
Cleaved International Law: Exploring the Dynamic Relationship between International Climate Change Law and International Health Law

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INTRODUCTION

The field of international law often is taught and thought of as a group of disconnected substantive subfields, each with its own epistemic community. These specialized subfields range from international human rights law to the law of the sea, from international trade law to collective security law. Examples where subfields conflict with each other and separate examples where subfields complement each other have led two camps of commentators over the past decade to comprehensively define international law's nature as either united or fragmented in a binary fashion. Even the United Nations' International Law Commission established a study group to explore this topic, which concluded in 2006 after over four years of study that international law is fragmented due, in part, to the

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collision of various branches of international law.¹ Efforts of both camps to articulate a complete theory that largely ignores or severely downplays the examples of the other camp creates disturbing anomalies, or rather antinomies, which “requires a reexamination of our fundamental premises” if one assumes the accuracy of one of the two camps.² This article, which reflects the core theme of a forthcoming monograph by the author,³ does not attempt to definitively resolve this perennial debate over the nature of international law in such an all-or-nothing binary fashion. Rather, it takes a more nuanced, middle-ground approach by exploring how two subfields of international law – here, international health law and international climate change law – *simultaneously* conflict with and complement each other.

Some commentators have asserted that advances in our understanding of law will come from the cross-fertilization of ideas between different subfields.⁴ As the late Hans Kelsen, professor at The Fletcher School of Law and Diplomacy, asserted,

It is impossible to grasp the nature of law if we limit our attention to the single isolated rule. The relations which link together the particular rules of a legal order are also essential to the nature of law.⁵

This idea sparked the creation of a new approach to thinking about the perennial and often dialectic debate over the unified or fragmented nature of international law – an approach that has been labeled *cleaved* international law.⁶ The word “cleaved” here is an auto-antonym that concurrently can mean “to join together” (as in to cleave to one’s spouse) and “to break apart” (as in to cleave a branch from a tree trunk). This term

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is not used to embody a static relationship between these opposing forces. Instead, this term captures an approach to international law that demonstrates how different branches of international law simultaneously conflict with and complement each other on the horizontal level. This approach adopts comparative law’s essentially intuitive methodology of evaluating two bodies of law in light of each other.⁷ While there can be many purposes for such comparison,⁸ this approach focuses on the purpose of knowledge development. This approach presents a deformalized, pragmatic perspective to international law that embraces the contradictions and general messiness that exist between the various parts. As the late master comparativist Patrick Glenn explained,

There is nothing in the word [com-paring] that suggests that the result of the process is somehow terminal, in ensuing uniformity, or ensuing disastrous conflict. . . . Com-paring thus involves an enduring process of peaceful co-existence (in spite of difference, in spite of potential conflict), in a way which ensures not uniformity but ongoing diversity.⁹

It is this middle-ground nature of comparison that makes it a natural fit with cleaved international law.

This article goes on to explain the underlying relationship between climate change and human health, describe international health law and international climate change law as branches of international law, and explore how these branches of international law simultaneously conflict with and complement each other in the context of the United Nations Framework Convention on Climate Change and the Paris Climate Change Agreement. While it is difficult to classify the level of interaction between these two branches of international law as “extensive,” there is enough interaction to suggest to the reader how “cleaved” aptly describes their relationship.

THE UNDERLYING RELATIONSHIP BETWEEN CLIMATE CHANGE AND HUMAN HEALTH

The overwhelming body of scientific evidence adheres to the view that climate change is a phenomenon caused by human interference with the natural environment.¹⁰ The fact that unpredictable climatic variations impact not only the natural system but also the anthropological system is key to devising solutions to the problem, since concern for human wellbeing is an essential motivation for finding an adequate response in a relatively short period of time. This part explores the influence of anthropogenic climate

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change on the health of human populations, which acts as the foundation for the dynamic interaction between international climate change law and international health law.

To begin, climatic changes have both “cause” and “effect” implications for human health. On the one hand, the very activities that contribute to rising greenhouse gases in the atmosphere bring about problems such as air pollution, water and land contamination, and ecosystem collapse, which, in turn, further lead to adverse health consequences.¹¹ To give an

