lengthy opinion discussing material adverse effect clauses, the Chancery Court of Delaware (Case AB Stable VIII LLC vs. Maps Hotels & Resorts One LLC) summarized the testimony of an expert who examined 144 publicly available transaction documents. Certain documents distinguished pandemics from natural disasters, others understood pandemics as similar to natural disasters, and some included pandemics as a subtype of natural disasters. The Delaware Court's analysis of the scope of the meaning of 'natural disaster,' however, did not seek to distinguish between the origin of the virus (coined by natural forces) and the consequences of uncontrolled transmission (certainly exacerbated by the acts and decisions of human beings) (Nussbaum, 2020).

landslide or mudslide, snowstorm, drought, fire, explosion, or other catastrophes resulting in substantial damage to property, adversity, suffering, or possible loss of life.

In the DeVito case, the issue revolved around qualifying a viral disease (Covid-19) as "of the same nature or general class" as the types of catastrophes listed in the definition of "natural disaster," in order to fall under the category of "other catastrophes." They report that the court affirmed this, stating that by establishing a specific list and then adding the language "or other catastrophe resulting in substantial damage to property, privations, suffering, or possible loss of life," the intent of the law is to expand the scenarios of disasters qualifying as "natural disasters". The court concluded that the "Covid-19 pandemic is, by all definitions, a natural disaster and a catastrophe of massive proportions".

In September 2020, in the case *Pennsylvania Democratic Party v. Boockvar*, the Supreme Court of Pennsylvania, citing the DeVito case, reiterated that the coronavirus pandemic constitutes a natural disaster, declaring no hesitation in again²¹ concluding that the ongoing Covid-19 pandemic is a natural disaster (Fires, 2021).

In the case *JN Contemporary Art LLC v. Phillips Auctioneers LLC*, the Southern District Court of New York held that "it cannot be seriously contested that the Covid-19 pandemic is a natural disaster" and that, according to New York law, the pandemic falls under the term "natural disaster" and, therefore, within the scope of the force majeure provision that allows the termination of a contract as a "result of a natural disaster." The court sought strong support in the definitions from Black's Law Dictionary of "natural" ("caused by nature as opposed to artificial means") and "disaster" ("calamity; catastrophic emergency"). Nussbaum (2020) notes that the court based the decision on various other sources, finding support also in the decisions of the Supreme Court of Pennsylvania to conclude that the Covid-19 pandemic is a natural disaster. Additionally, it pointed to the "declaration of a major disaster" by the President of the United States, under the Stafford Act (which defines "major disaster" as including "any natural catastrophe")²².

It is noteworthy that in other cases where the courts did not delve into the study of the meaning of the term "natural disaster," they did not actually seek to distinguish between the origin of the virus (coined by natural forces) and the consequences of uncontrolled transmission (certainly exacerbated by the acts and decisions of human beings) (Nussbaum, 2020).

In the current situation, it is imperative to emphasize the disruptive consequences brought about by the pandemic, which notably affect the normal functioning of global society in various dimensions, causing human, material, economic, environmental losses, as well as uncertainties, insecurities²³, instabilities,

²¹ Adler Pollock (2021) emphasizes that the conclusion, considering the current pandemic as a natural disaster, was asserted and reaffirmed in different contexts (in the Boockvar Case and the DeVito Case).

²² Notwithstanding the possibility of argumentation regarding the current pandemic being similar to the examples of natural disasters expressed in the Stafford Act, the president interpreted it to include the pandemic (Nussbaum, 2020).

²³ The observed insecurities occur in various spheres. It is noteworthy to highlight psychological insecurity, which is often not perceived or weighed. Cybersecurity insecurity also requires emphasis.

intensified conflicts, exacerbated poverty, and increased hunger²⁴, among other impacts.

3 SOME CONSIDERATIONS ON THE ANTHROPOCENE AND DISASTERS: COLLAPSE OF THE DISTINCTION BETWEEN HUMAN AND NATURAL DISASTERS

Despite the foundations and arguments woven above regarding the classification of the pandemic caused by Covid-19 as a natural disaster, it is crucial to highlight the trend towards the collapse of the distinction between human and natural disasters in the period called the Anthropocene²⁵.

