The International Norm Dynamics of Climate Change in Global Health Governance: A Constructivist Analysis

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March 2021

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ABSTRACT

In the latter half of the 20th century environmental concerns made their way into the mainstream international political debate. With the emergence of global environmental governance, the human-induced dilemma of climate change sparked a growing international movement towards global climate-mitigation policies. International health concerns, however, had emerged onto the global political stage one century earlier in response to the urgent need to protect countries from the spread of infectious diseases across their state borders. The first International Sanitary Conference was held in 1851 and its findings were eventually published as a single text that contained the various conventions and regulations adopted by countries on managing the outbreaks and spread of disease – now termed the International Health Regulations. Although first referred to as international health diplomacy, global health governance in the 21st century has evolved to include a myriad of health determinants, with environmental factors most certainly being regarded major determinants of human health. As such, climate change advocates began to frame it as an integral global health concern. While the two intervening sectors of global health governance and global environmental governance are indeed converging on a variety of issues, the emergence and diffusion of the norms to combat climate change in global health governance presents an interesting revelation that demands attention.

This study provides an in-depth analysis of the history of climate change by delving into a broad and complex case study of global health governance. In order to determine the extent to which both state and non-state actors contribute to international norm change, it is important to understand how norms have emerged, whether they are cascading, and at what point they become internalised. Martha Finnemore and Kathryn Sikkink (1998) devised a significant theoretical framework which can be neatly applied to the abovementioned explanation of norm emergence, norm cascade and norm internalisation of climate change in relation to global health governance and the International Health Regulations. The unique utility of their norm life cycle model is demonstrated in its clear ability to explain international norm dynamics and account for norm change. This study consequently describes and explains how climate change has emerged as an important issue in contemporary global health politics as it is addressed in the field of International Relations. By examining segments within global health governance, the International Health Regulations provide a deeper case study approach to discern and explain climate change in global health governance. As various *norm entrepreneurs* frame and champion emergent norms in the first stage of the norm life cycle, climate change found its way into the agendas of both state and non-state actors. Turning to the second stage of the norm life cycle, this study was able to explain how climate change issues have *cascaded* into global health governance, which witnessed a greater level of norm adherence and adoption of the norms developed to combat climate change by the international community. This enabled the norms to enter the final stage of the norm life cycle, in which movements towards the *internalisation* of norms to combat climate change in global health governance and the International Health Regulations are described and explained.

OPSOMMING

In die laaste gedeelte van die 20ste eeu het kommer oor die omgewing toenemend deel begin raak van die hoofstroom internasionale politieke debat. Met die opkoms van Globale Omgewingsbestuur het die dilemma van die menslike impak op klimaatsverandering gelei tot ‘n groeiende internasionale skuif na globale klimaatmitigasie beleidstukke. Kommer oor internasionale gesondheid het egter reeds in die vorige eeu ontstaan in reaksie op die dringende behoefte om lande teen die verspreiding van aansteeklike siektes oor landsgrense heen, te beskerm. Die eerste Internasionale Sanitêre Konferensie het in 1851 plaasgevind en die bevindinge is uiteindelik in ‘n enkele dokument gepubliseer wat die konvensiens en regulasies rakende die bestuur die uitbreek en verspreiding van siektes bevat het en deur verskeie lande aanvaar is – vandag bekend as die Internasionale Gesondheidsregulasies. Hoewel daar aanvanklik na verwys is as internasionale gesondheisdiplomasie, het Globale Gesondheidsbestuur in die 21e eeu ontwikkel om menige gesondheidsfaktore in te sluit. Omgewingsfaktore sou dan ‘n deurslaggewende rol inmenslike gesondheid speel. Dit het daartoe gelei dat voorstanders van klimaatsverandering dit begin voorhou het as ‘n integrale en globale gesondheidsaangeleentheid. Hoewel daar op verskeie gebiede raakvlakke tussen die studievelde van die Globale Gesondheidsbestuur en Globale Omgewingsbestuur is, bring die ontstaan en uitbreiding van klimaatsverandering norme binne Globale Gesondheidsbestuur interessanthede na vore wat verdere aandag vereis.

Die studie bied ‘n diepte ontleding van die geskiedenis van die norme van klimaatsverandering deur dieper te delf in die wyer en komplekse gevallestudie van Globale Gesondheidsbestuur. Om die omvang vas te stel waartoe beide staat en nie-staat rolspelers bydra tot internasionale normverandering, is dit belangrik om te verstaan hoe norme ontwikkel het, of hulle intensifiseer en op watter stadium hulle internaliseer. Martha Finnemore en Kathryn Sikkink (1998) het ‘n belangrike teoretiese raamwerk ontwikkel wat handig te pas kom in die verduideliking van voorgenome normontwikkeling, normintensifisring en norminternalisering binne klimaatsverandering in verhouding met betrekking tot Globale Gesondheidsbestuur en die Internasionale Gesondheidsregulasies. Die unieke gebruik van die normlewensiklus-model is duidelik te sien in die vermoë wat dit skep om internasionale normdinamika te verduidelik en vir normverandering verantwoording te doen. Verder beskryf en verduidelik die studie in watter mate klimaatsverandering ontwikkel het tot ‘n pertinente aangeleentheid binne die hedendaagse globale politieke debat vir soverre dit internasionale verhoudinge raak. Deur segmente binne die Globale Gesondheidsbestuur te ondersoek, verskaf die Internasionale Gesondheidsregulasies ‘n dieper midde-in gevallestudie benadering om klimaatsverandering te onderskei en binne Globale Gesondheidsbestuur te verduidelik Soos wat menige norm entrepreneurs ‘n raamwerk van opkomende norme vorm en voorstaan binne die eerste fase van die normlewensiklus, verseker klimaatsverandering sy plek op die agendas van beide staat en nie-staat spelers. Wanneer gekyk word na die tweede fase in die normlewensiklus, het hierdie studie daarin geslaag om aan te dui in watter mate klimaatsverandering aangeleethede geïntenfiseer het binne Globale Gesondheidsbestuur en ‘n groter mate van normaanpassing en aanvaarding binne die internasionale gemeenskap tot gevolg gehad het. Dit het die norm in staat gestel om die finale fase van die normlewensiklus te betree, waarin bewegings na die internalisering van klimaatsverandering in Globale Gesondheidsbestuur en die Internasionale Gesondheidsregulasies beskryf en verduidelik word.

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Lastly, I would like to thank my mother, Linda Maclear, who, although no longer here, never stopped supporting my academic endeavours.

This thesis is, therefore, dedicated to her.

Table of Contents

List of Acronyms and Abbreviations

BAPA	Buenos Aires Plan of Action
CD	Communicable Disease
CFC	Chlorofluorocarbon
COP	Conference of the Party
COVID-19	Coronavirus Disease
CSD	Commission on Sustainable Development
DDT	Dichloro-diphenyl trichloroethane
ECD	Emerging Communicable Disease
EPI	Expanded Program on Immunisation
GAVI	Global Alliance for Vaccines and Immunization
GCG	Global Climate Governance
GEF	Global Environmental Facility
GEG	Global Environmental Governance
GHG	Global Health Governance
GOARN	Global Outbreak Alert and Response Network
GPE	Global Political Economy
HIV/AIDS	Human immunodeficiency virus, acquired immunodeficiency syndrome
IHR	International Health Regulations
IOM	Institute of Medicine
IPCC	International Panel on Climate Change
IR	International Relations
ISC	International Sanitary Conventions
ISR	International Sanitary Regulations
LoN	League of Nations
MDG	Millennium Development Goals
NCD	Non-communicable Diseases
NEPA	National Environmental Policy Agency
NGO	Non-governmental Organisation
OIHP	Office International d'Hygiene Publique
PH	Planetary Health
PHEIC	Public Health Emergency of International Concern
PHG	Planetary Health Governance
SARS	Severe Acute Respiratory Syndrome
SCEP	Study of Critical Environmental Problems

SDG	Sustainable Development Goal
SMIC	Study of Man's Impact on the Climate
TB	Tuberculosis
UN	United Nations
UNAIDS	United Nations AIDS Program
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on the Human Environment
UNCSD	United Nations Conference on Sustainable Development
UNICEF	United Nations Children Fund
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
USA	United States of America
UV	Ultraviolet
WHA	World Health Assembly
WHO	World Health Organization

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Interview Questions

The following questions were used to guide the semi-structured interviews with key informants towards various themes of research:

1. In your opinion, who are the key players involved in the framing and championing of climate change?
2. Do you agree with global health leaders who have proposed that climate change is the greatest public health threat of our time?
3. Would you say climate change has materialised and diffused within the global governance of health political agenda's? If yes, do you think it will materialise and diffuse further in International Relations as a field of study?
4. Would you say that the idea of climate change has been normalised as a public health threat, or is on the verge of normalisation in terms of legalities and societal perceptions (i.e., a 'taken for granted' perception)?
5. Why do you think there is such a big gap between legal norms and societal attitudes towards climate change, especially in countries where climate related disasters are so prominent?
6. Do you think that the International Health Regulations (2005) take climate change into account within its global health agenda? If yes, can you give an example of a case where the International Health Regulations (2005) have provided a useful risk management toolkit for a country facing a climate-related disaster?
7. Do you think that the World Health Organization should declare climate change a public health emergency of international concern? If yes, do you think the issue will be taken more seriously by the Global Political Economy?
8. Would you say that countries who do not participate in climate action should be singled out in the Global Political Economy (e.g., posing sanctions)?
9. To what extent do you feel disengagement with climate change by global leaders is influencing other countries to disengage?
10. In your opinion, what would a climate change *norm* look like?
11. What role would you say institutions play in the framing and materialisation of climate change *norms* in the global governance of health?
12. Why do you think climate change has not yet accelerated throughout the globe as a leading and detrimental public health issue that requires an immediate coordinated response?
13. Do you think that climate change correlated with the emergence and spread of the Coronavirus disease?

14. Do you think that emerging infectious diseases has/will accelerate the global response to climate change, or has/will emerging infectious diseases put climate discussions on the backend of global political agendas?
15. Do you have any recommendations of areas for future research in this field?

Key Informants

Pulvermacher, Katharine. Interview conducted on 29 September 2020. Ms Pulvermacher is the Executive Director of the Microinsurance Network, a global non-profit association based in Luxembourg. She has expertise in public health research and the impact of climate change, particularly in developing countries.

Brodie Rudolph, Tanya. Interview conducted on 12 October 2020. Ms Brodie Rudolph heads the multidisciplinary legal, design and consultancy firm, Enviromer, based in Cape Town. Her expertise is in the fields of marine life protection policies and their implementation, as well as broader environmental protection issues.

Banya, Roland. Interview conducted on 20 October 2020. Dr Banya is an Associate of Cenfri, a global research think-tank based in Cape Town. His expertise is in global development, green sustainability and international cooperation.

Chapter 1
Introduction, background and rationale

Background and rationale

According to the World Health Organization (WHO) (2019), in the 21st century environmental hazards have been responsible for an estimated quarter of the total burden of disease worldwide. Recent outbreaks of infectious diseases, such as Ebola across West Africa (2014-2016), Zika in parts of America and the Caribbean (2015-2016), bubonic plague in Madagascar (2017-2018) and even the recent Coronavirus pandemic (2019-present), pose serious threats to the global community. Most significant, according to the WHO (2019), is that the emergence and spread of infectious diseases, otherwise referred to as communicable diseases (CDs), is strongly associated with environmental factors such as water quality and supply, sanitation facilities, food and *climate.*

Before the establishment of the WHO in 1948, in the 19th century threats to public health became an issue of protecting borders, for example, when the highly infectious cholera epidemic appeared along various trade routes across Eastern Europe. Public health concerns began to threaten countries and their sovereignty, and so international cooperation, initially engaging in attempts to quarantine those with diseases, emerged as an internationally coordinated response. In other words, what was then known as *international* health diplomacy came increasingly to the fore. However, international health diplomacy was based, quite explicitly, on the national self-interest of the states involved at the time (Fidler, 2001:843). As globalisation intensified, health cooperation among state actors, multilateral organisations, transnational corporations as well as non-governmental organisations (NGOs) became much more complex. The complexity of managing international health concerns led to the emergence of *global health governance* (GHG) as we know it.

GHG has been defined by Fidler (2010:3) as a concept that scholars use to refer to "the use of formal and informal institutions, rules, and processes by states, intergovernmental organisations, and non-state actors to deal with challenges to health that require cross-border collective action to address effectively." With the formation of the WHO in 1948, *health for all* was normalised under the United Nations' (UN) agenda, which paved the way for what would later be known as *global health.* The WHO famously defines health in its Constitution as *the state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.* The WHO is celebrated for its successes in coordinating worldwide efforts to combat emerging and re-emerging global health issues, including the complete eradication of smallpox in 1980 (Ng & Ruger, 2011:2, 4). Despite its stature as the global health hegemon,

the WHO's credibility and power, however, declined significantly in the last half of the 20th century, which meant the global health community was faced with the emergence of a host of new organisations spreading across many different market sectors to such an extent that "the architecture of global health governance [became] significantly more crowded" (Youde, 2012:45). Nevertheless, regaining some of its reputation and credibility, the WHO remains the undisputed leader of GHG.

A leading intergovernmental organisation, under which the WHO was created, the UN, has actively engaged in the promotion and protection of *good health* worldwide. For example, the UN implemented a set of guiding rules or norms in its global development project, some of which enshrined *good health* for all: first in 2000 in its Millennium Development Goals (MDGs), later to be replaced by the Sustainable Development Goals (SDGs) in 2015. In addition to the MDG/SDG framework, a UN Agency, the WHO, has defined a further set of rules and norms within its constitution that provide a global normative framework for member states when facing a public health emergency: The *International Health Regulations (IHR or the Regulations)* (Davies et al., 2015). The most recent IHR (2005) has the purpose and scope to "prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade" (WHO, 2005). The Regulations are representors of the core features and guiding structure of public health, including how it is managed, and they are one of the main reasons why the WHO remains a dominant actor in GHG.

Following the emergence of GHG, issues around *environmental sustainability* or *global ecological concerns* began to materialise in the formal political agenda. Robin Eckersley (1992), a leading green political theorist, argues that the environmental crisis and popular environmental concerns, such as rising global temperatures, prompted both the emergence and continuation of environmental politics. Historically speaking, the 1960s marked the beginning of widespread concern over environmental degradation, particularly in more developed countries of the West.