example, according to the World Health Organization (WHO), one in eight deaths world-wide results from indoor or outdoor air pollution, totaling seven million deaths each year.¹² At the same time, the consequences of climatic changes themselves lead to phenomena such as extreme weather events like droughts, floods, exacerbated storms, and rising sea levels, which have direct and indirect repercussions on human health. The World Bank estimates that due to the uneven changes in irrigation patterns resulting from climate change, crop yields are likely to decline by at least five percent by 2030, a figure that could increase to thirty percent by 2080.¹³ This is certain to place an increased strain on already impoverished regions and, coupled with the pressures of a growing world population, likely would lead to increased malnourishment and a variety of associated diseases that affect local inhabitants, as well as perhaps increased insecurity and armed conflict. To exacerbate an already bleak situation, the World Trade Organization estimates that 80 percent of the people in developing countries rely on plant life as their main source of healthcare.¹⁴ Therefore, access to essential medicines for affected individuals will suffer on account of the impact of climate change on biodiversity and diminishing natural resources. A further estimate by the World Health Organization is that, in the period between 2030 and 2050, a quarter of a million deaths will occur on account of climate change and its related impact.¹⁵

An alarming trend, reflecting the disproportionate effect of climate change on different segments of the world's population, is that more than

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half of climate-change victims come from less industrialized and developing countries, even though people from low-development regions account for 11 percent of all individuals affected by climate change.¹⁶ This observation contributes to the view that the gravest health consequences of climate change are likely to be experienced by the most vulnerable, such as the elderly, the young, and the physically feeble, as well as people who live in already fragile regions of the world and least developed countries, aggravating

the "health equity gap within and between countries."¹⁷ Climate change is likely to place an increasing strain on these regions' already weakened national health and social security systems, since the number of emergen-

cies and the proportion of individuals requiring medical assistance as a result of climate-induced disasters is projected to escalate significantly.¹⁸

These findings are highlighted in the latest assessment report of the Intergovernmental Panel on Climate Change, which noted with a high degree of confidence the following: “Throughout the 21st century, climate change is expected to lead to increases in ill-health in many regions and especially in developing countries with low income, as compared to a baseline without climate change,”¹⁹ in addition to the prognosis that “[u]ntil mid-century, projected climate change will impact human health mainly by exacerbating health problems that already exist.”²⁰ Environmental degradation and concomitant human-induced climate change combined represent a significant threat to the goals of achieving sustainable development, including the objective to “[e]nsure healthy lives and promote well-being for all at all ages.”²¹

The fact that climate change is inextricably linked to the global hydrological cycle means that even small variations in the world climatic system could upset the delicate natural balance that helps sustain life on Earth. For example, changes in weather patterns frequently are associated with extreme water-related weather events such as devastating floods in already flood-prone regions and long-lasting droughts in drier regions.²² This, in turn, limits the availability of drinking water, as well as water for irrigation and sanitation purposes in drought-stricken areas, coupled with exacerbated floods that destroy homes,

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 crops, and livelihoods in monsoon- and flood-prone locations. The connection between such water-related climate events and deteriorating conditions for human health seems obvious. Such a connection was recognized in Chapter 18 of Agenda 21, the UN’s sustainable development action plan, promulgated

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 at the UN Conference on Environment and Development held in Rio de Janeiro, Brazil, in 1992.²³ The chapter makes nineteen references to “health” and stipulates that “[s]afe water-supplies and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty.”²⁴ The document reiterates the relationship between climate change and its water-related impact on socio-economic systems:

The [Second World Climate] Conference recognized that among the most important impacts of climate change were its effects on the hydrologic cycle and on water management systems and, through these, on socio-economic systems.²⁵

In this respect, the U.S. National Oceanic and Atmospheric Administration has provided a useful illustration of the complex relationships between climate change, shifting weather patterns and their impact on various aspects of human health:

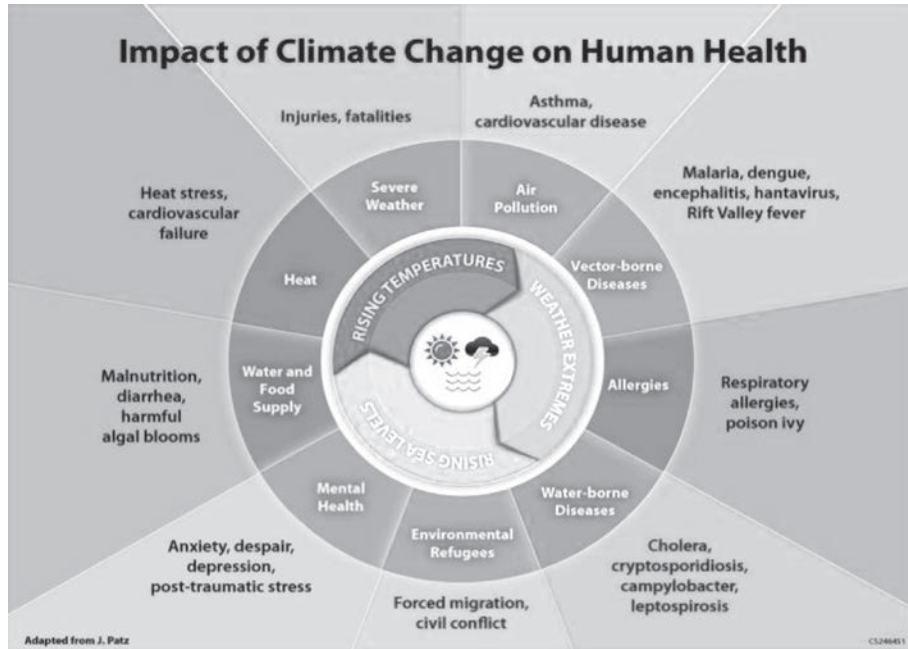


Figure 1 – See U.S. National Oceanic and Atmospheric Administration, *Impact of Climate Change on Human Health*, at <https://toolkit.climate.gov/image/505> (last visited Dec. 27, 2015) (adapted from Andy Haines & Jonathan A. Patz, Health Effects on Climate Change, 291 *J. Am. Med. Ass'n* 99, 99-103 (2004)).

The U.S. Center for Disease Control and Prevention accordingly maintains that climate change constitutes a threat originator and a threat multiplier for human health, which means that climate change not only creates vulnerabilities to health and wellbeing, but it also magnifies existing health hazards.²⁶ The fact that health is featured, on par with environmental sustainability, education, and per capita incomes, as one of the main indicators of human wellbeing under the Human Development Index shows the inter-related nature of the issues and factors that contribute to human welfare.²⁷

While it is tempting to conclude that this connection between health and climate change means that international climate change law and inter-

national health law are inseparably connected, the connection must be made more explicit, which is the purpose of the following part.

INTERNATIONAL HEALTH LAW AND INTERNATIONAL CLIMATE CHANGE LAW

This part provides a brief definition of international health law and international climate change law in order to clearly identify rules and principles from the realm of international law that this article addresses. In particular, this part explores how these two branches of international law conflict with and complement each other when tackling an integrated challenge such as climate change alleviation, as reflected in the 2015 Paris Climate Change Agreement. This first requires, however, an explanation of what constitutes a branch of international law.

Branches of International Law

Also referred to as “special regimes,” branches of international law can be identified through the recognition of related primary rules, secondary rules, or the subjects targeted by these rules.²⁸ This article does not see the subjects of international law as changing significantly depending on the branch involved, given that states represent the main holders of rights and obligations under the theoretical approach adopted in this article.²⁹ This article’s explanation of “branch” focuses on primary rules, inasmuch as these are a sufficient basis to distinguish between different bodies of law.³⁰ According to Hart, primary rules are those rules pursuant to which human beings are required to do or abstain from doing certain actions.³¹ In other words, primary rules are duty-imposing rules (D-laws),³² such as criminal laws that prohibit murder, robbery, and trespassing,³³ as well as prohibit speeding.³⁴ The categorization of “branches” of international law may occur by placing like components of international law – “at least in their outward appearance, similar conditions of life, established on a uniform plane”³⁵ – under the same banner. While the criterion to group components of international law into branches or smaller subsets of the entire system ostensibly is straightforward, the practice of actually doing so generates a range of answers as to the number of branches and the general nomenclature of the system. Therefore, this article recognizes the possibility and even probability that the descriptions of international climate change law and international health law contained in this part are not mutually exclusive, which fits perfectly with the notion of cleaved international law.

International Health Law

International health law began in 1851 with the inaugural International Sanitary Conference, convened in response to the cholera outbreak in Europe around that time.³⁶ As international trade and the related notion of globalization have increased since then, so too has the need for international cooperation in controlling such epidemics, which started and continued with the treaties concluded in the context of the regular international sanitary conferences prior to the Second World War.³⁷ International health organizations have arisen over the years to monitor progress in the fight against infectious diseases, with the World Health Organization being the dominant organization in the UN era.³⁸ Given international health law's strong start in treaty law, it should come as no surprise that international health law usually is seen as narrowly including agreements between states that relate to health, with the main sources of law being the International Health Regulations and the Framework Convention on Tobacco Control.³⁹ Given the role of

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primary rules in defining a branch of international law, as explained in part III(A) above, it might be enough to say that international health law involves all rules and principles that regulate interstate behavior with regard to health.