Indeed, due to the extent and complexity of events in the Anthropocene era²⁶, originated and fueled by various social and ecological factors²⁷, the absolute differentiation between disasters caused by humans and those not caused by humans becomes intangible. It is a scientific observation that, in the Anthropocene, the Earth's environmental systems are pushed beyond planetary boundaries that constitute the safe operating space for human civilization. The "great acceleration" after the end of World War II, the increase in greenhouse gases, ocean acidification, loss of biodiversity, and anthropogenic climate change-induced global warming are defining episodes of the beginning of the Anthropocene, which increase the frequency of extreme weather events²⁸ and pandemics.

Interpol (2020) reported a concerning increase in cyber incidents since the beginning of the pandemic. Jürgen Stock, Secretary-General of Interpol, emphasized that cybercriminals are developing and escalating their attacks at an alarming rate, exploiting the fears and uncertainties caused by the socially and economically unstable situation created by Covid-19.

²⁴ Rome, July 12, 2021 (WHO). Global hunger underwent a dramatic worsening in 2020, as emphasized by the United Nations today – and likely, the increase is related to the consequences of Covid-19.

²⁵ Also known as the Age of Humanity, the Anthropocene is a geological chronological term proposed for the era that began when human activities started to have significant global implications on Earth's ecosystems. According to Ecycle, "for scientists advocating the official transition to the Anthropocene, human influence on the planet would have permanently impacted the Earth to the extent that justifies the adoption of a new geological epoch characterizing human activity." Similarly, Anson W. Mackay (2015) argues that the Anthropocene, as a geological term and disciplinary concept, has gained widespread acceptance in recent years, representing the period in which humans have had the most significant global impacts on various Earth systems (e.g., atmosphere, ocean, and terrestrial biospheres), after 1800 AD.

²⁶ The current era is tarnished by processes incompatible with the sustainability that guides humanity towards the climate abyss. The unstoppable advances of global warming are likely to culminate in the entropic death of the planet. In this context, the teachings of Enrique Leff (2010) awaken the perception that ecological risk emerges in the context of the global crisis of our time. This crisis is multifaceted (environmental, civilizational, knowledge-related, and concerning humanity itself). The situation necessitates a pressing reflection on issues related to environmental rationality, ecological awareness, and sustainability.

²⁷ Mark Anderson & Michael Gerber (2018) clarify that numerous natural disasters are complex events with multiple social and ecological causes. Enrique Leff (2010) warns that the progressive march towards climate change, as a result of processes triggered, inflated, and directed by a historically constructed economic rationality, leads to the manifestation of inevitable universal laws.

²⁸ Alexandra Birchler (2020) explains that the greater incidence of extreme weather events increases the number of cases in which these events turn into natural disasters and devastate societies, communities or even entire nations.

In the Anthropocene, humanity causes global environmental changes that elevate the occurrence of some "natural" disasters, such as extreme climate change and pandemics. Thus, zoonotic diseases, such as Covid-19, are often related to environmental changes and imbalances²⁹. In this context, as elucidated by Bioemfoco (2018), the connectivity of current society directly affects how people, animals, and the environment interact, providing greater opportunities for the transmission of zoonotic diseases. It becomes imperative to effectively apply the concept of One Health³⁰ to protect people and animals and to prevent potential economic, political, and social disruptions³¹. In this context, the Director-General of the World Organization for Animal Health, Monique Éloit, notes that "the Covid-19 pandemic is a clear warning that collaboration between sectors is absolutely essential for global health." Heiko Maas, the German Minister of Foreign Affairs, adds that Covid-19 painfully reminds us that the health of humans, animals, and the environment worldwide is closely interconnected. It emphasizes the need to keep in mind, to prevent future pandemics, that "no one is safe until everyone is safe" (UNEP, 2021).

The variety, unpredictability, and intensity of events underscore the importance of strengthening disaster risk governance for prevention, mitigation, preparation, response, and recovery (Mizutori, 2018). They also highlight the need for the adoption of effective concrete public policies, the implementation of new multidisciplinary approaches (such as the One Health procedure, for example), coordination and interaction between relevant sectors, and joint action and cooperation by various international actors.

4 DISRUPTIONS STEMMING FROM THE COVID-19 PANDEMIC ARE A FOCAL POINT WITHIN THE REALM OF INTERNATIONAL LAW

The Covid-19 pandemic constitutes a global natural disaster and a complex humanitarian emergency, considering that it: triggers a crisis of multiple aspects, proportions, and dimensions; brings about disruptive consequences significant enough to upset and affect the normal functioning of the entire global society and necessitates paramount international support.