Stemming from these concerns, the UN Conference on the Human Environment (UNCHE) held in Stockholm in 1972 is regarded as the starting point when the international community began identifying and formalising its own role in what can be called *global environmental governance* (GEG) (O'Neill, 2009:4). This cascaded down to the emergence of various and specific political parties in the 1970s that, according to Eckersley (1992:7-8), sowed the seeds for much of the prevailing green political theory. For example, political ecology became a useful way to describe the intentions behind radical movements in those industrialised

countries of the West who were protesting against first-world environmental degradation in the Anthropocene (Cockburn & Ridgeway, 1979:3).

The theory of political ecology has taken on a range of meanings throughout its existence – from Blaikie and Brookfield (1987), who used the body of theory to explain environmental change as a consequence of production choices constrained by the political economy, to Watts (2000), who sought to understand the complex relations between nature and society, where societies' access to and control over their natural resources has serious implications not only for the health of the environment, but also for individuals and their livelihoods (Robbins, 2012:15-16). Political ecological literature soon began to recognise that there is a co-dependent relationship between *global health* and the *environment*.

Symbolically, the Stockholm conference led to the establishment of the UN Environment Program (UNEP) in 1972, which is the leading global environmental authority stating, coordinating and advocating for the global environmental agenda within the UN system. Moreover, in the wake of the UN Conference on Environment and Development (UNCED) in 1992, the so-called 'Earth Summit', global ecological literature relating to sustainable development found more influence and prominence (Newell, 2008:516). In addition, the UN's 2030 agenda consists of around seven environmentally focused SDGs, one of which (*Goal 13*) explicitly calls for climate action. GEG ultimately emerged and includes efforts by the international community, particularly among NGOs and transnational organisations, to manage and overcome shared problems stemming from abuse and mismanagement of the environment (O'Niell, 2009:3-4; Winchester, 2009).

Numerous states have since participated in pro-climate activities across the globe, as human-induced climate change has become more and more recognised as being accelerated by the activities of humankind. The implementation of carbon taxes in various countries worldwide, for example, demonstrates a global response to climate change, whereby the level of carbon content emitted by countries is taxed. Moreover, local activism for climate action worldwide, particularly amongst millennials, has become a major turning point for climate-related decisions made by the global community. For example, Greta Thunberg, when she was 15 years old, influenced the emergence of a global and growing movement near the end of 2018 known as the *Fridays For Future* movement, which promotes climate action among millennials who began skipping school every Friday to demonstrate their alliance to the movement. She has since been an active global player in discussions around climate change and calls for immediate action within the global community.

Both health and environmental concerns are coming to the fore in a new global security framework. Looking back, after the end of the Cold War in 1989, a number of changes to global

dynamics became apparent. Academically and geo-strategically, one of the most significant of these was new perspectives and realities associated with the concept and theme of *security.* Rather than focusing on just military threats, security began to encompass a variety of variables (Buzan, 1997). *Human security* emerged as a concept placing the emphasis on the individual (rather than the state) as the primary object. A report set out by the UNDP (1994:23) defines human security as having two main aspects: "safety from such chronic threats as hunger, disease and repression" and "protection from sudden and hurtful disruptions in the patterns of daily life." In simple terms, human security is concerned with the preservation and protection of an individual's life, including their quality of life and access to welfare. In its relation to health, once infectious diseases spread transnationally, human security is seriously threatened (Brower & Chalk, 2003).

However, recent studies, for instance on the emergence of Planetary Health (PH), have been concerned with human security and its link to ecological theory and the environment. As such, more and more studies are proposing that climate change is a threat to public health. The Paris Climate Agreement goes as far as linking positive climate action with a healthier and more prosperous environment for containing the spread of disease (UNFCCC, 2019). Despite improved aggregate human health indicators worldwide, progress is reliant upon the ecological and biophysical systems of the earth itself, while the determinants of health have grown exponentially in that numerous factors such as social status, gender and environmental circumstances are included (Whitmee et al., 2015:1974).

A growing sense of urgency toward finding new policy directions has therefore emerged around how best to protect the earth's atmosphere, oceans and ecosystems on which humanity depends. According to a final report referred to above, set out by various advocates of the Rockefeller Foundation-Lancet Commission on PH (Whitmee et al., 2015:1974), improved global governance is necessary in order to aid the process of integrating policies on social, economic and environmental affairs. Health norms, and more recently a set of green norms, are now informing the transformation of GHG. Specifically speaking, climate change has altered the approach and mission of the UN and the WHO in managing issues around global health.

Problem statement

The complex linkages that are emerging between the environment and health have serious implications for the global community and the collective response to the threat to individual health. Not only are environmental hazards becoming more responsible for the total burden of disease worldwide, but the earth is also simultaneously facing increasing threats to the

sustainability of its natural systems. GHG emerged out of a globalising era when the transnational spread of infectious diseases began to threaten countries' sovereignty and the human security of their populations. The IHRs in particular emerged along the lines of GHG and function to guide nation states when they face *public health emergencies of international concern*. Given the prevalence of current epidemics and pandemics, however, human health cuts across many determining factors. In particular, climate change is highlighted by many individuals and global governing entities as its relationship with the health of people and the spreading of disease is becoming more recognisable than ever. The concept of climate change emerged in the global governance narrative almost a century after the conception of global health concerns, particularly in the 1970s with the emergence of GEG, as the increase in global and regional temperatures began to threaten the sustainability of the planet and all its inhabitants. As the climate-health nexus lacks a clear conceptualisation in IR, it is important to clarify the nature of this grey area where both health and environmental issues overlap, particularly within GHG.

Since the study of norms and normative issues is central in political science, most constructivists in IR have been concerned with understanding norm dynamics and how they translate into political change. This study therefore adopts a constructivist perspective with the overarching purpose and challenge to address the emergence and diffusion of climate change norms within GHG and how this has translated into the IHR (if at all) (IHR, 2005). In other words, *is climate change discernible, cascading and internalising in GHG*? Although there are many perspectives on norm development and history, the aforementioned problem will be addressed mainly by applying the constructivist perspective outlined in Martha Finnemore and Kathryn Sikkink's 1998 article, "International Norm Dynamics and Political Change," by gauging the heuristic utility of their norm life cycle model to ascertain to what extent it can adequately explain the emergence of climate change within GHG and the IHR (2005).

Research questions

In the light of the above problem statement, this study is guided by one primary question and three secondary questions.

The primary research question to be investigated is:

How are the norms developed to combat climate change discernible and manifesting in GHG, and specifically in the IHRs?

The three secondary questions are:

1. *Who have acted/are acting as norm entrepreneurs in the framing and championing of climate change in GHG and the IHRs?*
2. *How have norms related to climate change materialised and diffused in GHG and the IHRs?*
3. *Which institutions have emerged around climate change and what norms have informed their operation in GHG and the IHRs?*

Theoretical approach

In order to answer these research questions, the *constructivist lens* of IR theory is employed throughout. The theory of constructivism is a social theory broadly concerned with the relationship between norm agents, identities and institutional structures (Baylis, Smith & Owens, 2008:803). Unlike the realist and liberal schools of thought, constructivism is a unique perspective that offers an interpretive lens, regarded by scholars as the middle ground or bridge between the various other conceptual approaches to IR. That said, constructivists offer alternative insights and explanations for events occurring within the social world. Weber (2005:60) rightfully asserts "there is something for everyone" in constructivism, as does Viotti and Kauppi (2012:299), who suggest that constructivists "can find a place" within most of the IR traditions.

Constructivism emerged out of the unforeseen events occurring in the late 1980s and early 1990s, specifically the end of the Cold War. It evolved as an opponent to dominant realist and liberal assumptions to become a research methodology that has provided key insights onto IR and world politics (Viotti & Kauppi, 2012). Constructivists argue that political reality is made up of a combination of ideational and material facets (Lawson, 2015:156). To this end, shared beliefs, ideas and values have structural characteristics that are understood to influence both social and political action. Structure and agency respectively are then understood to influence (political) normative change. Normative and ideational structures are important to constructivists as these arguably shape the social identities of various political actors (Reus-Smit, 2005:198).

A leading constructivist theorist, Alexander Wendt, argues that existing identities, interests and institutions are a consequence of the interactive and social processes that are "mutually constitutive" (Wendt, 1992:399). That being said, neither identities nor institutions are pre-given. Institutions are otherwise constituted through social interactions that occur among various identities, as like identities and interests that are formed out of other identities and existing social institutions (Weber, 2005:65). These identities and interests can be modified over time as social processes and material developments interact. Constructivists then view the

international structure in terms of a social structure where ideational factors such as norms, rules and laws are incorporated in their understanding. As its name suggests, constructivists view the world (this social structure engaged by various agents and actors) as a project always under construction (and always changing) (Viotti & Kauppi, 2012).

The study of norms and normative issues have therefore been central to theorists of constructivism and the study of political science (Finnemore & Sikkink, 1998:889). Viotti and Kauppi (2012:286), among others, describe norms as "generally accepted values that define standards of appropriate behaviours for agents (actors) with a given identity." Identities thus inform interests, which in turn inform actions or standards of behaviour. Finnemore and Sikkink (1998:892) state that, rather than being dichotomous, norms can be defined as continuous entities that come in varying strengths. By this they mean that different norms command different levels of agreement. Growing agreement on some emergent norms can lead to what is called "the tipping point" that describes widespread agreement in numerous empirical cases (Finnemore & Sikkink, 1998:892-893). It is this development and transformation of norms that interests constructivists.

Numerous studies have argued that there is in-fact a positive correlation between global norms and national behaviour. Influenced by institutionalist sociology, Martha Finnemore and Kathryn Sikkink's (1998) contribution has been paramount towards understanding norm dynamics and how they translate into political change. The institutionalist perspective, in particular, is concerned with the mechanisms behind intersubjective social constructs, i.e., institutions. Institutions have been defined as "a relatively stable collection of practices and rules defining appropriate behaviour for a specific group of actors in a specific situation" (March & Olsen, 1998:948). This perspective tends to emphasise institutionalisation as the process by which these institutions are constructed and integrated into political reality. In this case, norms are understood to influence these institutional structures and frameworks. For example, the outbreak of infectious diseases led to the emergence and diffusion of institutions to promote and protect country borders, as in the first International Sanitary Conventions (ISC) that worked to manage and regulate state behaviour when in the face of disease outbreak.

By incorporating a constructivist lens, this study is interested in these processes in terms of how norms related to climate change are shaped and acted out through complex social relations within GHG and the IHRs. This is primarily done by examining how these norms have emerged, cascaded and become internalised in international politics. Although there are various types of constructivist lines of thinking, for the purposes of this study Finnemore and Sikkink's 1998 article "International Norm Dynamics and Political Change" has been a key point of departure. Their theory has proven to be useful in numerous analyses of norm change (e.g., in

Sara E. Davies, Adam Kamradt-Scott and Simon Rushton's 2015 publication: *Disease Diplomacy: International Norms and Global Health Security*). Their most celebrated contribution, to which this study owes its approach, has been on the *norm life cycle model.*

Finnemore and Sikkink's (1998) norm life cycle model consists of three stages: *norm emergence*, *norm cascade* and *norm internalisation*. The first stage deals with the persuasion by norm entrepreneurs. Norm entrepreneurs attempt to persuade and convince a significant number of norm leaders (or "states") to embrace their new norms. The second stage has to do with widening norm imitation. This occurs when norm leaders attempt to socialise others, such as the rest of the population or other states, into becoming norm followers. Norm followers are regarded as such as they begin to imitate the norm(s). The motivation behind such norm imitation varies and can include a combination of reasons, for example, pressure to conform or to enhance one's legitimacy or sovereignty in the international system. International organisations such as the UN, for example, often condemn and pressurise governments that do not conform to global initiatives and sought-after behaviour, as seen in the global reaction to the United States of America (USA) withdrawing the Paris Climate Agreement. The final stage occurs once these norms have been internalised, usually at the far end of the norms cascading process, insofar as these norms are no longer a matter for debate but have a 'taken-for-granted' quality. At this point cascading norms become the new *standard* that is accepted and *internalised* by the majority (Finnemore & Sikkink, 1998:895).

However, completion of a norm life cycle is not always inevitable, and many emergent norms fail to reach the point at which they start to cascade (*the tipping point*). In addition, the transition between the three norm stages is characterised by similar and/or separate modes of influence, namely by different actors, motives and mechanisms. A dominant mechanism behind both stages two and three, for example, can include institutionalisation. Moreover, norms do not just emerge randomly. Rather, agents actively construct them out of strong notions about what (or what they think) is appropriate and desirable behaviour (Finnemore & Sikkink, 1998:895-898). For example, the UN is a classic example of a norm leader/actor in its role behind the creation and implementation of the MDGs/SDGs.

The theory behind this norm life cycle model will be utilised as a fundamental building block for the development of this study, which accepts the argument that norm-based behaviour is relevant for explaining political change. By applying Finnemore and Sikkink's (1998) model of the norm life cycle, this study attempts to make sense of and situate the norms that have emerged and developed around climate change into global governing structures of health, particularly within the IHRs. As Finnemore and Sikkink (1998:915) proclaim, this so-called

"return to norms" endeavour opens the way for far more avenues of inquiry, to the extent that the *ought* becomes the *is*, and is subsequently internalised in political reality.

Research design and methods

According to Burnham et al. (2008:39), a research method refers to the logical approach of the social scientists' study. This study is conducted through a qualitative analysis with a deductive logic. Through applying a deductive logic, the study began with a research question and utilised the theory behind Finnemore and Sikkink's (1998) norms life cycle model in order to derive answers to the research questions and respond to the research problem. As the research questions have normative implications, the normative concerns around climate change within the global governing structure of health are addressed. As a preferred method by social science scholars, qualitative research thus tends to include a normative dimension (Pierce, 2008:45). It is generally concerned with issues of a complicated and detailed nature, such as the perplexing end to the Cold War, whereby it intends to understand and explain these complexities of social and political life (Pierce, 2008: 41-45). By using qualitative research, this study attempts to seek explanations and solutions around the manifestation of climate change in GHG and the IHRs.