With this broad definition of international health law, it is possible to find international health law sprinkled throughout other branches of international law, including international human rights law and interna-

tional environmental law.⁴⁰ Two examples are noted here. First, health is included as a predominant concern in the very definition of "environment," provided for in the 1991 Convention on Environmental Impact Assessment in a Transboundary Context, where "environment" is seen as encompassing:

*human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors . . . [and] cultural heritage or socio-economic conditions resulting from alterations to those factors.*⁴¹

The connection between health and environmental damage also is emphasized in one of the most important environmental principles in exist-

tence, namely the “Polluter Pays” principle,⁴² which stipulates that perpetrators of environmental harm should bear the resulting costs on “*human health*, environmental, natural resource, social, and cultural harms.”⁴³

Second, the link between human rights protection and environmental degradation has been recognized by numerous human rights courts due to the likelihood that environmental instability should impinge on a multitude of human rights, such as “the rights to life, *health*, property, privacy, the collective rights of indigenous peoples to their ancestral lands and resources, and *the right to a healthy environment*.”⁴⁴ This lends weight to the observation that a deteriorating environment is set to significantly impact the enjoyment of a variety of specific health-related human rights, beginning with the right to life, liberty, and the security of person,⁴⁵ the right to food,⁴⁶ the right to subsistence, including an adequate standard of living, health, and well-being,⁴⁷ and the right to health itself.⁴⁸

Regardless of where international health law can be found, commentators have seen it as overwhelming evidence of states’ willingness to “[bind] themselves to a common set of rules”⁴⁹ However, the relatively low number of such norms supports a different narrative. The soft-law status of these norms emphasizes this alternative narrative.⁵⁰ For example, while the World Health Assembly has had the power to create and adopt treaties dealing with health under the WHO Constitution,⁵¹ it has failed to do so, at least until the Framework Convention on Tobacco Control.⁵² The limited number of binding regulations that the World Health Assembly has adopted under WHO Constitution Articles 21 and 22, as well as their limitation essentially to reporting,⁵³ likewise supports an alternative narrative. This alternative narrative is reflected in Jennifer Ruger’s writings, where she explains why international health law has remained in its immature stages: “[A] lack of normative theory has left the field without a basis for justice or common ground on the ethics and governance of threats to global health,” and “research to date has neglected normative problems,”⁵⁴ which appears to be the more accurate or intuitively more compelling narrative.

Some commentators conflate international health law and global health law.⁵⁵ However, it is clear that global health law is much broader than international health law inasmuch as it includes national and local laws that relate to health and that provide rights and duties to non-state actors.⁵⁶ This article focuses on international health law, given its focus on international law, as opposed to national or transnational law. The following section describes international climate change law as a branch of international law.

International Climate Change Law

The idea of international climate change first appeared in a book by Barbara Ward and René Dubos entitled *Only One Earth*, which was published before the 1972 United Nations Conference on the Human Environment in Stockholm to help start the conference discussions on climate.⁵⁷ In particular, Ward and Dubos described the problems associated with a two-degree-Celsius increase in temperature “which might set in motion the long-term warming-up of the planet.”⁵⁸ However, it took some time for the international community to actually start paying attention to international climate change issues, with the UN General Assembly eventually adopting a resolution in 1989 that identified climate change as a “common concern of mankind.”⁵⁹ It took yet another six years to establish the foundation of international climate change law with the 1994 entry into force of the United Nations Framework Convention on Climate Change,⁶⁰ with the 1997 Kyoto Protocol and the recent Paris Climate Change Agreement further adding to the substance of this branch of international law.⁶¹ Somewhat surprisingly, commentators started to use the phrase “international climate change law” only in 2004,⁶² with the branch’s status being solidified arguably in 2016 with the publication of *The Oxford Handbook of International Climate Change Law*.⁶³

As with global health law, there has been increasing interest in the past few years in the national laws that relate to climate change.⁶⁴ However, this article focuses only on *international* climate change law, as opposed to national or transnational climate change law, inasmuch as the former is a branch of international law.

International climate change law focuses on the international regulation of greenhouse gas emissions (mitigation) and the global community’s response to already occurring climate change (in the form of climate change adaptation).⁶⁵ This is done in a variety of ways. The purpose of this part of the article is not to exhaustively catalogue and analyze all the ways for regulating greenhouse gas emissions and adopting adequate adaptation measures, but rather to provide a brief overview in order to understand how these branches of international law interact. To begin, the United Nations Framework Convention on Climate Change represents the main international climate change treaty. The Framework Convention remains the overarching instrument for tackling climate change and its impact, and sets in place the overall guidelines and objectives for doing so. Since it is a framework convention, this instrument of international law intentionally has been left broad and subject to detailed elaboration in the numerous