International coordination on pandemics is managed by the World Health Organization (WHO) and the United Nations Office for the Coordination of

²⁹ The Minister for Europe and Foreign Affairs of France, Jean-Yves Le Drian, emphasizes that the COVID-19 pandemic, likely of zoonotic origin, underscores the close connection between human, animal, and environmental health (UNEP, 2021).

³⁰ Representatives of states and international organizations have gathered to launch a panel of high-level experts in One Health, aiming to improve the understanding of how diseases with the potential to trigger pandemics emerge and spread. The One Health approach recognizes the connections between human, animal, and environmental health, emphasizing the need for experts in multiple sectors. It also aims to consider the impacts of human activity on the environment and wildlife habitats, the procedures that increase pressure on natural resource bases, and the behaviors that lead to the loss of biodiversity and climate change, reinforcing that these behaviors can lead to the emergence of zoonotic diseases. Additionally, it will guide the development of a dynamic research agenda and formulate evidence-based recommendations for global, regional, national, and local actions (UNEP, 2021).

³¹ The transmission of diseases like Covid-19 between animals and humans (zoonoses) threatens economic development, animal and human well-being, and the integrity of the ecosystem (UN, 2021).

Humanitarian Affairs. For these agencies, the current situation is considered a "public health emergency of international concern." In this context, it is important to highlight that the pandemic implicates various realms of international law.

From the outset, international law proves fundamental to the global response to the pandemic. International law required states to take certain actions to detect and prevent the spread of the novel coronavirus. Some governments responded quickly and effectively, significantly reducing the impact on their populations. Others were not successful, and many exacerbated the situation by responding in ways that heightened the impacts on the most vulnerable populations, thereby violating obligations imposed by international law (Hathaway; Lim, Phillips-Robins & Stevens, 2021). Despite its contributions, there is a clear need for the adaptation, implementation, and strengthening of the international legal system as a tool for prevention, resilience, mitigation, and reparation, allowing humanity to better prepare for the next pandemic (deemed inevitable by scholars in the field). Indeed, humanity's responsiveness to global ecological risk stands as a crucial theme for the fate of the human species.

The project of articles on the protection of persons in the event of disasters by the United Nations International Law Commission³² (ILC) provides a framework of rights and responsibilities during disasters. While it presents significant deficiencies (gaps and limitations) in the specific context of pandemics, the project of articles provides legal support for the global response to the Covid-19 disaster. It is noteworthy that as a global plan to reduce disaster losses (an essential action for the success of the 2030 Agenda for Sustainable Development), the United Nations Member States adopted the Sendai Framework for Disaster Risk Reduction 2015-2030³³.

In this line of reasoning, one might even arrive at an "efficacy paradox", namely, admitting that the disaster will occur allows it to be avoided or significantly minimized in its effects. In other words, working with the concreteness of the magnitude of the risk and possible damages. This does not imply resignation or a shift of focus solely to the consequences of the disastrous event but serves as a means for the development and adoption of public and private policies capable of implementing preventive and mitigating measures proportional to the levels of probabilities (Carvalho, 2015, p. 90).

Disaster law provides means for managing the risk of vulnerability situations and assessing the potentially devastating effects capable of destabilizing a socio-environmental community (Kokke, 2020, p. 200). A relational concept to Bourdieu (2011, p. 27) allows identifying common traits in disasters, enabling the

³² The International Association of Professionals in Humanitarian Assistance and Protection (PHAP, 2021) explains that the United Nations International Law Commission, a specialized UN body responsible for studying and codifying international law, enhancing the framework for disaster response, developed the Articles on the Protection of Persons in the Event of Disasters in 2016.

³³ The Sendai Framework primarily focuses on prevention, aiming to recognize and neutralize disaster risks before they occur. Disaster risk reduction is a cross-cutting issue for all Sustainable Development Goals (SDGs), especially SDG 1 (eradication of poverty in all its forms and places). Disasters, which can undermine development gains achieved over decades, are major contributors to entrenched poverty in low- and middle-income countries attempting to recover from extreme weather events amplified by the effects of climate change (Mizutori, 2018).

configuration of a true cycle, a succession of phases that permeate the action of *homo faber* in society. The cyclical scenario occurs when the "paradox of efficiency" is triggered, initiating an entire preventive and reactive dynamic in the face of a catastrophic event. The law's role is to normatively function and set up institutions to act in the cycle of phases that follow when dealing with an environmental disaster, whether of natural or anthropogenic cause. We can thus speak of a "disaster cycle," implicated in risk management, involving the following stages: a) disaster risk mitigation; b) development of planning and execution of responses to the disaster and emergency situations generated; c) adoption of compensation and stabilization measures and programs; d) reconstruction of affected areas and lives, followed by new panels of execution and mitigation planning, with the reopening of the cycle (Carvalho & Damacena, 2013: 33). An institutional perspective can be added here. The disaster cycle fosters the ratification or restructuring of public and private institutions for an optimization framework in each of the phases (Kokke, 2020, p. 200).