A theory, according to Barakso, Sabet and Schaffner (2014:16), refers broadly to an idea about the ways in which the world is thought to work. This study, however, does not attempt to prove a theory, nor does it imply the theory's suitability as 'best fitting' with understanding climate change in relation to global health and GHG. Rather, the study is guided by the theory proposed by Finnemore and Sikkink (1998) as it attempts to contribute towards the existing body of knowledge on the relationship between climate change and global health, and the narrative or framework that this relationship is governed by on a global scale. Moreover, the study follows the process of descriptive inference, where the facts *we know* are utilised in order to learn about the facts *we don't know* (Barakso, Sabet & Schaffner, 2014:18). In this case, the research makes an inference regarding the relationship between climate change and global health, including how this relationship is governed through GHG and the IHRs.

In order to discern and explain the manifestation and diffusion of the development of norms to combat climate change in GHG, a number of academic journals, books, and online databases were consulted. The method used to collect information was predominantly through accessing secondary sources through the Stellenbosch University Library as well as other freely available online journal databases. As such, the research is for the most part limited to a desktop study. The sources used focus on themes associated with climate change, global health, green sustainability, and various and shifting global governance structures (namely GHG, GEG and

the global governance of climate change). Most significant is the focus on the IHRs, ranging from the 19th century to the present. However, as the scope of this study does not address all sources related to the above themes, it does not present an all-inclusive account of the existing research.

Furthermore, this study incorporates a case study design, which is a widely used and popular method within the social sciences, particularly used to explore complex macro-level phenomena (Barakso, Sabet & Schaffner, 2014:177). A case study design can be based on either multiple or single cases (Burnham et al., 2008:65). Barakso, Sabet and Schaffner (2014:177) elaborate on this statement by referring to a comparative or single case study design in their description of what is called "small-n observational studies". As the study is observational, it does not refer to experimental research, but rather to an observation of a political phenomenon as it exists in reality.

John Gerring (2004:342), in line with small-n descriptions, defines a case study as "an intensive study of a single unit for the purpose of understanding a larger class of (similar) units." In other publications, Gerring (2007) and Yin (2009) state that the strength of the case study method lies in its description of representative units in order to study more detail and harness greater insights into the causal mechanisms with larger sample sizes. Gerring (2007), in particular, further suggests that one typical case study approach is an analysis of the various and specific elements of a case – he terms this as *a within-case* method. The case study incorporated in this study is on GHG and more specifically the IHRs which are operating within this landscape. By case studying GHG and incorporating the international regulations (or norms) as a *within*-case study, the materialisation and diffusion (or cascading) of the international norms relevant to climate change in GHG can be described. The value of this case study approach, therefore, lies in the investigation of its (GHG's) various elements.

Limited primary data were also collected by conducting virtual, in-depth semi-structured interviews with key informants (researchers, public health experts, or field leaders relevant to the themes of this thesis). Key informants were carefully selected based on their expertise and association with the themes discussed throughout. Privacy of these key informants is strictly maintained, insofar that the appropriate mechanisms to prevent ethical risks are endorsed. In line with prevailing Coronavirsu Disease (COVID-19) restrictions, these interviews were completed via virtual communication platforms, namely Skype, Zoom and Microsoft Teams. The approach of using in-depth semi-structured interviews gives the interviewee a sense of structure, whilst being able to learn from the interviewer by going off-script. The questions are thus survey-style questions and are followed by open-ended inquiries (Barakso, Sabet &

Schaffner, 2014:194-195). The interviews conducted discussed themes relevant to the abovementioned research areas and proved to be quite beneficial to this study.

Outline of study

Chapter 1 addressed issues of a methodological nature and provides the rationale and basic structure of this study (i.e., the research question and its objectives). It introduces the various concepts and issues (most notably the relationship between climate change and global health), as well as the importance of studying the normative behaviour that underpins the theoretical foundations upon which the study is built. It further focuses on the research design and the ethical considerations with regards to its use of primary data.

Chapter 2 is a literature and historical review of global health in global governance; the emergence and evolution of GHG from the 19th to 21st century is discussed and the narrative on the development of the IHRs is presented. It further introduces the emergence of environmental concerns in GHG in order to set the stage for the focal point of this study: the emergence and diffusion of norms in response to climate change in GHG and the IHRs. This section also situates global health in IR as a field of study.

Chapter 3 follows a similar structure to Chapter 2, but concentrates on a literature and historical review of GEG. It discusses the emergence and evolution of GEG starting from the 1960s/1970s and emphasises global responses to the threat posed by climate change. It further attempts to situate the grey, yet crucial, area of this research: *the climate-health nexus*. This chapter situates the relevant conversations in IR and provides an overview of the emergence and diffusion of climate change within GHG.

Chapter 4 describes the theoretical foundations of the study. It provides an overview of constructivism within IR theory before presenting an in-depth look into Finnemore and Sikkink's (1998) key contribution. More specifically, it explores the *norm life cycle* by addressing the three stages that explain how international norm change/influence occurs: *norm emergence*, *norm cascade* and *norm internalisation*. The purpose of this chapter is to provide a basic understanding of constructivism and situate it within the conversation on norm dynamics in Finnemore and Sikkink (1998).

Chapters 5, 6, and 7 apply Finnemore and Sikkink's (1998) norm life cycle model to the emergence of climate change as a concept in GHG. This is done to trace the emergence of norms to combat climate change in GHG and the IHRs, as well as their manifestation and diffusion. Chapter 5 focuses on the *norm emergence* (i.e., *norm entrepreneurs* and *organisational* platforms) which led to the incorporation of climate change in GHG and the IHRs. Chapter 6 deals with *norm cascade* (i.e., *states* and *international organisations*) beyond

the *tipping point* in GHG. Chapter 7 deals with *norm internalisation* (i.e., formalised *laws* and *professions*) in which the incorporation of climate change in GHG and the IHRs are applied to the final stage of the norm life cycle.

Chapter 8 draws conclusions from the findings of the study as a whole. These conclusions address the research problem identified in Chapter 1, as well as the research questions. Finally, this chapter identifies possible areas for future research.

Chapter 2
The emergence and evolution of Global Health Governance

Introduction

As indicated in the introductory chapter, GHG emerged during a globalising era when the transnational spread of infectious diseases began to threaten the sovereignty of nation states. However, pushed by various champions, events, institutions and frameworks, the makeup of GHG has evolved since its inception to include a myriad of political actors who engage with expanding global health challenges. Currently, in many countries worldwide, the adverse effects by climate change have come to the fore; the relationship between climate change and human health is being more closely scrutinised, to the extent that climate change concerns have begun to manifest within global health negotiations. Global negotiations are often considered integral to the makeup, emergence and development of *regimes*, where a regime has been defined as "sets of both formal and informal rules, institutions and procedures aimed at governing action in a particular issue area" (Depledge, 2005:13).

In the case of this study's primary research question (*How are the norms developed to combat climate change discernible and manifesting in GHG, and specifically in the IHRs?)*, global negotiations behind the global health regime are addressed and the particular areas where global health concerns intersect with climate change are emphasised. It is therefore important to contextualise the setting within which this intersection occurs: GHG and GEG. As the history behind these global governance regimes is long, including a plethora of variables and copious elements, this literature and historical review is divided into two thematic parts: Chapter 2: The emergence and evolution of Global Health Governance; and Chapter 3: The emergence and evolution of Global Environmental Governance.

Chapter 2 provides a historical account of the elements that underpin the makeup and transformation of GHG and describes the emergence of climate change as a dimension within its evolution. It is divided into three separate sections. The first section provides an overview of the key terminology that underpins both the global governance and GHG narrative as relevant to this thesis. The second section then provides the bulk of the information on the emergence and evolution of GHG from the 19th to the 21st century. It highlights various events that have driven the development of GHG, as well as the institutions that exist within and between these fields. It further addresses the set of normative frameworks, such as the SDGs and the IHRs, that have guided its more recent evolution in the 21st century. The evolution of the IHRs is emphasised as crucial to addressing the research questions and problem. The final

section situates these health conversations within the ambit of IR, which also entails a security framework.

Terminology

As indicated above, it is important to provide clarity on key terms by account of dominant scholarly definitions. This section looks at four concepts in particular: global governance, international health, global health, and Global Health Governance. The first term, global governance, is important to contextualise Chapters 2 and 3 that deal with two dominating spheres in global governance literature (GHG and GEG). The following two concepts, international health and global health, are defined against each other in order to present how GHG evolved from international to *global* health. Before discussing its emergence and evolution, the final concept (GHG) contextualises Chapter 2 and provides significant clarity to the research questions and problems that seek to address GHG in particular.

Global governance

Global governance has taken on a variety of different meanings and has been defined in various and competing ways. According to Oran R. Young, at the most general level, governance refers to:

> … [the] establishment and operation of social institutions (in the sense of rules that serve to define social practices, assign roles, and guide interactions among occupants of these roles) capable of resolving conflicts, facilitating cooperation or, more generally, alleviating collective action problems in a world of interdependent actors (Young, 1994:15).

As it is broad, global governance has overlapping interests, from the global governance of economics to the environment. Its relationship and direct analogy with the term 'government' is often misguided, and, according to Rosenau, although both terms have similarities, such as referring to purposive behaviour or systems of rule, they do not imply the same meaning.

> … [Government] suggests activities that are backed by formal authority, by police powers to ensure the implementation of duly constituted policies, whereas governance refers to activities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities and that do not necessarily rely on police powers to overcome defiance and attain compliance (Rosenau, 1992:4).

This definition implies the stark absence of a legitimate political authority in the international system. However, some scholars (such as Jordan, Wurzel & Zito, 2005) argue that government

and governance are actually much more intertwined than is often assumed – because they both entail the implementation of policy instruments or various forms of regulation.

Finkelstein (1995) situates control into his definition of global governance as being purposeful activity intended to *control* or *influence* both state and non-state actors in the international system. Similarly, according to Barnett and Duvall's *Power in Global governance* (2005), global governance further emphasises *power* as it raises the question of how global life is and should be organised, structured, and regulated. This understanding and use of the optics of power demonstrate the basic normative issues of IR theory as it draws attention onto what shapes the fates and choices of global actors (Barnett & Duvall, 2005:7-8). McInnes and Lee (2012:101) argue that governance refers to *a series of rules, norms and principles,* some more formal than others, that are generally accepted by the actors involved. This definition is reflected in a Policy Note written by the UN Committee for Development Policy in 2014:

> [Global governance] encompasses the institutions, policies, norms, procedures and initiatives through which States and their citizens try to bring more predictability, stability and order to their responses to transnational challenges (UN, 2014:3).

This definition is important as it points to the multifaceted nature of the term and the essence of the norms that guide policy and behaviour.

International Health versus Global Health

The term, international health, was widely used in the late 19th and early 20th century to refer primarily to the collaborative efforts to control disease outbreaks that spread across borders (Brown, Cueto & Fee, 2006:62). However, definitions behind international health cooperation began to evolve to include far more intricate understandings. Rather than simply referring to intergovernmental relations, international health needed to represent the complexities behind the advancing global community (McInnes et al., 2014:3). Its evolution has been described by some, specifically in *The Transformation of Global Health Governance* by McInnes et al., as a response to and reflection of an increasingly globalised world. Health cooperation is now no longer understood as being merely international, but rather *global* as the scope for national responses to existing or growing threats behind health issues has diminished in the face of globalisation (McInnes & Lee, 2012:6). McInnes and Lee (2012), argue further that beyond stemming from exogenous 'real world' developments, global health is a contested field made up of competing and different normative frames ranging from security to human rights frameworks.

Amid competing understandings and definitions, Koplan et al. (2009) have called for the adoption of a common definition of global health for conceptual clarity. They put forward a definition of global health:

> Global health is an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. [It] emphasises transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care (Koplan et al., 2009:1995).

In this definition, global health is understood to be reliant on the many and various determinant factors of health, namely the problems, issues, concerns and solutions that emerge and transcend national boundaries. Taking into account the whole planet, the term is not just concerned with one or any particular nation. Moreover, global health is associated with the growing importance of various other actors beyond just the state and government organisations, such as foundations or NGOs (Gómez-Dantés, 2003:316; Brown, Cueto & Fee, 2006:62). However, McInnes and Lee (2012:17) rightfully assert that despite substantial interest in the subject of global health, "a single agreed definition is unlikely to emerge."

Global Health Governance

According to Dodgson, Lee and Drager (2002) the term GHG did not appear in global health discourse until the year 2002. Like global health, the term has shifted in meaning since its inception in line with a globalising world, to which "the global in global health refers to the scope of problems, not their location" (Koplan et al., 2009:1994). Although lacking clarity and consensus (McInnes et al., 2014), GHG can be understood as a specified sub-type of the larger structure of global governance. Moreover, as global health constitutes numerous normative frameworks shaping its thinking and practice, GHG should also not be separated from global health definitions, nor should these various and competing frameworks be thought of as mutually exclusive (Fidler, 2010:3; McInnes & Lee, 2012:129). The framing of GHG, especially as a normatively contested concept, becomes an important political tool that, broadly speaking, refers to the organisation and coordination of various global health efforts.

In a rapidly globalising world, David P. Fidler in *Global Health Governance* (2002) defines GHG as a concept used "when thinking about how globalization affects the national and international pursuit of public health" (Fidler, 2002:6). He goes on in a later text to link understandings of global governance to the complexity of global health. In line with global governance definitions, he describes GHG as:

> …the use of formal and informal institutions, rules, and processes by states, intergovernmental organizations, and nonstate actors to deal with challenges to health that require cross-border collective action to address effectively. This definition's relative simplicity should not obscure the breadth and complexity of this concept (Fidler, 2010:3).

Jeremy Youde (2012) defines GHG the same way, emphasising the use of multiple actors and collective engagement on international health issues by way of the institutions, rules and processes that govern them. Patterson (2018) understands that health is linked to variety of other factors and writes:

> [GHG] involves multiple actors, disciplines, and levels, recognizes the effects of globalisation on disease, acknowledges societal responses to health and health solutions, and understands the linkages between health and economics, security, and the environment (Patterson, 2018:5).