protocols and agreements that have followed its conclusion. Article 2 of the Framework Convention conveniently summarizes its chief objective as “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”⁶⁶ The core of the Framework Convention includes a number of key principles that contribute to the implementation of the Framework Convention’s objectives – namely, the precautionary principle,⁶⁷ the principle of sustainable development,⁶⁸ the principle of cost-effectiveness,⁶⁹ and the principles of equity and common-but-differentiated responsibilities.⁷⁰ This means that a number of considerations regarding economic, developmental, and sustainability concerns are inextricably intertwined within the web of international climate change law, which go beyond greenhouse gas reduction and climate adaptation factors. Furthermore, the Framework Convention makes the important distinction between “all parties,” “Annex I parties,” “Annex II parties” and “non Annex parties” with respect to different countries’ levels of commitment. For example, the obligations of “all parties” (including both developing and developed countries) promulgated in Article 4.1 relate to duties to provide national greenhouse gas inventories, adopt national and regional programs to mitigate climate change, promote sustainable development, enhance the conservation of greenhouse gas sinks, and improve adaptation capacities, among other things.⁷¹ The obligations of Annex I parties featured in Article 4.2 require states listed in the Annex to develop national policies to mitigate climate change, take the lead in the resolution of the climate change issues and report with regard to their obligations.⁷² The duties of Annex II parties include giving support to developing countries, mainly in the form of financial and technical assistance,⁷³ as well as to assist poorer states in meeting their adaptation costs.⁷⁴ The Framework Convention allows a degree of flexibility with regard to economies in transition in implementing their commitments.⁷⁵

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As already mentioned, the Framework Convention intentionally has been left broad, which necessitates the adoption of subsequent instruments and protocols that provide more precise rules regarding parties’ obligations and specific commitments. The Kyoto Protocol is one such

example, which was designed to aid in the realization of the Framework Convention's goals by requiring states to undertake specific, quantified greenhouse gas emissions reductions, starting in 2008. A key characteristic of the Kyoto Protocol is that it established three flexible mechanisms to aid in the implementation of its objectives, which are the Joint Implementation Mechanism,⁷⁶ the Emissions Trading Mechanism,⁷⁷ and the Clean Development Mechanism.⁷⁸ However, the Kyoto process largely can be deemed a failure because it only imposed obligations on economies in transition and developed countries in Annex I, which meant that rising developing countries' emissions were not included under the scope of the international climate change regime.⁷⁹ The result was discontent among some developed-country parties, particularly the United States and Canada, which refused to ratify the Protocol or withdrew their participation, thereby shaking the very foundation of the international climate change regime. The U.S. refusal to join the Kyoto Protocol has caused considerable frustration over the years.⁸⁰

However, optimism returned in 2013 when U.S. President Barack Obama expressed his intention to seek a new agreement on reducing greenhouse gas emissions that could be concluded during his time in office.⁸¹ This new agreement eventually became the 2015 Paris Climate Change Agreement, which was concluded well before the end of his second term. The Paris Climate Change Agreement has been designed as an instrument that functions within the Framework Convention process, with the objective of "enhancing the implementation of the Convention" and "aim[ing] to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty."⁸² Unlike the Kyoto Protocol, the Paris Climate Change Agreement is not a top-down international instrument, but rather provides for voluntary, bottom-up national emissions reductions pledges submitted by each party, which are known as Nationally Determined Contributions, with a view to avoiding a Kyoto-type political stalemate. The Paris Outcome documents aim, as far as the international legal process allows, to achieve the goal of climate change abatement and adaptation in a more holistic and well-rounded manner than their predecessors. This is demonstrated in part by the text's emphasis on broader principles such as sustainable development (mentioned fourteen times), equity (referred to six times), and climate change justice (mentioned in the Agreement's preamble), among other things.⁸³ High importance also has been placed on poverty eradication, which has been absent from previous climate change agreements⁸⁴ and which attests to the inseparability of the issues of poverty alleviation and

climate change. Another commendable aspect of the Paris Climate Change Agreement is its emphasis on continuous monitoring and review, as well as the gradual updating of parties' commitments in light of their national circumstances.⁸⁵ Reviews every five years of parties' commitments are to take place starting from 2023, which will help evaluate the implementation of commitments over time and serve as a benchmark in updating subsequent Nationally Determined Contributions.⁸⁶ Perhaps due to discouragement over the perceived failure of the Kyoto process, the 2015 Paris Outcome adopts a "name and shame" – or rather "name and encourage" – voluntary emissions reductions strategy, as opposed to a top-down, enforcement-focused approach.⁸⁷ This approach arguably helps ensure flexibility and adaptability in the international climate change regime that further promotes the dynamic nature of an international climate change law, which the Paris Outcome has come to embody.