The sequentiality of the cycle requires adaptation of legal measures that can provide a higher degree of effectiveness in each phase so that the legal system enables and streamlines the execution of tasks by agents in scientific or technical areas responsible for implementing abstract planning. In other words, the legal system can allow engineering, health surveillance, medicine, geology, ecology, among other sciences and techniques to act more effectively in potential or realized disaster risk situations (Kokke, 2020, p. 200-201).

Thus, the "stabilization process exercised by the Law must take place without due respect to procedures ending up hindering decision-making processes" (Carvalho, 2015, p. 43). This premise must always be considered in disaster cases, whether in the extrajudicial or judicial sphere. The principle of the provisionality of decisions or adaptability applies here, understood by Carvalho & Damacena (2013, p. 47) and Kokke (2020, p. 201) as the "epistemological realization that the future is uncertain and requires continuous adaptation of precautionary decisions in the management processes of environmental risks".

5 IN LIEU OF A CONCLUSION

The ability of humanity to respond to universal ecological risk is a crucial theme for the fate of the human species. It is essential for international actors to engage in a joint effort³⁴ to halt the spread of Covid-19, repair damages, restructure global society, and adopt prevention and resilience strategies in the face of the likelihood of similar episodes in the future.

Understanding threats, vulnerabilities, and disaster risks is increasingly necessary to confront these adverse events, mitigating their effects through the construction of a culture of prevention and resilience in communities and the protection of the human rights of affected victims. Therefore, one of the main

³⁴ "International cooperation is of paramount importance to control the outbreak and assist countries in managing the increasing number of cases" (Ozturk, 2020). According to the Articles of the ILC, the affected State and assisting actors have a duty to cooperate, including cooperation with intergovernmental organizations.

contemporary challenges is the reduction of vulnerability and the growth of resilience (Mantelli, 2018).

In the light of International Law, international cooperation is imperative for the prevention, preparation, mitigation, and response to disasters. This involves the development of monitoring systems³⁵ and health protection capable of detecting and responding to threats of communicable diseases, investments³⁶ in fundamental health protection infrastructure. Additionally, the duty of States to timely (prompt)³⁷ and comprehensive (complete) notification to the international community about a pandemic and not hindering³⁸ international assistance measures that deserves special attention.

6 REFERENCES

Assembleia Geral da Pensilvânia – AGP. *Código de Emergência do estado da Pensilvânia*. <http://www.legis.state.pa.us/cfdocs/legis/LI/consCheck.cfm?txtType=HTM&ttl=35&div=0&chpt=71§n=2&subsectn=0>.

Anderson, M. & Gerber, M. (2018). *Introduction to Humanitarian Emergencies*. Cambridge. http://www.cambridge.org/core/services/aop-cambridge-core/content/view/D2A8592F97497D7C786B4EF4B19E081F/9781107062689c1_1-8.pdf/introduction_to_humanitarian_emergencies.pdf.

Bioenfoco. One Health (2018): *Você conhece o conceito de saúde única?* Blog virtual bio em foco, Pinhais. <https://bioenfoco.com.br/noticia/one-health-conceito-saude-unica/>.

Birchler, A. (2020). Introduction and Legal Framework. Climate Change, Resulting Natural Disasters and the Legal Responsibility of States: an International Law Perspective. *Intersentia*. <http://www.cambridge.org/core/books/climate-change-resulting-natural-disasters-and-the-legal-responsibility-of-states/introduction-and-legal-framework/BA869F923C70C5A2A047B4ACC947811B>.

Bourdieu, P. (2011). *O poder simbólico*. Tradução de Fernando Tomaz. 15. ed. Rio de Janeiro: Bertrand Brasil.

Brasil. Decreto nº 10212 (2005). Promulga o texto revisado do Regulamento Sanitário Internacional, acordado na 58ª Assembleia Geral da Organização Mundial de Saúde. http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/D10212.htm.

³⁵ "Monitoring systems are the eyes of the healthcare system – without them, the healthcare system would be blind. You cannot address what you cannot see" (Lee, 2020).