But McInnes et al. (2014:96) state that GHG is not constituted by a coherent set of easily identifiable rules and norms, but rather a variety of both complimentary and disjointed policies at multiple levels of governance in various other areas, including development and security.

GHG: emergence and evolution from the mid-19th to 21st century

Because global health has proved to be difficult to define, it is a challenging task to say the least to provide a complete and comprehensive view of its development. Since the late 1990s the term *Global Health Governance* has been widely used amongst global health players and scholars alike. Historically speaking, the study of health is concerned with the physical, mental and social condition of an individual or population. Nowadays, it is widely accepted that the list of the determinants of health cover a much broader spectrum, now taking into account factors ranging from income and social status to issues of the environment (McInnes & Lee, 2012:1). As such, health has become a more inclusive concept than one just referring to medical concerns, but now includes development, humanitarian and security issues (Zacher & Keefe, 2008); emergent issues of climate change have now also been added to the global health agenda. This section provides a historical review of the key literature that describes GHG from the 19th to the 21st century. It is divided into four parts: *19th century: setting the stage*; *20th century: the development of global health partnerships*; *Continued evolution: the emergence of normative frameworks*; and *21st century: advancing global health determinants*.

19th century: setting the stage

The first signs of international cooperation or diplomacy around the control of global risks to human health came about only in the mid-19th century. The term *diplomacy*, according to Kickbusch et al. (2013:1), was first coined just before the start of the 19th century by Edmund Burke in 1796, an Irish political journalist and British Member of Parliament; he used the term to refer to the conduct of negotiations between country officials to achieve their various and competing foreign policy objectives, mainly without resorting to war. In 1851 what was then known as *international health diplomacy* emerged when European states convened in France for the first International Sanitary Conference to discuss their cooperation around the spread of infectious diseases, namely cholera, the (bubonic) plague and yellow fever, which had erupted since the 1830s as a result of new trade patterns (Fischer, Kornblet & Katz, 2011:5).

Prior to these events, national quarantine policies and embargoes on ships' passengers and cargo were important measures implemented to halt the effects of especially the cholera epidemic that had swept across parts of Europe, Asia, the Middle East and the Mediterranean countries. Quarantine response measures to halt the spread of infectious diseases date back as far as the 14th century, when the Black Death wiped out vast sections of the population across Europe. Nevertheless, amid rapid globalisation, technological advances in transportation and specifically advanced trade routes between states, such quarantine measures, although slowing the rate of infections, were proving to be highly unsuccessful. To this end, disease control became the subject of international diplomatic discussions (Fidler, 2001:842-843; Gómez-Dantés, 2003:319; Zacher & Keefe, 2008:25-26; Rushton, 2009:60; Fidler, 2010:4).

Throughout the rest of the 19th century international health conferences became frequent events. For example, a total of fourteen International Sanitary Conferences took place from 1851 up until 1938, which had a significant impact on the conventions and arrangements of GHG in the 20th century (see Figure 2.1 below on the International Sanitary Conferences from the 19th to the 20th century). In the 19th century these conferences were set up following a series of outbreaks of infectious diseases, particularly the spread of cholera, as noted above. At this time, health diplomacy sought to improve the response strategies to deal with the outbreaks of infectious diseases, as well as to reduce impact of restrictive measures such as quarantines on trade and travel (Cumming, 1926; Zacher & Keefe, 2008:27-33; Fidler, 2010:4; Kickbusch & Ivanova, 2013:12; McInnes, Lee & Youde, 2020). Zacher and Keefe explain the emergence of a new health regime after 1851:

> The latter half of the nineteenth century witnessed the birth of a new health regime. Although the regime was designed to govern global health issues, the earlier discussion explains that it was a combination of health and trade concerns – not solely health

> concerns – that acted as an instigator for the first cautious attempts at multilateral control of infectious diseases (Zacher & Keefe, 2008:32).

They go on to say that:

> …[The] predominant catalyst for collaboration was the belief that uncoordinated responses to disease outbreaks were hindering global trade by delaying ships and passengers in ports – and not reducing the incidence of diseases (Zacher & Keefe, 2008:33).

Managing the spread of infectious disease multilaterally (with three or more nations), while attempting to integrate and advance trade solutions, represent first collaborative efforts at GHG.

Other health threats also came to the forefront in the multilateral, diplomatic discussions in the second half of the 19th century, namely, and most significantly, the threat of societies' mass industrial and development activities that caused major environmental disruptions, for example, polluted rivers and lakes (Zacher & Keefe, 2008; Fidler, 2010:4). Aside from other concerns about, for example, the environment, GHG was for the most part limited to collaborative discussions on curbing the spread of cholera and on how best to coordinate global efforts towards preventative measures in such a way that trade would not be hampered. The global governance of health in this regard is thus essentially a discussion on economic development concerns. On the limitations of the developments of GHG in the 19th century, Zacher and Keefe state that:

> No significant progress occurred in the last half of the nineteenth century except for a greater understanding among states of each other's divergent interests and diverse understandings of diseases (Zacher & Keefe, 2008:40).

Brown, Cueto and Fee (2006:62) rightfully assert that, despite modest growth, engagements in the 1900s paved the way for future collaborative efforts on dealing with global health concerns. Similarly, Kickbusch and Ivanova (2013:12) state that "the 19th century was an era of preparation for international organization."

(See Figure 2.1 on the following page)

Figure 2.1

International Sanitary Conferences from 1851-1938

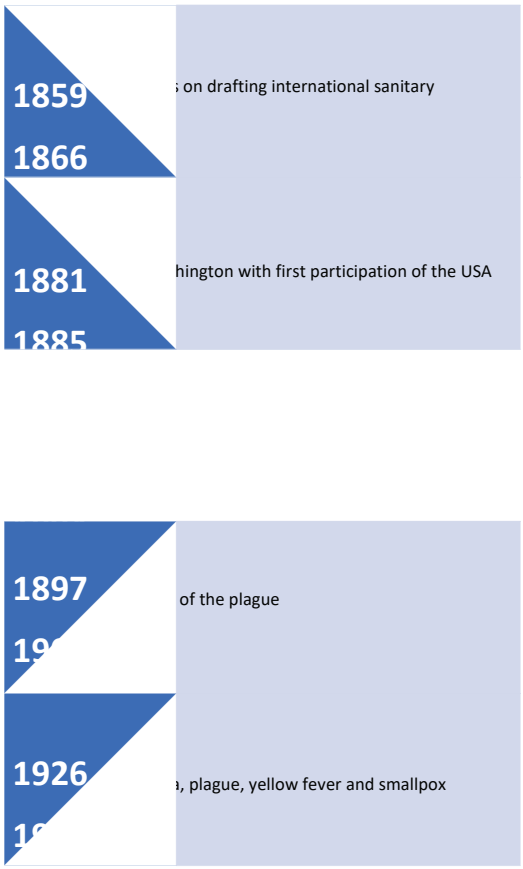


Figure 2.1: International Sanitary Conferences from 1851-1938 (Sources: Cumming, 1926; Fischer, Kornblet & Katz, 2011:5; McInnes, Lee & Youde, 2020).

20th century: the development of global health partnerships

The 20th century has been described by some (for example, Gómez-Dantés, 2003:317; Zacher & Keefe, 2008:40-41) as a period that saw more progress towards advancing health systems and healthcare worldwide than ever before. Although leaving many countries and individuals in need untouched (Gómez-Dantés, 2003:317), various global health partnerships emerged throughout this period that sought to tackle existing and emergent international health problems through a collaboration of efforts. As mentioned above, these initiatives had evolved from being simple measures to control the regional spread of disease, to a far more complex global regime made up of increasing functions and objectives, institutional arrangements, and a growing number of health players.

At the turn of the 20th century, a crucial agreement was reached at the eleventh International Sanitary Conference of 1903 (see Figure 2.1 above) that launched the very first regulations on managing global health. Zacher and Keefe write:

> The beginning of the modern era of international health collaboration is often dated to the acceptance of the [International Sanitary Regulations/ISRs] of 1903. The regulations were aimed in large part at preventing the spread of diseases from developing to industrialized countries and preventing national quarantine controls by nonindustrialized states from impeding the flow of commerce between countries (Zacher & Keefe, 2008:6).

The ISR, also referred to as the International Sanitary Conventions (ISC) at the time, aimed to prevent the spread of diseases of the Western World and to prevent restrictive quarantine controls that would impede the flow of commerce between countries. Awareness of disease outbreaks became another critical endeavour of the international community, to which end it was further decided at the same conference in which these regulations were deliberated that an international organisation be created to facilitate the distribution of information and knowledge-sharing on disease outbreaks (Zacher & Keefe, 2008:34). The result was the establishment of the first Office International d'Hygiene Publique (OIHP) in 1907.

At the same time a number of key state and interstate organisations had emerged that pushed the development of a global health regime in the first half of the century: from the Pan American Health Organisation, an international public health agency for Americans founded in 1902, to the OIHP established in Paris in 1907; this was the first international health organisation to operate worldwide that studied the outbreak of diseases and administrated various international conventions and distributed health-related data. While state actors were dominant in this health regime at the time, non-state actors began to enter the international community, most notably the Rockefeller Foundation in 1913, which set a precedent for the inclusion of non-state actors in this arena. The Rockefeller Foundation is an exemplary philanthropic and international foundation and has actively engaged with the health offices of various organisations.

In 1920, following the Paris Peace Conference at the end of World War I, the League of Nations (LoN) was founded with the mandate to maintain world peace; it called for greater disease control and broader surveillance of disease outbreaks through its establishment of a Health Committee and Health Section. Although comprised of 58 member states at its largest, the LoN failed to implement any real resolutions, made little if any progress on global health concerns, and was eventually dissolved in 1946. Replacing the LoN as the so-called centre of intergovernmental relations, the UN formally emerged in 1945 at the end of World War Two,

which saw international health work almost at a complete standstill. It was then decided that an organisation specifically dedicated to health be established and a conference to frame its constitution was convened; a Technical Preparatory Committee met one year later in Paris to draw up proposals for the constitutional framework, which was presented at the International Health Conference convened in New York a month later between 19 June-22 July 1946. It was at this conference that the constitution was adopted that later became the constitution of the WHO, as it was officially established in September 1948 along with its governing body the World Health Assembly (WHA) (Gómez-Dantés, 2003:319-320; Zacher & Keefe, 2008:34; Fischer, Kornblet & Katz, 2011:5; Kickbusch & Ivanova, 2013:14).

Explaining the consolidation of the WHO, Gómez-Dantés writes that:

> The new organization [the WHO] absorbed and unified all the existing health organizations into a single worldwide intergovernmental body with broad responsibilities and the power to adopt convections, agreements, and international regulations (Gómez-Dantés, 2003:320).

The WHO has been described as the normative hegemon of global health (Fidler, 2001:848; McInnes & Lee, 2012), whose constitution envisioned health as a fundamental human right for all and famously defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948). The idea of health as a fundamental human right was reiterated in the 1978 Alma-Ata Declaration that enshrined the principle of "*health for all by the year 2000.*" This was a bold yet profound statement for developments around GHG in the latter half of the 20th century, as it called for a collective vision that sought to achieve health equity for people across all countries, as well as for urgent cooperation among the many health actors towards dealing with the pressing health challenges of the time (MicInnes & Lee, 2012; Farmer et al., 2013:302).

Prior to the Health for All movement, the WHO launched a series of immunisation and eradication programmes, such as the Malaria Eradication Program of 1955, at a time when the idea of eradicating and controlling infectious disease was increasingly seen as an attainable goal through improved technology and medical advancements (Zacher & Keefe, 2008:8). At the same time, the WHA had consolidated the existing International Sanitary Conventions into a single text: The *International Sanitary Regulations* (ISR) (1951) (Fischer, Kornblet & Katz, 2011:5). In an attempt to fast-track progress toward immunisation and eradication, following a conference held at the Rockefeller Foundation Centre in Italy, the WHO and the UN Children Fund (UNICEF) launched the Expanded Program on Immunisation (EPI) in 1974 that set out to further eradicate poliomyelitis and vaccinate 80 percent of the world's children against various diseases. The aforementioned EPI successfully prevented more than three million

deaths from diseases such as measles, tetanus and tuberculosis (TB) by the 1990s; it was replaced by yet another coalition between several global health leaders at the turn of the century: The Global Alliance for Vaccines and Immunization (GAVI), which was a partnership between both public and private sectors (ranging from the WHO and UNICEF, to the Bill & Melinda Gates Foundation) (Gómez-Dantés, 2003:321-323).

In addition to immunisation programmes, the eradication of smallpox became an actual reality unlike the case of malaria. After infecting millions of people worldwide throughout the 1960s, smallpox was declared eradicated by the WHO in its 33rd WHA in Geneva on May 8th, 1980:

> The world and all its people have won freedom from smallpox…[and] calls this unprecedented achievement in the history of public health to the attention of all nations, which by their collective action have freed mankind of this ancient scourge (WHO, 1980).

The eradication of smallpox signifies one of the greatest milestones not only for the WHO, but also for GHG – both re-affirming the WHO's role as the primary global health leader (Gómez-Dantés, 2003:322) and setting a precedent for optimism within the international community in tackling problems of global health. However, other scholars correctly noted that, despite this justly praised development in global health:

> … the scope of the cooperation through the 1980s must be viewed as quite modest when seen from the perspective of the magnitude and significance of the problems (Zacher & Keefe, 2008:41).

The eradication of smallpox came at a time when the WHO's role as the unquestionable global health leader had diminished quite significantly, as it faced serious performance pitfalls and budget deficits. Mainly because of an overcrowded, disconnected health institutional regime – including the WHO regional offices, the UN and its specialised agencies and programmes, and multilateral development banks – cracks had begun to appear among the leadership of the WHO in managing cooperation for effective disease control (Brown, Cueto & Fee, 2006:62). At the same time, emergent infectious disease threats had grown to a significant degree, while the global health regime tried its best to keep up. By this time, the WHO's ISR had become the IHR (1969) and was under intense scrutiny, particularly given the Ebola outbreak in 1995 across central Africa (Fischer, Kornblet & Katz, 2011:5). More detail on the IHRs will be provided in the following section.