The above analysis demonstrates the non-static and complex nature of international climate change law. Indeed, this is an area where a multitude of socio-economic, political, and legal considerations intersect and influence each other. The most recent effort at climate change abatement in Paris illustrates that a more nuanced picture can be painted of the international climate change legal process, which extends beyond the Framework Convention and its related instruments. Therefore, it is arguable that the international climate change regime could be seen to include a number of closely related instruments, such as the Sustainable Development Goals, which were adopted in September 2015 to replace the Millennium Development Goals,⁸⁸ the Addis Ababa Action Agenda on financing for development,⁸⁹ and the Sendai Framework for Disaster Risk Reduction, which was adopted at the Third UN World Conference on Disaster Risk Reduction in March 2015.⁹⁰ Even though not strictly legally binding, these international legal provisions bear close relevance to the climate change process and should be taken into account in a holistic examination of its related impact.

INTERACTION OF INTERNATIONAL CLIMATE CHANGE LAW AND INTERNATIONAL HEALTH LAW

International health law and international climate change law simultaneously interact in a conflicting and complementary manner in the United Nations Framework Convention on Climate Change and the recently concluded Paris Climate Change Agreement. This part focuses on these interactions.

United Nations Framework Convention on Climate Change

International health law and international climate change law interact in the United Nations Framework Convention on Climate Change in a number of ways. These two branches of international law interact in the very first article of the Framework Convention, which emphasizes the importance of minimizing the adverse effects of climate change on “natural and managed ecosystems or on the operation of socio-economic systems or on *human health* and welfare.”⁹¹ Article 3(1) of the Framework Convention goes on to state, “The Parties should protect the climate system for the benefit of present and future generations of humankind.”⁹² This provision implies that international climate change law necessarily functions for the protection of humans and

..... their wellbeing, and this unavoidably includes the protection of human health. Two other resolutions that tackle the interplay between climate and health are the World Health Assembly Resolution WHA/61.R19 and Executive Board Resolution EB124.R5, which request the World Health Organization to “develop capacity to assess the risks from climate change for human health and to implement effective response measures,” as well as to help member states with “awareness raising, partnerships, evidence, and health system strengthening.”⁹³ All of these instruments emphasize the complementary nature of these branches of international law.

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At the same time, these two branches of international law can be seen as conflicting in light of the following two provisions. First, Article 3(4) of the Framework Convention emphasizes the need to promote sustainable development as well as to “tak[e] into account that economic development is essential for adopting measures to address climate change.”⁹⁴ Second, Article 4(f) of the Framework Convention specifies that climate change should be taken into account:

*to the extent feasible, in [state parties’] relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change[.]*⁹⁵

These two provisions are formulated in a rather open-ended and ambiguous manner, leaving a large amount of discretion to state parties when determining the exact extent of their commitments. For example, the initial phrase “to the extent feasible” points to the fact that Article 4(f) is not unconditional or strictly prescriptive, but rather allows room for significant flexibility and even non-compliance.⁹⁶ Moreover, health is placed as a relevant consideration next to the economy and the quality of the environment. While these three factors do not necessarily diverge, they often are seen as conflicting.⁹⁷ In particular, economic priorities frequently undermine the needs of the natural environment as well as those of public health protection.⁹⁸ For example, concerns over rising unemployment and the loss of a state’s competitive advantage regularly sit at the heart of prolonging environmentally unsustainable practices, which not only exacerbate climate change, but also lead to further deterioration of health conditions due to air, land, and water contamination, among other factors. This has been the case in China and other developing economies that have prioritized economic development above human health concerns, as evidenced by the prolonged episodes of air pollution and persistent environmental degradation in the country.⁹⁹

Putting economic considerations at the heart of international climate change law has so far compromised both environment- and health-related goals. The level of greenhouse gases in the atmosphere has increased by 36 percent since 1990,¹⁰⁰ when the international climate change law started to gain momentum, as opposed to actually declining, which is the ultimate goal of the regime. The Kyoto Protocol similarly places great reliance on market forces to achieve the required emissions reductions, which largely has proven inadequate for the goals the Protocol set out to achieve.¹⁰¹ Indeed, anthropogenic climate change has resulted in millions of annual climate-related casualties, with the number projected to increase significantly over the coming years unless more dramatic steps are taken.¹⁰² Therefore, it is arguable that reconciling these three factors – namely the economy, health protection, and the environment – is needed for achieving sustainable development and winning the battle against climate change. However, as the following sections show, subsequent international climate change treaties have done little to reconcile these three factors.