³⁶ Andrew Lee (2020) emphasizes that "investment in health protection is analogous to an insurance policy – in good times, when it is rarely called upon, it may be deemed unnecessary by policymakers. But this is a dangerous misconception. Moreover, compared to other public health operations, health protection interventions are highly cost-effective"

³⁷ Alp Ozturk (2020) clarifies that the articles of the CDI do not explicitly establish the obligation to notify other states of an outbreak. He also recalls that the comments on the CDI articles emphasize that the types of cooperation listed do not create an additional obligation for affected and assisting states. He concludes that "the coordination of international relief actions and communications" cannot be considered a separate duty of notification, and the comments recognize that cooperation may occur in the context of a pre-existing obligation, as illustrated by the duty to notify in the articles on the prevention of transboundary harm arising from hazardous activities, adopted in 2001.

³⁸ The CDI draft articles do not expressly provide for the duty of third states not to hinder relief efforts. However, given the importance and necessity of international cooperation in response to disasters, the inclusion of the duty not to obstruct assistance is a pressing option for the legislative framework of international disaster law. The fact that the general duty of cooperation does not impose on states the specific obligation to provide assistance should not be construed as an impediment to the duty not to hinder relief measures. The duty not to obstruct international assistance applies to both the affected states and third states. Obstacles to relief efforts not only endanger human life in the state subject to sanctions or other restrictions but also increase the risk of the spread of Covid-19 to other states.

- Brasil. Ministério da integração nacional (2000). Secretaria de defesa civil. *Política nacional de defesa civil*. Brasília: Secretaria de defesa civil. <http://www.defesacivil.mg.gov.br/imagens/documentos/Defesa%20Civil/manuais/Pol%C3%ADtica-Nacional-de-Defesa-Civil.pdf>.
- Carvalho, D. W. & Damacena, F. D. L. (2013). *Direito dos desastres*. Porto Alegre: Livraria do Advogado Editora.
- Carvalho, D. W. (2015). *Desastres ambientais e sua regulação jurídica: deveres de prevenção, resposta e compensação ambiental*. São Paulo: Editora Revista dos Tribunais.
- Carvalho, D. W. (2020) A natureza jurídica da Covid-19 como um desastre biológico. *Revista Consultor Jurídico*. <https://www.conjur.com.br/2020-abr-13/delton-winter-natureza-juridica-covid-19-desastre-biologico2>.
- Crowel & Moring (2020). A Suprema Corte da Pensilvânia afirma o poder do governador de emitir ordem executiva COVID-19. *Crowel & Moring*. <http://www.crowell.com/NewsEvents/AlertsNewsletters/all/Pennsylvania-Supreme-Court-Affirms-Governors-Power-to-Issue-COVID-19-Executive-Order>.
- Dixit, P. (2020). Synergising International Public Health Law and International Disaster Law. *European Journal of Risk Regulation*. Published online by Cambridge University Press 2020. *European Journal of Risk Regulation*. <http://www.cambridge.org/core/journals/european-journal-of-risk-regulation/article/abs/synergising-international-public-health-law-and-international-disaster-law/4A131D382AEB34C2E8AA8E16613BC8A7>.
- Duffield, M. (1994). Complex Emergencies and the Crisis of Developmentalism. *IDS Bulletin* 25(4) *Institute of Development Studies*. <http://www.ids.ac.uk/download.php?file=files/dmfile/duffield254.pdf>.
- Early, J. R.; Nemsick, J. R. & Ray, E. (2020). Pennsylvania High Court Ruling May Have Far-Reaching Impact on Covid-19 Disputes. *Holland & Knight Alert*. <http://www.hklaw.com/en/insights/publications/2020/04/pennsylvania-high-court-ruling-may-have-far-reaching>.
- Ecycle (s/d). *Antropoceno: o que é e quais suas fases?* Available at: <http://www.ecycle.com.br/antropoceno/>.
- Fires, W. G. S. S. & Newby, L. L. P. (2021). New York Federal District Court Cites two Pennsylvania Supreme Court Cases When Recognizing Right to Invoke Force Majeure Provision in Light of the Coronavirus (Covid-19) Pandemic. *Weber Gallagher Simpson Stapleton Fires & Newby LLP*. <http://www.jdsupra.com/legalnews/update-new-york-federal-district-court-2807479/>.
- Fisher, D. (2012). The Future of International Disaster Response Law. *55 German Y.B. Int'l L.* 87. <http://heinonline.org/HOL/LandingPage?handle=hein.journals/gyii55&div=6&id=&page=>
- Gomes, E. R. B. & Cavalcante, A. C. S. (2012). Desastres naturais: perdas e reações psicológicas de vítimas de enchente em Teresina-PI *Psicologia & Sociedade*. 24 (3), 720-728. <http://www.scielo.br/j/psoc/a/wM9bV9vhYbkLfwHFBWT3CqB/?lang=pt#>.
- Guerra, S.; Tonetto, F. F. & Silva, L. S. S. O. International law and the principle of nonindifference in times of global pandemic of Covid 19: possibilities and challenges. *Revista Jurídica*, 5(62). <http://revista.unicuritiba.edu.br/index.php/RevJur/article/view/4937>.
- Hathaway, O. A.; Lim, P.; Phillips-Robins, A. & Stevens, M. (2021). *Covid-19 and International law*. <http://www.justsecurity.org/tag/covid19-and-international-law/>.
- Hathaway, O. A.; Lim, P.; Phillips-Robins, A. & Stevens, M. (2020). *COVID-19 and International Law Series: Introduction*. New York: Just Security Online Forum. <http://www.justsecurity.org/73304/covid-19-and-international-law-series-introduction/>.
- Hathaway, O. A.; Lim, P.; Phillips-Robins, A. & Stevens, M. (2021). The COVID-19 pandemic and international law. *Cornell International Law Journal*, 54(2). http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3815164_code240242.pdf?abstractid=3815164&mirid=1&type=2
- HFW. Covid-19 classified as a natural disaster by Pennsylvania Supreme Court; could this affect coverage litigation arising from Coviv-19? (2020) Holman Fenwick Willan LLP. *Insurance and reinsurance*. <file:///C:/Users/User/Documents/002134-HFW-COVID-19-Classified-as-a-Natural-Disaster-by-Pennsylvania-Supreme-Court-Could-this-Affect-Coverage-Litigation-Arising-from-COVID-19-June-2020.pdf>.
- IFRC – International Federation of Red Cross and Red Crescent Societies (2007). Annotations to the draft guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance. *International Federation of Red Cross and Red Crescent Societies*. <http://www.ifrc.org/PageFiles/125652/annotations.pdf>.