As a further example of disease threat, human immunodeficiency virus, acquired immunodeficiency syndrome (HIV/AIDS), typically treated as a disease of developing countries, made its first appearance in the first world in 1981. Moreover, HIV infections had

continued to rise particularly across Africa, which called for new partnerships to combat the disease more effectively – for example, the United Nations AIDS Program (UNAIDS) had replaced the Global Program on AIDS in 1996 as a means to draw in even more experience, collaboration and coordination from UN agencies (Gómez-Dantés, 2003:325; Zacher & Keefe, 2008). In most cases in Africa the structural adjustment policies that had been implemented as a means to help their economies catch up with the rest of the world exacerbated the situation in a number of ways, including economic crises, debt repayment, lack of good governance, political unrest, as well as emergent environmental pressures. According to a publication from the WHO's Maximising Positive Synergies Collaborative Group (2009:2137), these challenges tended to result in cuts across public health spending, thus limiting the amount spent on various disease-fighting initiatives.

Indeed, in the 20th century, there was an overcrowded institutional health regime that demanded some kind of reinvention in order to meet the pressing health challenges facing the global economy. Ng and Ruger argue that, regardless of partnerships that set out to improve the way in which GHG was implemented in the 20th century, there has been a continuation of:

> …decades-old problems of insufficient coordination, the pursuit of national and organizational self-interest, inadequate participation by the recipients and targets of aid, and sheer lack of resources (Ng & Ruger, 2011:17).

They go on to call for a new way forward to what they refer to as *shared* health governance, but investigating that aspect more closely is beyond the scope of this research (Ng & Ruger, 2011). Nevertheless, in comparison to the 19th century, GHG changed dramatically in size and complexity during the latter part of the 20th century, as summed up quite nicely by McInnes and Lee:

> By the early 1990s, it was not the end of the Cold War that appears to have prompted change in the relationship between health and foreign policy, although events may have provided a permissive atmosphere for a different relationship. Rather, globalization and the inter- connectedness of health issues in a global village was identified as the key agent of change (McInnes & Lee, 2012:52).

Continued evolution: the emergence of normative frameworks

Various normative frameworks have been implemented to advance more effective coordination of efforts towards managing global health concerns among countries: the MDGs/SDGs and the IHRs, both of which played a key role in guiding national agendas towards GHG. The emergence and evolution of MDGs/SDGs and the IHRs are discussed below.

The MDGs & SDGs

The MDGs and SDGs play an important role in monitoring countries' progress towards development, including development towards *good health*. These development goals then could not be ignored as providing a globally endorsed normative framework for global health. The MDGs were established out of a process that began in the 1990s. The UNDPs first *Human Development Report* is often considered a pivotal moment in advancing the global development initiative of the MDGs. What this report aimed to do was to explicitly shift the paradigm of the UN's development agenda from an economic focus to a more *human*-focused emphasised growth:

> People are the real wealth of a nation. The basic objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives. This may appear to be a simple truth. But it is often forgotten in the mediate concern with the accumulation of commodities and financial wealth (UNDP, 1990:9).

Stemming from human-centred development conversations, conferences and reports, and in the final few years of the 1990s, the MDGs were established at the turn of the millennium. The MDGs have been described as showcasing unprecedented global unity as the world's first set of common development goals (Loewe, 2012; Solberg, 2015:58). Following the adoption of the UNs Millennium Declaration at the Millennium Summit in September 2000, former UN Secretary General, Kofi Annan, wrote these eight objectives with a deadline for the year 2015 in support of the Declaration (see Box 1) (Loewe, 2012; Woodbridge, 2015:2). Each of the Goals was designed to target diverse areas within the sphere of development, such as poverty, health, education, the environment, and equality, and were accompanied by specific sub-goals measurable by a total of 48 indicators.

The Millennium Development Goals

1. Eradicate Extreme Poverty and End Hunger
2. Achieve Universal Primary Education
3. Promote Gender Equality and Empower Women
4. Reduce Child Mortality
5. Improve Maternal Health
6. Combatting HIV/AIDS, Malaria, and other Diseases
7. Ensure Environmental Sustainability
8. Develop a Global Partnership for Development

Box 2.1: The MDGs

These Goals emphasised the particular period in which reducing extreme poverty was made a crucial global effort. Health, in particular, plays an active role in all eight of the MDGs. For

example, MDG4 (on reducing child mortality rates), MDG5 (on improving overall maternal health) and MDG6 (on combatting the spread of HIV/AIDS and malaria), all directly speak to health issues. Less directly, MDG1, on the eradication of extreme poverty and hunger, can indirectly improve human health by making individuals being more financially able to access medication and hospital care, as well as by remaining nourished with the means to afford food (Farmer et al., 2013:304). However, the effectiveness of the MDGs remains a matter of considerable debate nevertheless, on MDG1, its highlighted success is in reducing poverty by more than 50 percent globally by 2015. At the end of their period, the MDGs needed a revamp and were henceforth built upon in order to speak to a new set of development goals for the next 15 years, otherwise referred to as the *2030 Agenda for Sustainable Development* (Woodbridge, 2015:1-2).

The UN Conference on Sustainable Development (UNCSD) held in Rio in 2012 (also known as *Rio+20*) was the third international conference on sustainable development in this new development agenda. An outcome document, *The Future We Want,* laid the basis for the establishment of an Open Working Group that, in July 2014, proposed a total of 17 goals with 169 measurable targets (Monkelbaan, 2019:4). In September 2015 the UN held a Summit at their headquarters in New York City where they adopted the post-2015 development agenda for the year 2030: the SDGs. One month before this, a draft resolution submitted by the UN General Assembly (UNGA) stated:

> This is an Agenda of unprecedented scope and significance. It is accepted by all countries and is applicable to all, taking into account different national realities, capacities and levels of development and respecting national policies and priorities. These are universal goals and targets which involve the entire world, developed and developing countries alike. They are integrated and indivisible and balance the three dimensions of sustainable development (UNGA, 2015:3).

The outcome document of the September 2015 UN Summit was titled *Transforming Our World: the 2030 Agenda for Sustainable Development,* in which it announced the adoption of the 17 closely interconnected SDGs, including many themes such as addressing climate change, strengthening global institutions, and engaging stakeholders at all levels of governance.

> In these goals and targets, we are setting out a supremely ambitious and transformational vision. We envisage a world free of poverty, hunger, disease and want, where all life can thrive. We envisage a world free of fear and violence. A world with universal literacy. A world with equitable and universal access to quality education at

> all levels, to health care and social protection, where physical, mental and social well-being are assured (UNGA, 2015:3).

In comparison to the MDGs, according to Monkelbaan (2019:4), the SDGs agenda (see Box 2.2) is far more comprehensive and universal, including a greater *environmental* dimension, and all 193 UN member states are committed to achieving these written goals. In his comparison, Monkelbaan goes on to say that:

> The SDGs are also much more integrated; the linkages between different goals and targets are both implicit and explicit. For example, some targets relating to thematic areas such as health are not only listed under their namesake Goal (SDG 3 on healthy lives and well-being), but across other as well. The SDGs are in fact so integrated that they could be seen as a 'network of targets' (Monkelbaan, 2019:4).

In a similar fashion, the WHO (2016:30) stated that "progress in one area is dependent upon progress in many others" as all of the SDGs are "integrated and indivisible." The very creation of the SDGs involved a myriad of actors and various interest groups, governments, civil society groups and experts. Having such a framework, according to Monkelbaan (2019:14), demands that this global governance be effective in two ways: through the goals that work within the SDG agenda itself (e.g., SDG 16 and 17) and for the deployment and achievement of all of the SDGs.

The Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals

Box 2.2: The SDGs

Like the MDGs, almost all of the SDGs are directly related to health or contribute indirectly to health in some way. As such, health is not treated as simply freedom from infirmity, but rather as an interacting phenomenon affecting many variables within the agenda. *SDG 3: Good health and well-being* was established specifically to address the health of all populations and groups, and is comprised of 13 targets and 26 proposed indicators, the largest number of proposed indicators of all of the 17 SDGs. SDG Target 3.3, for example, states that: "By 2030, end the

epidemics of AIDS, [TB], malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other [CDs]", and in doing so, interacting with, for example, the SDG6 on clean water and sanitation (WHO, 2016:29).

Moreover, and particularly relevant to this study, the post-2015 development agenda recognises the multitude of health problems that are associated with *the environment.* Hawkes and Buse write:

> …the SDGs are concerned with an extremely wide range of structural drivers, risk factors and diseases. Gone is the narrow focus of the MDGs with its overwhelming emphasis on maternal and child health and a small (but burdensome) number of infections. The SDGs, in contrast, reflect more of the epidemiological transitions that have occurred in the last 20 years and seek to address a much broader range of conditions limiting human well-being, including the non-communicable diseases, mental health, violence and environmental risks which contribute the bulk of the global burden of disease (Hawkes & Buse, 2016:338).

While this subject will be discussed in greater detail in Chapter 3, the core issue is noted here, an issue which a number of scholars have addressed (e.g., McMichael & Woodruff, 2005; Patz et al., 2005; Ford, 2012; McMichael, 2013), namely that the potential consequences of the mismanaged environment can impact negatively on populations, if not on all aspects of development, and *health is certainly no exception.*

The IHRs

The IHRs, in accordance with the research problem and question, critical to this research, have a nuanced and less than straightforward history than the MDGs/SDGs. The bulk of the information in this section is devoted to the history of the IHRs. As previously mentioned, the IHRs provide surveillance guidelines and a disaster risk-management toolkit for countries facing public health emergencies. The Regulations are further understood to provide a kind of international law (that entails legal obligations), which not only help countries take certain actions, where necessary, that will prevent the spread of infectious diseases, but also impose obligations that state report public health emergencies in accordance with a specific set of standards.

Prior to being known as the IHRs, the ISCs were first consolidated in 1903 and regarded as the first collaborative treaty established to regulate global health with a set of standardised guidelines. Zacher and Keefe provide a historical account and noted various features of the ISCs that had shifted throughout the first half of the 20th century:

> …the 1903 treaty included only regulations pertinent to cholera and plague, although yellow fever was added in 1912. In 1926, three diseases that were prevalent in both developed and developing worlds – relapsing fever, typhus, and smallpox – were added to the [ISCs]. However, the three original diseases that threatened the Western World (cholera, plague, and yellow fever) were given priority in most deliberations on the [ISCs] (Zacher & Keefe, 2008:6).

Conventions on the ISC were therefore to a large extent limited to specific infectious diseases, from including only cholera and the plague in 1903, to including cholera, the plague, yellow fever, typhus and smallpox by 1926 (Zacher & Keefe, 2008:7). The question of revising these conventions and agreements was first considered at the same International Health Conference held in 1946 when the WHO's constitution was presented, as well as again in October that same year, when the Interim Commission (set up prior to the WHO's official emergence) had emphasised the revision of the existing ISC as a matter of urgency (WHO, 1952:2). This revision, according to a leading international expert on infectious diseases, was a response to the procedural errors that were unable to keep up with globalising efforts of the time:

> The process of formulating rules by ad hoc treaty negotiations proved cumbersome, slow and resistant to amendments needed to account for changes in scientific knowledge and the speed, scope, volume and patterns of international trade (Fidler, 2005:332).

Consequently, some sort of universal recognition of the need for consolidation of these arrangements became necessary.

In the mid-20th century, the ISC, whose responsibilities were taken over by the WHO from the OIHP and the LoN, were eventually consolidated into a *single* text applicable to all transport matters, including sea, land and air traffic: the ISR (WHO, 1952:1-2). Despite difficulties in reaching a consensus, the ISR were eventually adopted unanimously by the WHO and its 67 member states at its Fourth WHA on 25 May 1951. Although containing crucial and various differences from the ISC, one part would remain the same:

> … [The ISR] should apply only to the six quarantinable diseases, i.e., relapsing fever and the five diseases (plague, cholera, yellow fever, smallpox and typhus) designated as pestilential under the former Sanitary Conventions (WHO, 1951:42).

The ISR officially entered into force in October 1952. The ISR document in its entirety, containing all official records up to the establishment of the regulations, totalled around 443 pages. As the spread of disease during trade activities provided a crucial impetus in decision-making of countries, the main principle worth noting that guided these new regulations was

documented as "the search for maximum security against international spread of disease with minimum interference with world traffic" (WHO, 1952).

More than 15 years later, in 1969, the ISR became the IHR. This version, when agreed upon by member states, provided a revised legal framework for notifying and responding to the same six quarantinable diseases. However, by the 1970s the understanding of and approaches to infectious disease had shifted dramatically, broadening what constituted the so-called, 'classic' infectious disease epidemics (the six quarantinable diseases) (Fidler, 2005; Harris, 2016:173-174). Fidler (2005) refers to the initial period of international diplomatic and legal work (the first International Sanitary Conference and their convened ISC) as the 'classic regime.' He goes on to say that understandings and approaches shifted dramatically as a result of numerous events at the time, such as the WHO's Health for All campaign, the creation of antibiotics and vaccines, new diseases, establishment of NGOs and research organisations, and, most significantly here, the emergence of environmental movements (Fidler, 2005). However, Fidler (2005:338) notes that the ISR and IHR made little, if any, contribution towards the eradication of smallpox. The issue of reforming the IHR (1969) therefore stemmed from its narrow scope (including only three diseases), its dependence on official country notification, and the lack of an internationally coordinated standard to contain the spread of infectious diseases.

Following the global eradication of smallpox in 1980, the IHR text was revisited and amended again in 1981, when smallpox was removed from the list of infectious diseases. In the final two decades of the 20th century, the threat of infectious diseases such as HIV/AIDS, malaria, TB and Ebola was indeed reaffirmed. As a response to this, the WHO formally addressed the need to update the IHR in 1995 when its Director-General, Dr Hiroshi Nakajima, was instructed by the WHA to begin the process of revision (Fidler, 2005:338-343). What had become clear was that minor modifications, such as adding or removing diseases from the list, was no longer viable. Drafting of the new IHR lasted up until 1998 when a Provisional IHR Draft replaced the 1995 Draft. In this version the vision of achieving an integrated and interconnected global governance was expressed, along with the realisation of the many factors associated with maintaining good health:

> …[The] new IHR contain a vision of integrated governance for global public health because proposals connect public health objectives with principles and norms found in international law on trade, human rights, environmental protection and security (Fidler, 2005:343).