Putting economic considerations at the heart of international climate change law has so far compromised both environment- and health-related goals.

Paris Climate Change Agreement

The most recent international effort that aims to bring climate change to a halt and alleviate its impact on humans is the 2015 Paris Climate Change Agreement, which was concluded at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change. The Agreement provides a single reference to human health, which appears in the preamble:

Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples ...¹⁰³

This provision makes explicit the complementary connection between international climate change law and international health law in this most recent context, even if minimal.

The following provision from the preamble further refers to an integrated approach to tackling climate change, although without expressly mentioning health:

Recognizing that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires the widest possible cooperation by all countries, and their participation in an effective and appropriate international response, with a view to accelerating the reduction of global greenhouse gas emissions.¹⁰⁴

However, this emphasis on cooperation and a more holistic approach to addressing the threat of climate change for human and natural systems could fall short when considering the need for concrete implementation and commitments on behalf of state parties. The difficulty of achieving an adequate response from the international community regarding common problems such as climate change and international health protection stems from the fact that adaptation to already occurring climate change is a multifaceted, interrelated process.¹⁰⁵ Indeed, it has been noted that “many adaptation policies are embedded in development policies, general planning policies, risk-reduction and disaster management policies, water policies, *health policies* etc., making them more difficult to identify.”¹⁰⁶ Therefore, international health protection and climate change adaptation are closely connected because, for human systems to effectively advance and adjust to pervasive global climatic changes, these systems would certainly need increased resilience to the negative consequences from climate change.

Unfortunately, the state parties failed to include further references to human health within the substantive body of the Paris Climate Change

Agreement, as had been planned in previous drafts.¹⁰⁷ The relationship between climate and health policies nevertheless is underscored by paragraph 109 of the Draft Decision to the Paris Agreement, which acknowledges the mutual benefits that can be realized by following a coherent climate change mitigation plan: “[The Conference of the Parties] *recognizes* the social, economic and environmental value of voluntary mitigation actions and their co-benefits for adaptation, *health* and sustainable development.”¹⁰⁸ Somewhat surprisingly, this Draft Decision actually is part of the overall package that represents the Paris COP21 “Outcome,” which aims to supplement the goals of the actual Agreement and pave the way for the parties to implement the Paris objectives before the Agreement comes into force.¹⁰⁹ The decision presumably retains the label “draft” simply because the Paris text still has to be officially opened for signature to the parties in April 2016.¹¹⁰ In other words, it is not as though the language of the draft decision that relates to the relationship between climate change and health will change.

In terms of realizing the objective of health protection, it is arguable that the Paris Climate Change Agreement could have provided more in terms of explicitly stating that particular health-related goals have to be fulfilled, including reducing the number of climate change casualties that occur each year, halting the spread of climate-related infectious and vector-borne disease, as well as improving air, land, and water quality, which are all intricately connected to climatic change. Moreover, when taking into account a crucial aspect of implementing international climate change treaties – namely, the provision of climate finance – the text of the Paris Climate Change Agreement does not allocate any portion of its funding sources to specifically managing health-related issues, which could lead to a favoring of climate change issues over health issues over time. The failure to incorporate these types of health-related provisions into the Paris Climate Change Agreement can be seen as creating a type of conflict between international climate change law and international health law.

Of course, international legal instruments seldom, if at all, have included any concrete measures for realizing the rights associated with international health law in light of intensifying climate change. This might be partially attributed to the fact that health ministries frequently are under-represented during international negotiations of international climate change instruments. It is worth pointing out that the tendency of different, but at the same time inter-related, issues to be dealt with in isolation from each other is not confined to the subfields of health and climate change. Yet, it must be acknowledged that some significant progress has been made in this regard during COP21 since the Draft Decision

accompanying the Paris Climate Change Agreement places an increased emphasis on pursuing an integrated, coherent approach to tackling the issue of climate change through promoting enhanced cooperation between

The failure to incorporate these types of health-related provisions into the Paris Climate Change Agreement can be seen as creating a type of conflict between international climate change law and international health law.

..... different organizations, institutions, and areas. For example, the notion “synergy” is mentioned three times in the text, particularly with reference to capacity building¹¹¹ and pre-2020 adaptation plans.¹¹² This is valuable in ensuring that any internal conflict within the international climate change regime can be resolved with limited inconsistencies and that solutions can be intertwined within the regime itself. Even though not explicitly related to international health protection *per se*, it

is arguable that these provisions represent a commendable step in paving the way towards a holistic climate change framework, which, if appropriately executed, could result in immense benefits for the closely connected issue of improving life expectancy and health standards.