IFRC – International Federation of Red Cross and Red Crescent Societies (2021). Annotations to the draft guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance. *International Federation of Red Cross and Red Crescent Societies*. [http://disasterlaw.ifrc.org/sites/default/files/media/disaster_law/2021-02/Annotations%20to%20the%20Draft%20IDRL%20Gui delines.pdf](http://disasterlaw.ifrc.org/sites/default/files/media/disaster_law/2021-02/Annotations%20to%20the%20Draft%20IDRL%20Guidelines.pdf).

ILC – International Law Commission (2016). Report of the International Law Commission. Sixty-eighth session. *International Law Commission*. United Nations. New York. http://legal.un.org/ilc/reports/2016/english/a_71_10.pdf.

Interpol. Interpol report shows alarming rate of cyberattacks during COVID-19 (2020). *Interpol news and events*. <http://www.interpol.int/en/News-and-Events/News/2020/INTERPOL-report-shows-alarming-rate-of-cyberattacks-during-COVID-19>.

JDSUPRA. Desastre natural sem precedentes: uma atualização sobre a força maior na era Covid-19 (2021). *Jd supra legal News*. <http://www.jdsupra.com/legalnews/unprecedented-natural-disaster-an-3361921/>

Kahambing, J. G. (s/d). *Covid-19, natural vulnerability and zugzwang*. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7665650/>.

Kebriaeezadeh, A. & Batmanghelidj, E. (2020). As coronavirus spreads, Iranian doctors fear the worst. *Foreign Policy*. <http://foreignpolicy.com/2020/03/03/iran-coronavirus-spreads-sanctions-covid19-iranian-doctors-fear-worst/>.

Kokke, M. (2020). Desastres ambientais e o papel do Direito. Brasil, D. R.; Carvalho, D. W. & Silva, R. F. T. [orgs] *A emergência do direito dos desastres na sociedade de risco globalizada*. Belo Horizonte: Conhecimento Editora.

Lee, A. (2020). Wuhan novel coronavirus (Covid-19): why global control is challenging? *Elsevier Public Health Emergency Collection*. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7130979/>.