However, despite continuous revision, a key challenge of the IHR recognised early on by the WHO was member states' failure to report in the event of an outbreak of infectious disease.

By failing to report, states were presumably acting to protect their own trade interests. In trying to correct these occurrences, the WHO came up with the following measures:

(1) To include a far broader scope of its surveillance system beyond just the state, constituting reporting from other reliable sources, agencies, NGOs, and info-technologies;
(2) New dispute-settlement mechanism was to be included within the 1998 Draft that dealt with member states who failed to interpret or apply the regulations as legally binding (called the Committee of Arbitration); and
(3) Launching the Global Outbreak Alert and Response Network (GOARN) in 2000 to further assist the WHO in global surveillance of infectious disease events through improved country investigation and info-tech (Fidler, 2005:345-358).

Targets to complete the Draft IHR were continuously moved to later dates due to discrepancies in its text, only to be accelerated after a ten-year revision period consisting of intergovernmental negotiations, pilot testing, regional consultations, re-evaluations, and in the wake of emerging infectious diseases, such as the severe acute respiratory syndrome (SARS) in 2003 (Fischer, Kornblet & Katz, 2011:8). By fast-tracking progress, agreement was finally reached on 14 May 2005 about the purpose and scope of the new IHR (2005), which was to:

> …prevent, protect against control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade (WHO, 2005:1).

The IHR (2005) officially entered into force two-years later on 15 June 2007. See Box 2.3 on *p.33* which provides a timeline of the developments of the IHR pushed by various events occurring within GHG and across the globe.

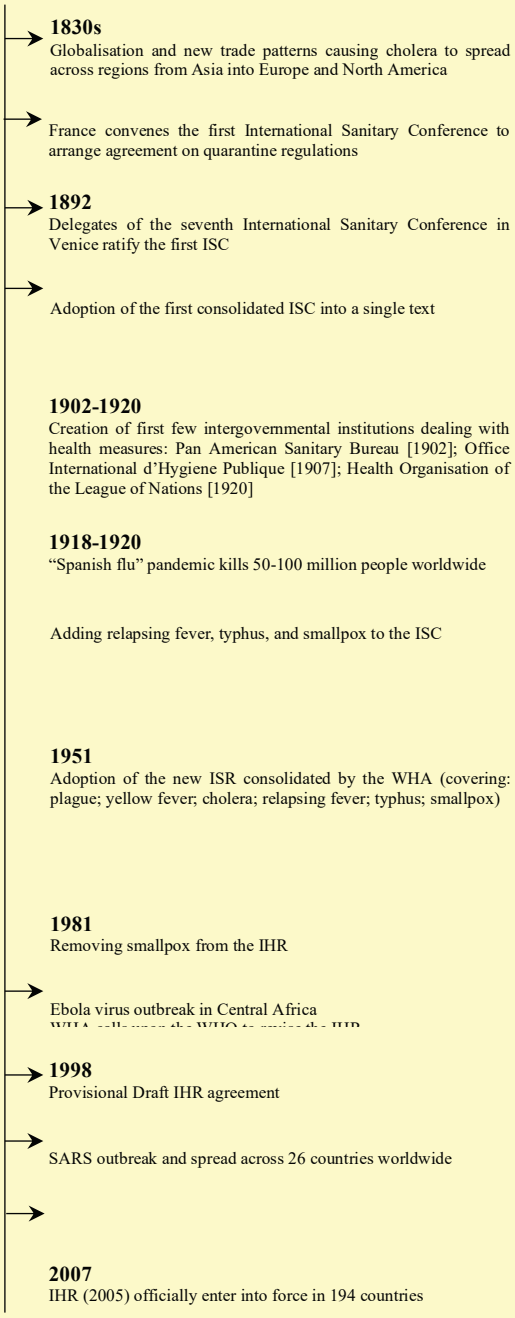
From a normative perspective, the painstaking revision process included a back-and-forth dialogue between issues that were both ideational and material, the latter being the SARS outbreak that prompted the process towards finalisation. Fischer, Kornblet and Katz (2011:8) rightfully assert that the revision process ultimately helped lay "the groundwork for a truly global disease detection network [and a] level of international public health cooperation." Now far more inclusive and broader in its inquiry, the IHR (2005) had a multi-hazard perspective on public health emergencies, enabling the WHO to prepare for, as well as to respond to, a wide range of public health events (to which natural/environmental disasters are indeed included). The full text of the IHR (2005) of around 74 pages outlines various and extensive procedures to be followed in the event of a public health emergency, including details on when

the WHO should be notified of such an event. In essence, the IHR (2005) require states to notify the WHO of any events that are classified as a "public health emergency of international concern", as well as to respond to requests for verification of such public health events. Perhaps the most significant additions to the new Regulations are the inclusion of any disease irrespective of origin or source, and the introduction of the concept of a *public health emergency of international concern* (PHEIC) (WHO; 2005).

While no longer the unquestioned hegemon of GHG, the WHO has, however, gained a certain global stature that positions it as the central repository of information in the face of disease outbreaks or public health emergencies (Davies & Youde, 2015). Rushton (2009:70) goes as far as calling the WHO's role as involving a considerable degree of "soft power" by positioning itself as the key actor in the global infectious disease surveillance system and defining its own terms. Nevertheless, despite the implementation of various measures by the WHO to manage disease and public health threat reporting, the failure to report public health emergencies is still an ongoing challenge. This was strongly reaffirmed in May 2020 by the US President, Donald Trump, who, annoyed by the WHO's response to the recent outbreak of the coronavirus disease, announced the end of the USA relationship with this global hegemon. However, a core function behind the recent IHR is to obligate member states to be proactive by supporting ongoing surveillance of public health emergencies with the further implication that countries should have the capacity to discover a disease or public health threat themselves and then notify the WHO accordingly. Since the IHR (2005) in particular, the WHO Secretariat has gone as far as permitting the receival of notifications of disease outbreaks from NGOs or unofficial sources of information.

The IHR (2005) have undergone two minor revisions since it entered into force in 2007, the most recent including an amendment to the texts' Annex 7 regarding the period of time allocated to protection from vaccinations against Yellow Fever (WHO, 2016). However, amid growing health problems, it has been argued by some that the Regulations require further restructuring. For example, some scholars have questioned the WHO's response to countries that are unable to adopt the IHR (2005) entirely due to insufficient funding and resources; "despite considerable progress, countries that are yet to implement the IHR (2005) core capacities may have insufficient human and financial resources to meet their obligations in the near future" (Suthar et al, 2018:116). That said, the WHO has developed various guidance mechanisms, workshops and toolkits to provide developing countries with the necessary professional training needed for greater country adaption. Nevertheless, particularly because of emerging and re-emerging infectious diseases and the growing concern of non-communicable diseases (NCDs), others have called upon the WHO to re-evaluate the IHR

(2005) to include a more effective dis h and deeper country adaption mechanisms (Wilson, Halabi & Gostin, 2020)



21st century: advancing global health determinants

Scholars have tended to agree on the rate at which globalisation advances the spread of infectious diseases, with particular attention devoted to the 21st century; e.g., Kirton and Cooper (2009:309) state that there is a growing "physical" challenge as the "globalising world

of the 21st century unfolds." As such, various infectious diseases (defined by the WHO as diseases caused by pathogenic microorganisms, such as bacteria, viruses or fungi, that can be spread directly or indirectly from human to human) pose a significant threat to populations in a world where crossing borders is a normalised and regular affair. In addition, more and more have scholars suggested that health determinants are expanding, whereby other diseases (not caused by pathogens, but rather by human induced threats such as lifestyle factors, gene mutations or environmental toxins) have surfaced as posing another significant threat to humankind. These types of un-infectious diseases then do not necessarily 'cross borders' in the traditional sense.

Amartya Sen, at the turn of the millennium stated in a presentation at the International Symposium on Human Security that:

> We live in a world that is not only full of dangers and threats, but also one where the nature of the adversities is better understood, scientific advances are more firm, and the economic and social assets that can counter these menaces are more extensive. Not only do we have more problems to face but we have more opportunities to deal with them (Sen, 2000).

As that said, despite the multitude of challenges facing the health of populations, the massive present and potential improvements to global health, whether from technical advancements or greater access to critical health knowledge, are undeniable. Various milestones have been noted in specific statistics, for example, according to the WHO's *World Health Report 2003: Shaping the Future* life expectancy had increased to 65.2 years by 2002, compared to the 46.5 years between 1950-1955. However, Sen (2000) further and rightfully asserts that many historical and emergent challenges are facing the global health system, to which that same 2003 WHO report refers to the "double burden" facing developing countries of CDs –an infectious disease that spreads directly from one person to another through a variety of ways – and NCDs– meaning a non-infectious disease or human condition (WHO, 2003:21).

On the one hand, a joint venture by UNAIDS and the WHO released a report stating that, in 2007 alone, AIDS (a CD) had contributed to more than two million deaths worldwide (UNAIDS & WHO, 2007:1). Furthermore, unlike the 'more recognisable' diseases in global health, Farmer et al. (2013:313) argue that there is an even greater threat from historically neglected tropical diseases, which have the potential of being aggravated by environmental factors, such as contaminated water, and have attracted far less funding and control strategies from the global health arena. In fact, infectious diseases have indeed accounted for a significant proportion of the total deaths worldwide; around 26% in 2006 (Rushton, 2009:60).

The threat of infectious disease, particularly zoonotic diseases that spread from animals to humans, has continued to grow well into the 21st century. For example, much like the 2003 SARS epidemic and the most recent global health pandemic, known as COVID-19, was the sixth declared PHEIC concern by the WHO's Director General, Dr Tedros Adhanom Ghebreyesus, on 30 January 2020; other declared global public health emergencies by the WHO include swine flu (2009), polio (2014), zika (2016), and Ebola (2014 & 2015). The announcement of a global health emergency came after the fact that the disease had spread beyond its country of origin (China) to other countries across the globe (WHO, 2019).

On the other hand, the rate at which NCDs have flourished particularly in the 21st century, claiming 63% of all deaths worldwide in 2011, poses serious threats to the global health community (World Economic Forum, 2011:5). Mainly because the origins of NCDs are not always as straightforward, scientific and scholarly debate tends to revolve around potential sources of disease. For example, health scholars and medical scientists have looked at the relationship between excessive air pollution and/or poor living conditions and health, although this endeavour is usually less articulated in global health discourse. Moreover, sources behind mental illness have been associated with natural disasters that have destroyed buildings and homes, leaving those affected individuals in complete despair. As mentioned in Chapter 1, environmental hazards are becoming more and more responsible for the total burden of disease worldwide (WHO, 2019).

As such, international organisations, such as the WHO, began positioning the environment in their global health agendas. First including climate change in 1990, the WHO published a 49-page preliminary assessment on the links between climate change and human health: *Potential health effects of climate change* (1990). Particularly situating health at the heart of climate change discussions, the WHO further wrote several objectives in its 2009 Action Plan towards developing health measures that are integrated into national plans of action for climate change adaption. For example, one objective emphasised the issue of ambiguity and henceforth called for further research and greater scientific evidence on the climate change impact on human health (WHO, 2009). Moreover, the WHO has designed numerous training courses, guidance reports and country workshops on protecting human health from climate change; for example, *Training course for public health professionals on protecting our health from climate change* (2011), and *Operational Framework for Building Climate Resilient Health Systems* (2015).

As issues relating to global health and the environment are becoming increasingly difficult to separate, improved global health governance has been addressed in the 21st-century health discourse that emphasises the need to respond to this ambiguous relationship and advancing determinants of health. A seminal publication worth noting here is a joint venture between the

Rockefeller Foundation and the Lancet Commission in 2015 titled *Safeguarding Human Health in the Anthropocene Epoch: Report of the Rockefeller Foundation-Lancet Commission on Planetary Health*, in which they call for the adoption of PH. They define the concept of PH as:

> …the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems – political, economic, and social – that shape the future of humanity and the Earth's natural systems that define the safe environmental limits within which humanity can flourish. Put simply, planetary health is the health of human civilisation and the state of the natural systems on which it depends (Whitmee et al. 2015:1978).

Progress towards PH, or rather a more consolidated and inclusive 'PHG' (planetary health governance), should then address the question of how best to protect and promote human health and wellbeing while in the Anthropocene epoch. Other strategies have come to the fore in the last two years, particularly the recent draft report by the WHO's Director-General dated 5 December 2018, who recognised the growing need for a global strategy for the health community (or GHG) on how to respond to "environmental health risks and challenges until the year 2030": *Global Strategy on Health, Environment and Climate Change.* The impact of environmental effects such as climate change on social and environmental health determinants ultimately became increasingly apparent in recent years.

Managing these complexities, GHG today consists of a unique interplay between various, sometimes competing, global health actors that are spread out amongst their respective sectors. Kirton and Cooper (2019:314) went as far as stating that in dealing with disease outbreaks "rarely are these actors all active at the start or at the end." Table 2.1 on the following page provides an illustration of *some* examples of key global health actors as they exist across four sectors; nation states, multilateral organisations, NGOs and the private sector. Other global health actors not mentioned are also present and should not be treated as non-important players. The table is followed by Figure 2.2, which attempts to illustrate the transition of GHG from international to global health from the 19th to the 21st century, when globalisation advanced, health determinants expanded, and the number of global health actors increased.

Table 2.1

Major Global Health Actors in the 21st Century

1. Nation States:	2. Multilateral Organisations:

Top 5 donors (2016): - United States - United Kingdom - Germany - France - Japan **Top 5 recipients of aid (2002-2007):** - India - Ethiopia - Uganda - Nigeria - Tanzania	**United Nations Organisations:** - World Health Organization (WHO) - United Nations Children's Fund (UNICEF) - United Nations Development Program (UNDP) - United Nations Fund for Population Activities (UNFPA) - United Nations Programme on HIV/AIDS (UNAIDS) **Others:** - World Trade Organisation (WTO) - World Bank - International Monetary Fund (IMF) - Group of Twenty (G20) - European Commission - The Global Fund to Fight AIDS, Tuberculosis and Malaria
3. NGOs:	**4. Private Sector:**
- Save the Children - Partners in Health - Rotary International - Red Cross and Red Crescent Societies - Helen Keller International - Catholic Relief Services - Christian Health Association of Malawi - Bangladesh Royal Advancement Committee - International Trachoma Initiative - International Life Science Institute - Doctors without Borders - EcoHealth Alliance	**Philanthropic Foundations:** - Bill and Melinda Gates Foundation - Edna McConnell Clark Foundation - Rockefeller Foundation - Clinton Foundation - Bloomberg Initiative **Industries:** - Pharmaceutical companies (e.g., Merck, Pfizer) - Tobacco companies (e.g., Philip Morris, Japan Tobacco) - Food companies (e.g., BASF, DuPont)

Table 2.1: Major Global Health Actors in the 21st Century (Source updated from: Ng & Ruger, 2011:19).