CONCLUSION

This article has presented a new model for understanding the nature of international law and moving beyond the interminable unity-versus-fragmentation debate. In essence, cleaved international law calls for an acknowledgment that the unit-based division of international law into either binaries or categories relies on artificial constructs, created by theorists to lighten the cognitive load from non-categorical thinking by reducing concepts that actually belong on a spectrum into mutually exclusive categories. Such reduction of the complex whole into mutually exclusive categories should be done with the knowledge that this is an approximation of the truth, just as it must be remembered that calculus involves an *approximation* of the area under a curve using mutually exclusive rectangles of space. These types of thought experiments stop being useful when the categories become reified, with the entire binary debate over the unity or fragmentation of international law showing the dangers that can result when one forgets that the constructs are mere approximations of the truth. This cleaved international law approach represents an invitation to move beyond these simplifying assumptions to make room for both perspectives

to co-exist in the field. At the same time, this approach recognizes the importance of categorical perspectives inasmuch as it can ease comparison and help develop thinking on a topic. The aim of this article has been to suggest to the reader how international health law and international climate change law simultaneously conflict with and complement each other, with a deeper understanding of cleaved international law and its application to other branch pairings being reserved for the forthcoming monograph.

Admittedly, the interaction between international health law and international climate change law has been limited so far, unlike the other branch pairing featured in the monograph. As alluded to in Part IV above, there is no shortage of guidance coming from a variety of international organizations on how the interaction between international health law and international climate change law can increase in the future, thereby increasing the potential usefulness of this approach in trying to understand the relationship. For example,

International health law and international climate change law simultaneously conflict with and complement each other...

.....
 the World Health Organization advocates a better integration of health concerns into states' energy and climate change policies,¹¹³ stating that “[c]limate change will be the defining issue for health systems in the 21st century, interacting with all social determinants of health.”¹¹⁴ The World Health Organization also underscores the negative economic impact, in addition to the health impact, of direct and indirect fossil fuel energy subsidies and externalities, which accounted for a staggering USD 5.3 trillion in 2015.¹¹⁵ Adequately pricing harmful energy sources, according to the World Health Organization, will result in both economic and health improvements.¹¹⁶ What is more, paying the true cost of carbon-intensive energy is estimated to reduce outdoor air pollution casualties by nearly one-third and cut greenhouse gas emissions by more than 20 percent.¹¹⁷ In this connection, introducing an adequate national carbon price is believed to have the potential of leading to significant economic gains, which could subsequently be reinvested in publicly beneficial projects.¹¹⁸ The initial upfront investments for climate change mitigation measures could be balanced by the improvements to public health, which would occur with almost immediate effect, as opposed to the more gradual positive impact on reducing climate change itself.¹¹⁹ Therefore, the integration between health and climate policies could strengthen incentives for action and help tackle one of the most persistent obstacles to addressing climate change – namely,

the lack of adequate financial resource mobilization.¹²⁰ Building on the efforts of various international and regional health-related instruments and declarations,¹²¹ the World Health Organization should recommend the strengthening of health sector participation in climate negotiations, make greater use of health impact assessments and more comprehensive cost-benefit analysis of the risks and potential benefits from climate change, improve monitoring and risk prevention as well as the overall reinforcement of inter-sectoral cooperation at the local and national levels of policy implementation so as to guarantee the effectiveness and equity of health responses.¹²² By embracing the dynamic interaction between climate and health in devising future international agreements, policy-makers could effectively respond to the challenges that such complex, pervasive and multi-faceted problems present. Cleaved international law can help understand the relationship between international climate change law and international health law as it continues its evolution over time. *f*

ENDNOTES

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- 3 See generally James D. Fry, *Cleaved International Law* (forthcoming 2016).
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- 7 See Konrad Zweigert & Hein Kötz, *An Introduction to Comparative Law* 1 (Tony Weir trans. 3d ed. 1998); Marc Ancel, *Comparative Law, Codification, and Unification*, 51 Tul. L. Rev. 108, 108 (1976); John C. Reitz, *How to Do Comparative Law*, 46 Am. J. Comp. L. 617, 618 (1998) (referring to the comparative methodology as a "self-taught experimental approach"); David J. Gerber, *Method, Community & Comparative Law: An Encounter With Complexity Science*, 16 Roger Williams U. L. Rev. 110, 122 (2011) (asserting that comparison is just something that scholars do).
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- 70 See *id.*, art. 3.1 & 3.2.
- 71 See *id.*, art. 4.1.
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- 73 See *id.*, art. 4.3 & 4.5.
- 74 See *id.*, art. 4.4.
- 75 See *id.*, art. 4.6.
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