Leff, E. (2010). Imaginarios Sociales y Sustentabilidad. *Cultura representaciones sociales*. 5 (9), pp.42-121. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-81102010000200002&lng=es&nrm=iso.

Mackay, A. W. (2015). Anthropocene Epoch. *International Encyclopedia of the Social & Behavioral Sciences (2nd Edition)*. James D. Wright (Editor). Elsevier, <https://doi.org/10.1016/B978-0-08-097086-8.91039-0>.

Madhav, N., Oppenheim, B., Gallivan, M., Mulembani, P., Rubin, E. & Wolfe, N. (2017). Pandemics: risks, impacts, and mitigation. *Disease Control Priorities: Improving Health and Reducing Poverty*. 3rd edition. Jamison DT, Gelband H, Horton S, et al., editors. Washington (DC): The International Bank for Reconstruction and Development / The World Bank. <http://www.ncbi.nlm.nih.gov/books/NBK525302/>.

Mantelli, G. A. S. (2018). Dos desastres socioambientais ao direito: fatores aplicáveis e breve quadro jurídico. *Revista de Direito UFMS*, 4 (1), pp. 74 – 95 jan./jun. file:///D:/Downloads/4871-Texto do artigo-19744-1-10-20180727.pdf.

Medical Dictionary for the Health professions and nursing (2012). *Index case*. Farlex. <http://medical-dictionary.thefreedictionary.com/index+case>.

Mizutori, M. (2018). Economic Losses and Displacement Should Drive Disaster Risk Reduction Efforts. *UN Chronicle*. UN: [http://www.un.org/en/chronicle/article/economic-losses-and-displacement-should-dri ve-disaster-risk-reduction-efforts](http://www.un.org/en/chronicle/article/economic-losses-and-displacement-should-drive-disaster-risk-reduction-efforts).

New York, Southern District Court (2020). JN Contemporary Art LLC versus Phillips Auctioneers LLC. *US: District Court for the Southern District of New York*. Caso n. 1:2020cv04370. <http://docs.jus tia.com/cases/federal/district-courts/new-york/nysdce/1:2020cv04370/538318/75>.

NHSPI – National Health Security Preparedness Index (2020). *2020 Release*. http://nhspi.org/wp-content/uploads/2019/05/NHSPI_2019_Methodology.pdf.

NPHL – Network for Public Health Law (2020). Friends of DeVito v. Wolf. Overview. *Public health emergency: legal preparedness & response*. <http://www.networkforphl.org/resources/friends-of-devito-v-wolf/>.

Nussbaum, C. G. & Mason, C. M. (2020). Covid-19 pandemic is a natural disaster for purpose of a contractual force majeure provision, says Southern District of New York. Nixon Peabody LLP, *Commercial Litigation Alert*. [http://www.nixonpeabody.com/en/ideas/articles/2020/12/21/covid19-pandemic-is-a-natu ral-disaster](http://www.nixonpeabody.com/en/ideas/articles/2020/12/21/covid19-pandemic-is-a-natural-disaster).

OPAS – Organização Pan-Americana da Saúde (2021). *Homepage*. <http://www.paho.org/pt/brasil>.

OPAS – Organização Pan-Americana da Saúde (2021). *Implementação do Regulamento Sanitário Internacional*. <http://www.paho.org/pt/documentos/cd58inf1-implementacao-do-regulamento-sanitario-internacional>.

OPAS – Organização Pan-Americana da Saúde (2021). *Regulamento Sanitário Internacional*. Organização Pan-Americana da Saúde. <https://www.paho.org/pt/regulamento-sanitario-internacional-rsi>.

Ozturk, A. (2020). Covid-19: just disastrous or the disaster itself? Applying the ILC articles on the protection of persons in the event of disasters to the Covid-19 outbreak. *Insights*. 24 (6). Washington: American Society of International Law. <http://www.asil.org/insights/volume/24/issue/6/covid-19-just-disastrous-or-disaster-itself-applying-ilc-articles>.

Pennsylvania, Supreme Court (2020). *Friends of DeVito versus Wolf*. US: Supreme Court of Pennsylvania, Middle District. Caso n.68MM2020. <http://law.justia.com/cases/pennsylvania/supreme-court/2020/68-mm-2020.html>.

Pennsylvania, Supreme Court of Pennsylvania (2020). *Democratic Party versus Boockvar*. US: Supreme Court of Pennsylvania, Middle District. Caso n.133MM2020. <http://law.justia.com/cases/pennsylvania/supreme-court/2020/133-mm-2020-1.html>.