Figure 2.2

The Transition from International to Global Health

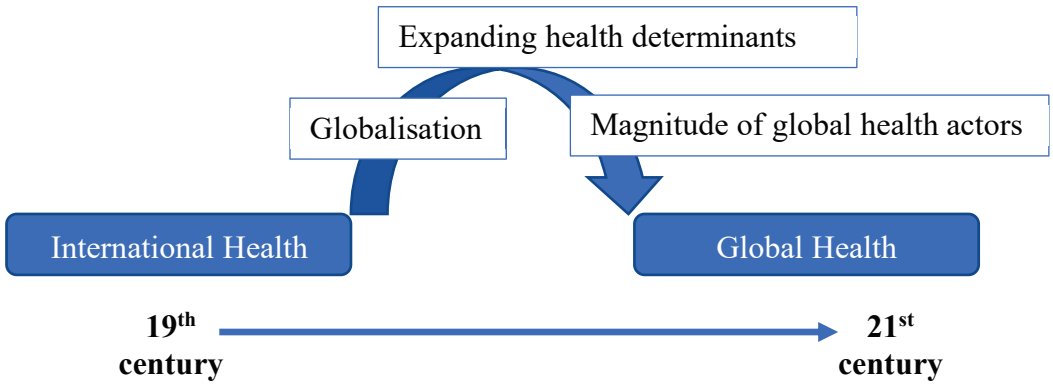


Figure 2.2: The Transition from International to Global Health (Source: Author).

Health and IR

It has become clear that global health includes a myriad of actors and determinants that have no doubt generated a corresponding plurality in scholarly and practical fields relevant to the study of global health. Given its complexity, global health has infiltrated the realm of IR, to which both fields have discovered much common ground and interest. However, despite submerging both their academic and policy worlds into global health (and its counterpart GHG), the association between health and IR is by no means straightforward. The fact of this dubious relationship has been consistent across numerous publications authored by, for example, Davies (2010), McInnes & Lee (2012), and Youde (2012), to name a few. It would be interesting, therefore, to address particular contributions in IR scholarship that work to better understand global dimensions of health in contemporary world politics.

According to Cynthia Weber (2005:2), an esteemed IR Theory Professor, "we use IR theory to make sense of the world of international politics." She goes on to explain that IR theory itself, which is a collection of various and competing traditions that rely on so-called "IR myths," tells a story from the respective 'myths' point of view. An IR myth is an "apparent truth" that is generally accepted by the theorist whose perspective aligns with that very myth and, therefore, the IR tradition or *theory* (Weber, 2005:2-6). Constructivists, for example, are associated with the myth that "anarchy is what the states make of it" meaning that state interests and identities are not of a pre-given nature, discussed in greater detail, along with the histories behind IR Theory, in Chapter 4.

Two or three decades ago, health did not have a place in IR the way it does today (Thomas, 1989) primarily because both health and IR have been regarded as fields in a constant state of flux:

> Both, as multidisciplinary fields, continue to struggle with questions of identity, of what they are – and are not – concerned with. Both, in practice, also struggle with a world of ever greater complexity and interconnectedness. Two distinct fields have thus been brought together in the early twenty-first century by the development of shared concerns, of uncertain disciplinary boundaries, and of a mutual need for more effective policies in a changed and changing world (McInnes & Lee, 2012:1-2).

Earlier considerations have often overlooked the relationship between health and IR as a matter of the distinction between *high* and *low* politics, where the latter tends to find itself more dominant for global health. In IR, *high* politics has a lot to do with a nation-states foreign policy which emphasises state security – i.e., doing that which is imperative for the survival of the state in comparison to other states residing within the international system (Barnett, 1990:531).

Low politics, however, is understood to include instead 'secondary' concerns to the state security, such as "economic and social affairs" (Keohane & Nye, 2011:19). The implications of this is that global health, as the unit of analysis, "appeared to scholars as a domestic concern largely unrelated to matters of national security" (McInnes & Lee, 2012:26). But, as Davies et al., writes:

> There is a growing awareness that – like many international environmental issues – pressing global health challenges transcend national borders, and because of their centrality to human and societal well-being, they generate a sustained political demand for more concerted international responses (Davies et al., 2014:2).

This concerted or collective effort to respond to pressing global health issues found itself at the forefront of discussions in more recent years. The IHRs, for example, rather than being presented in a traditional state-centric security framework, focus instead on *collective* security, with global, collaborated responses to pandemics as critical. As such, one prominent link between health and IR is a shared emphasis on security.

Other scholars, such as Sara E. Davies in her 2010 contribution, outlines two ways to understand health in IR: the 'statist' approach that is heavily dependent on traditional security studies; and the 'globalist' approach that has a lot to do with the well-being and rights of individuals. Many scholars (e.g., Ng & Riger, 2011; McInnes & Lee. 2012) have prompted the latter approach by discussing the global discipline of health in IR through the human rights subject. The conversation of the global health agenda in IR is then to discuss the relationship between health and security of people and nation-states.

Health and security

The global security regime cannot be overlooked in the study of health and IR, particularly because (1) diseases will never stop threatening human health, and (2) because collective governance of disease is an essential activity to which the IHR (2005) provide the most recent attempt at. As such, framing global health concerns in a security discourse was important for the WHO's secretariat garnering support for the new IHR. Furthermore, the very transition from the ISR to the IHR have been described by Fidler (2005) as a shift towards *global health security.* He defines global health security as:

> …one in which governments, intergovernmental organizations and non-State actors collaborate in a new way of working by contributing toward a common goal through science, technology and law rather than through anarchical competition of power (Fidler, 2005:392).

But, the link between health and security is not new to IR. According to McInnes and Lee (2012:130), health has traditionally been associated, quite narrowly, with security in terms of armed conflict. The spread of infectious disease among armed forces is one known traditional emphasis, as well as the fact that armed conflict directly results in casualties and can further, indirectly, affect the provision of health via mass destruction of existing infrastructure (e.g., hospitals or distribution mechanisms of medicine). According to King and Murray (2001-2002:585), health and security linkages can be traced back to the 1990s when the two dominant strands of foreign policy – *economic* and *military security* – began to converge.

In the 21st century, interests in global health security and its referrals grew into major focus, as reflected in the *World Health Report* of 2007 which defined global (public) health security as:

> …the activities required, both proactive and reactive, to minimize vulnerability to acute public health events that endanger the collective health of national populations. Global public health security widens this definition to include acute public health events that endanger the collective health of populations living across geographical regions and international boundaries (WHO, 2007).

Despite this definition, there is ambiguity and a plethora of meanings attached (McInnes, 2015), to which the concept will almost forever be contested, much like other security topics (Buzan, 1991). Rushton (2011:782), however, disagrees with this sentiment and suggests that a broad consensus over three common characteristics associated with health security exist that typically emerge in policy documents: (1) the familiar fact that infectious disease fast-spreads in a globalised world; (2) the increasing concern that pathogens (i.e., bacterium or virus) may be weaponised – also known as 'bioterrorism'; and (3) that the burden of specific infectious disease can threaten the very stability of a state via its social, political, economic and military impacts. All three of which have proven to dominate various and relevant policy reports, best noted in the established IHR (2005). Expanding on health and security, although brief, will be done through two security lenses: the emergence and evolution of *state* versus *human* security.

State security

State security is a far more traditional, and easily succumbed to, perspective of IR theory. As discussed on traditional emphases of health and security, it tended to refer to armed conflict and the threat this posed upon both armed forces:

> Historically, in the West, disease was often seen as an impediment to exploration and a challenge to winning a war. Cholera and other diseases killed at least three times more soldiers in the Crimean War than did the actual conflict. Malaria, measles, mumps,

> smallpox and typhoid felled more combatants than did bullets in the American civil war (Brundtland, 2003:417).

That being said, and in addition to the threat of armed forces, the prevention and control of infectious disease, according to Fidler (2003:790), has also been associated with the "foreign policy concern of states." He goes on to distinguish the, sometimes overlapping and highly contested activity of health security scholars, differences between national and public health security. The latter of which is expanded briefly in the human security approach below.

The point of inception for a security-based global health paradigm, according to several authors (e.g., Davies et al, 2015; Weir, 2015), can be traced back to a publication from the United States' Institute of Medicine (IOM) in 1992, *Emerging Infections: Microbrial Threats to Health in the United States* (Lederberg, Shope & Oaks, 1992). This publication emphasised the novel concept of *emerging infectious diseases* (later to be re-conceptualised as *emerging communicable diseases* (ECDs) by the WHO in 1996). The IOM's 1992 report, and other subsequent discourse, positioned infectious diseases as national threats, regarded a significant step towards the securitisation of health both domestically and globally (Weir, 2015). Concerned with their national self-interests, states work to ensure foreign policy aligns with protecting themselves in its global (more realist) political endeavour of power politics.

Following from the above interpretations, global health security was indeed originally situated in statist discourse. However, with the decline of military prevalence following the collapse of the Soviet Union in 1989, the concept of security came under question as referring to a wider range of "people-centred aspects." These debates, in line with what Fidler (2005) argues behind the ISR-IHR paradigm shift, led to considering security from a more globally inclined perspective, thus denoting a move away from the state-centric approach: global health security and the emergence of human security (King & Murray, 2001-2002:588; Fidler, 2005).

Human security

This approach is often overlooked as the threat of the spread of disease that alludes territorial integrity tends to overwhelm health discussions within the discipline of IR. However, "central notions of justice, equity, efficiency and order are involved" as much as statist perspectives (Davies, 2010:1180). Human security's roots lie within classical liberals' emphasis on the individual as the most referent object. The previously mentioned *Human Development Report* of 1990 that placed emphasis on human focused growth, with the eventual emergence of the MDGs, further developed in its succeeding 1994 report the idea on security that has:

> … far too long been interpreted narrowly… Forgotten were the legitimate concerns of ordinary people who sought security in their daily lives… For many of them, security

> symbolized protection from the threat of disease, hunger, unemployment, crime, social conflict, political repression and environmental hazards… For most people, a feeling of insecurity arises more from worries about daily life than from the dread of a cataclysmic world event (UNDP, 1994:22).

The central idea here, as reflected by McInnes and Lee (2012: 141), is that "human security is strongly linked to the promotion of human rights, often explicitly so" and that there is this simple but "radical idea that people matter." This has been liaised among many, as fostered by the UNDP, as essentially meaning *freedom from want* and *freedom from fear,* as well as emphasised within the WHO's *Health for All* campaign, which called for the undisputed and international human right to health around 20 years prior. The source of fear as being from internal or external threats is then irrelevant in a human security perspective.

As its counterpart [state security] emphasises the preservation of the state and its respective institutions by responding to only external threats, human security rather emphasises the risks pertaining to the individuals residing within the state [whether the threats are internally or externally realised]. On these threats Newman writes:

> … for most people in the world, the much greater threats to security come from disease, hunger, environmental contamination, street crime, or even domestic violence. And for others, a greater threat may come from their own state itself, rather than from an 'external' adversary ... international security defined – territorial integrity – does not necessarily correlate with human security, and [an] overemphasis upon statist security can be to the detriment of human welfare needs (Newman, 2001: 240).

McInnes and Lee (2012:142) agree that the risks facing individuals are far more complex under human security perspectives as they arise from both the "interconnectedness and multiplicity" of risks other than just the threat of militarised violence.

However, McInnes and Lee (2012:146), rightfully assert that human security "has not had the impact in both policy and academic circles which its proponents had hoped for." As formulated by the UNDP, it has in-fact been criticised by many (e.g., Kind & Murray, 2001-2002:591) as being far too broad within its referral, implicating its efforts as a useful construct for security and foreign policy as it refers "virtually [to] any kind of unexpected or irregular discomfort [that] could conceivably constitute a threat to one's human security" (Paris, 2001:89). The table below indicates key differences between state and human security approaches to health, of which this basic outline can further be applied neatly to understandings of security in IR.

(See Table 2.2 on the following page)

Table 2.2

State versus Human Security Approaches to Health

	State security	Human security
Referent	*The state*	*The individual*
Actors	The state as the sole actor, including those [institutions] that empower the state	Broader participation of actors vis-à-vis regional and international organisations, NGOs and communities
Ethos	Self-protection and defence against external threats	People-centred approach
Response	Limiting cross-border spread of disease through built up military and national defence	Human rights as overarching response, and limiting disease outright

Table 2.2: State verses Human Security Approaches to Health (Source: Author).

Conclusion

This chapter has given an historical account of the emergence and evolution of GHG to contextualise the research problem, research question and its subsequent questions. It first provided definitions of the terminology underpinning this section and thesis (global governance; global versus international health; GHG). It then contextualised the emergence and evolution of GHG in a globalising era by drawing attention to numerous events, international negotiations and publications that bear witness to the transformation of global health from the 19th to 21st century. It further examined the emergence and evolution of the IHRs, which transformed along with GHG to provide a convention and framework to respond to the outbreak of diseases. Furthermore, accounts by numerous scholars highlighted that health is understood in IR as a security issue to both countries and individuals. Most significant, the environment was introduced as a human health issue, such as the human-induced dilemma of climate change as posing some of the greatest public health threats in the 21st century. It would therefore appear that climate change has in fact presented itself in GHG. The global politics behind climate change will be addressed in more detail in the following chapter on the emergence and evolution of GEG.