PHAP – International association of professionals in humanitarian assistance and protection (2021). *International disaster response law*. *Themes*. International association of professionals in humanitarian assistance and protection. [http://phap.org/PHAP/Sector_Monitoring/Themes/Law_and_protection/IDRL/PHAP/Themes/IDRL.aspx#:~:text=International%20disaster%20relief%20law%20\(IDRL,and%20impact%20of%20natural%20disasters](http://phap.org/PHAP/Sector_Monitoring/Themes/Law_and_protection/IDRL/PHAP/Themes/IDRL.aspx#:~:text=International%20disaster%20relief%20law%20(IDRL,and%20impact%20of%20natural%20disasters).

Pollock, A. & Sheehan, P. C. (s/d). *Unprecedented natural disaster: an update on force majeure in the Covid-19 era*. <http://www.jdsupra.com/legalnews/unprecedented-natural-disaster-an-3361921/>

PNUD (2015). *Os Objetivos de Desenvolvimento Sustentável*. <http://www.pnud.org.br/ods.aspx>.

Reliefweb (2008). *Reliefweb glossary of humanitarian terms*. http://reliefweb.int/sites/reliefweb.int/files/resources/4F99A3C28EC37D0EC12574A4002E89B4-reliefweb_aug2008.pdf

Revet, S. (s/d). Covid-19: a natural disaster? *Sciences Po*. <http://www.sciencespo.fr/en/news/news/covid-19-a-natural-disaster/4889>.

Seddighi, H. (s/d). *COVID-19 as a Natural Disaster: Focusing on Exposure and Vulnerability for Response*. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7492580/>.

UNDP – United Nations Development Programme (2020). *Home page*. <http://www.undp.org/>.

UNDP – United Nations Development Programme (2020). *Discussing human rights, rule of law and the renewed social contract in the COVID-19 reality*. http://www.undp.org/speeches/discussing-human-rights-rule-law-and-renewed-social-contract-covid-19-reality?utm_source=EN&utm_medium=GSR&utm_content=US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=EAIaIQobChMI9v2xv8fe8QIVlIKRCh2RsAbSEAAAYASAAEgJBvD_BwE.

UNDRR – United Nations Office for Disaster Risk Reduction (2021). *Homepage*. <http://www.undrr.org/>.

UNDRR – United Nations Office for Disaster Risk Reduction (2021). *Pandemic must serve as a wake-up call on human rights says Special Representative of the Secretary-General*. *News*. Statements and messages. <http://www.undrr.org/news/pandemic-must-serve-wake-call-human-rights-says-srsg>.

UNDRR – United Nations Office for Disaster Risk Reduction (2020). *What is the Sendai Framework for Disaster Risk Reduction? Implementing the Sendai Framework*. *United Nations Office for Disaster Risk Reduction*. <http://www.undrr.org/implementing-sendai-framework/what-sendai-framework>.

UNEP – United Nations Environment Programme (2021). *New international expert panel to address the emergence and spread of zoonotic diseases*. *Ecosystems and biodiversity*. Press release. <http://www.unep.org/news-and-stories/press-release/new-international-expert-panel-address-emergence-and-spread-zoonotic>.

UNISDR – United Nations Office for Disaster Risk Reduction (2021). *Homepage*. <https://www.undrr.org/>.

UN – United Nations Organization (2021). *Coronavirus information*. <http://www.un.org/en/coronavirus/information-un-system>.

USNLM – United States National Library of Medicine (2021). Health & disasters: understanding the international context. National Institutes of Health. *United States National Library of Medicine*. http://www.nlm.nih.gov/dis_courses/international/01-000.html.

WHO – World Health Organization (2021). *Coronavirus (COVID-19) Dashboard*. <http://covid19.who.int/>.

WHO – World Health Organization (2020). *Novel coronavirus (2019-nCoV) situation report 1*. http://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn%3d20a99c10_4.

WHO – World Health Organization (2021). Weekly operational update on COVID-19. *Emergency Situational Updates*. Issue n. 63. <http://www.who.int/publications/m/item/weekly-operational-update-on-covid-19---12-july-2021>.

Yuval, S. (2021). The covid-19 pandemic crisis and international law: a constitutional moment, a tipping point or more of the same? Makane Mbengue and Jean d'Aspremont (eds), *Crisis Narratives in International Law* (Brill), *Hebrew University of Jerusalem Legal Research Paper*, 21 (9), <http://dx.doi.org/10.2139/ssrn.3808945>.