Chapter 3
The emergence and evolution of Global Environmental Governance

Introduction

The previous chapter provided a literature and historical review of GHG, whereas the purpose of this chapter is to describe the emergence and evolution of GEG. According to Peter Dauvergne (2005:11), "the history of research on global environmental politics is woven into the history of global environmental change." The association between an ever-growing population and the patterns of globalisation with a changing, deteriorating natural environment is becoming increasingly conspicuous. Climate change, for example, has not only been regarded as one of the worst disasters facing humanity, but human activity itself has been called out as accelerating its effects. Winchester in his *Emerging Global Environmental Governance* book puts environmental issues into perspective as he outlines GEG's emergence and transformation into the 21st century:

> Throughout human history the impact of the environment on people has been greater than the impact of people on the environment. Communities and even entire civilizations have collapsed under the weight of environmental stress, natural and man-made. Only recently, however, as the population has grown exponentially, have the day-to-day decisions of billions of human beings begun affecting environmental conditions on a global scale (Winchester, 2009:7).

The new focus in IR on global environmental change, however, remains challenging to many spheres of global governance. The United Nations Environment Programme (UNEP) writes in its Global Environmental Outlook Report for the year 2000:

> The global human ecosystem is threatened by grave imbalances in productivity and in the distribution of goods and services… This unsustainable progression of extremes of wealth and poverty threatens the stability of the whole human system, and with it the global environment… Environmental gains from new technology and policies are being overtaken by the pace and scale of population growth and economic development. The processes of globalisation that are so strongly influencing social evolution need to be directed towards resolving rather than aggravating the series imbalances that divide the world today (UNEP, 1999).

Similar accounts of the Anthropocene have been given by political ecologists who study the relationship between the factors of daily life – such as political, economic and social issues – and various environmental issues and changes.

Chapter 3 has a similar structure to that of the previous chapter. It is divided into five sections. The first section provides an overview of the key scholarly definitions that underpin this chapter. This is followed by the main section on the emergence and evolution of GEG from the late 20th to the 21st century. It presents various key events that led to the inclusion of the environment on the global political agenda and introduces the concept of sustainable development. The third section looks specifically at climate change in GEG and presents various global negotiations and institutions that pushed for the global recognition of and response to the threat posed by climate change. This section is followed by a discussion on the environment in IR in section 4, which highlights development activities and globalisation as accelerating effects of climate change. The final section of this chapter presents and discusses various areas of convergence between GHG and GEG, whereby the relationship between climate change and human health bears witness; referred to as the *climate-health nexus*. Following from Chapter 2, Chapter 3 ultimately sets the remainder of the stage for solving the research problem and answering the research questions.

Terminology

For the sake of conceptual clarity, this section examines scholarly definitions of two key terms: GEG and political ecology. The latter concept has contributed significantly to the incorporation and diffusion of the environment in the global political agenda and IR as a field of study.

Global Environmental Governance

Paterson wrote in 1996 that the study of environmental problems:

> …must be located within the economic context of global capitalist accumulation (within which different economies find different modes of insertion) as well as within the more conventional political framework of the influence of social movements on states and the interstate politics of global environmental diplomacy (Paterson, 1996:159).

Like GHG, GEG is located within a complex web of political, societal and economic factors that tend to operate within the context of environmental change. O'Neill (2009:3-4), in her book *The Environment and International Relations,* defines GEG quite simply as consisting of "efforts by the international community to manage and solve shared environmental problems." However, despite a number of attempted definitions, much like other theories within the field of IR, there is no unified theory of GEG. Nevertheless, Young (2005), along with 35 other contributors (in Dauvergne, 2005) who sought to understand the politics behind the global environmental agenda, finds common ground amongst the assumptions which makeup GEG: he asserts that most scholars tend to be "united in assuming that the operation of institutions

accounts for a substantial proportion of the variance in human-environment relations" (Young, 2005:173). That is not to say that institutional dimensions are the only features of GEG, but they are rather important drivers in solving the global problems that arise because of human-environment relations.

In that same compilation (Dauvergne, 2005), Jordan, Wurzel and Zito argue that "environmental governance is at best a supplementing, and most certainly not comprehensively supplanting, government by regulatory means" (2005:215). They therefore imply that GEG entails some sort of engagement with various policy instruments and forms of regulation that are much like government endeavours (for example, setting greenhouse gas emission limits within states or for the global economy on the whole).

In line with Young and Jordan et al. (2005), Clapp and Dauvergne (2005) state that global environmental and development discourses, therefore, shape, and are shaped by, various institutional frameworks and policies. They contend that GEG, in a constant state of flux, will continue to be shaped by "globalisation and the global interaction of states, institutions, firms, markets, communities, and individuals" (Clapp & Dauvergne, 2005:81). This is an important realisation that is applicable not only to all theories referred to in this thesis, but to other existing and emergent IR theories.

Political ecology

Political ecology cannot be ignored as a dominant concept in environmental and green political thinking. The term *political ecology* had not fully developed until the late 1970s, particularly when environmental concerns stemming from rapid industrialisation and misguided development activities began to seep through the cracks into mainstream political debate.

Paul Robbins, a key writer on environmental change, presents a neat overview of the transformation of the concept of political ecology in his book *Political Ecology: A Critical Introduction* (2011). He correctly asserts that the concept "is a generous one that embraces a range of definitions," but that "there seems to be a set of common elements" (Robbins, 2011:14). He goes on to say that:

> …political ecology represents an explicit alternative to "apolitical" ecology, that it works from a common set of assumptions, and that it employs a reasonably consistent mode of explanation (Robbins, 2011:14).

The term has indeed taken on a variety of meanings that follow from a set of common assumptions about the way in which the world works. Adopting a historical perspective, Robbins (2011) starts with the definitions of Cockburn and Ridgeway in 1979 and then

examines the work of subsequent scholars up until 2000. Table 3.1 provides an overview of the key definitions in selected literature.

Table 3.1

The History of Definitions of Political Ecology

Source	Definition of 'political ecology'
Cockburn & Ridgeway (1979)	A useful way to describe radical movements intended to respond to environmental degradation in the industrialised countries of the West.
Blaikie & Brookfield (1987)	It combines ecological concerns with the political economy; on the extraction and overconsumption of natural resources with the means of production (specifically in exploited third-world economies).
Greenberg & Park (1994)	Links the distribution of power from the means of production with humanity's proclivity to humanise (dominate) nature.
Peets & Watts (1996)	The convergence of ecologically rooted social sciences and the principles behind the political economy, emphasising the tensions and contradictions of the "underproduction crisis."
Hempel (1996)	The study of the interdependence and interrelationships between "political units" and their environment, recognising the consequences of environmental degradation and scarcity.
Bryant and Bailey (1997)	Presents the issues behind 'third world legacies' that stem from colonial activity as being the sole motivation of third world countries' means of production and overconsumption of natural resources.
Watts (2000)	A way in which to understand the complex relations and persistent conflict between the natural environment and society by analysing power politics – access and control – over natural resources and the consequences thereof.
Scott & Sullivan (2000)	Recognises the absence of an alternative solution to industrialisation and development activities that cause environmental degradation, emphasising political dimensions within environmental and development discourse.

Table 3.1: The History of Definitions of Political Ecology (Source adapted from: Robbins, 2011:15-16).

Peet, Robbins and Watts (2011:30) concur with the many definitions and rightfully assert that these definitions tend to include nuances from three key themes: (1) framing the consequences of overconsumption and production, and the chase for capital "accumulation" and the "operations of market-based power" as environmental degradation; (2) linking struggles for environmental conservation with struggles of power and environmental control; and (3) "the on-going emergence" of new types of human production activities that produce both "environmental destruction" and "creative environmental alternatives." Attempting to find consensus, Robbins (2011) asserts that:

> …much political ecology is about evaluating and explaining environmental change as well as explaining and determining the impact of ideas about environmental change. As a result, the field faces several challenges in ecology, in social construction, and in explanation itself" (Robbins, 2011:100).

What can be said is that both the political economy and the natural world include variants that work towards the well-being of humanity, which political ecologists began to recognise as a co-dependency between health and the natural world.

GEG: emergence and evolution from the late 20th to the 21st century

The problematic human environment has almost always been a thought in humanity's everyday life, whether it be to meet more obvious needs to secure critical resources for survival such as food or firewood, or responding to natural disasters such as volcanic eruption or tidal waves. Along with the evolution of humanity, however, environmental concerns went beyond just dealing with simple matters of food and natural disasters. But green political narrative only began to emerge with international attention in the late 19th century, which highlighted the relationship between mass human consumption and the deterioration of the natural world. Eckersley (1992), Dauvergne (2005), Clapp and Dauvergne (2005), Winchester (2009) and O'Neill (2009), among others, rightfully assert that *global* environmental politics emerged in the late 1960s and early 1970s. The work of these scholars is emphasised throughout this section as they made important contributions to understanding the emergence and evolution of the environmental regime in global governance. This section is divided into three parts related to specific periods of global negotiations: namely *Before 1972: setting the stage*; *1972: the Stockholm Conference on the Human Environment*; and *The Earth Summit and beyond.*

Before 1972: setting the stage

Although there is some disagreement, scholars seem to be working towards a consensus on the significance of the 1972 UNCHE in Stockholm as a watershed moment for the emergence of GEG (Eckersley, 1992; Dauvergne, 2005; Winchester, 2009; O'Neill, 2009). Winchester (2009) sets the stage for GEG's emergence quite nicely. He describes the same International Sanitary Conferences convened from 1851 as also being the first conferences dealing with environmental issues, addressing topics such as water pollution, sanitation and the decline of coastal fisheries, made worse by human activity. With little resolution on these issues, however, environmental problems continued to grow well into the 1900s; he therefore notes that, despite acknowledging these threats, the scope for any serious progress towards GEG truly emerged only in the latter half of the 20th century (Winchester, 2009:8-9; see also Kennan,

1970; Eckersley, 1992; Dauvergne, 2005; Clapp & Dauvergne, 2005; Dauvergne, 2008; O'Neil, 2009).

Eckersley (1992) also draws attention to the 1960s as a watershed moment for GEG. She notes that the decade before the 1972 UNCHE in Stockholm marked the beginning of widespread concern over environmental degradation, particularly in the developed countries of the West. She claims that emerging environmental laws in the West, educational programmes on environmental studies, and discourses engaging with topics around environmental degradation were all factors in setting up the architecture behind GEG in the following decade. Mainly, when general green philosophy and green political parties diffused in the 1970s and 1980s the environment had entered mainstream political conversation (Eckersley, 1992:7-8). The widely cited study by Rachel Carson, *Silent Spring*, on the adverse environmental effects caused by the systematic, deliberate and enthusiastic human use of pesticides appeared in 1962. Her publication exposed the chemical industry in the USA (including public officials) for producing and passing misinformation on the damage caused by pesticides, the widespread use of dichloro-diphenyl tricholoreathane (DDT) in particular. Chapters within her book are devoted to human pesticide poisoning, arguing that these chemicals have contributed to various human illnesses such as lymphoid and liver cancers (Carson, 1962). The book was met with backlash from the industry, however, as her evidence was considered too ambiguous to believe, but nevertheless it sparked a powerful message on environmental destruction from human activity.

Marvin S. Soroos (2005) emphasises the seminal article "The Tragedy of the Commons", published in 1968 by Garrett Hardin, which also expressed concern about humanity's "proclivity" to abuse the natural environment. He argues that Hardin's essay appeared within the "first wave" of environmental concerns building up in the 1960s that paved the way for the emergence of GEG. Hardin's (1968) premise was that people act out of personal self-interest and relative gain, in that that they fail to recognise (or rather choose to ignore) the consequences of unprecedented environmental consumption and degradation – the impending "tragedy" that will run its course for the sake of personal gain. He uses a figurative, light-hearted story as a means to apply the lesson of the impending tragedy in national and global communities alike (Soroos, 2005). John Marburger, writing in the *Harvard International Review*, describes Hardin's work:

> "The Tragedy of the Commons," is much more than a description of the inevitable destruction of public, unregulated, and finite resources, a phenomenon well-known since ancient times. It also offers insights into how one might manage such resources and suggests an ethical approach relevant to the difficult problems of international responses to climate change (Marburger, 2008:48).

Many, although not all, environmental concerns conform to the dynamics behind the "tragedy of the commons," for example, polluted seas and over-fishing of marine life. Mentioned by both Soroos (2005) and Marburger (2008) above, climate change is yet another critical feature to have evolved as a global tragedy of the commons, although not explicitly mentioned in Hardin's essay. Climate change will be discussed in greater detail below.

These abovementioned hypotheses seemed to have gained the most traction in Western countries at the time. Sweden was the first country in the world to implement green legislation in its Environmental Protection Act 1967. Shortly after that the US legislature passed the National Environmental Policy Agency (NEPA), signed into law by President Richard Nixon in 1970. NEPA included a broad normative framework for environmental protection, whose basic policy is to ensure that all government divisions are giving the proper consideration to the environment when undertaking any major federal action. That same year President Nixon proposed the establishment of the Environmental Protection Agency (EPA) in 1970. The EPA focuses on researching the effect of various pollutants on the environment, on monitoring and measuring environmental conditions, both biologically and physically, as well as enforcing air and water quality standards in concert with other US states (Winchester, 2009).

Finally, Eckersley (1992:8) notes that the first 1970 Earth Day, which was held in the USA, sparked the beginning of an environmental movement among the general public who had already a growing consciousness of the survival of the planet. The idea behind the Earth Day concept was first put forward by a US Senator, Gaylord Nelson, in a conference on the environment held by the United Nations Educational, Scientific and Cultural Organisation in 1969. The actual day occurred as an environmental teach-in event that highlighted the need for a more coordinated international response for the sake of environmental protection. Norms behind environmental protection only officially started resonating in the broader international community two years later at the Stockholm Conference in 1972.

1972: the Stockholm Conference on the Human Environment

The 1972 UNCHE brought together representatives from 114 countries worldwide between 5-16 June. An agreement had already been reached among major groups of countries in the complex preparatory process, insofar that limited issues needed to be resolved at the Conference itself, where outputs were regarded a huge success for participating countries (Sohn, 1973:424). Several outputs included the adoption of a basic Declaration containing "common principles to inspire and guide the people of the world" (UNCHE, 1972), as well as a total of 109 strategy recommendations that were a compilation of those brought forward before and during the Stockholm Conference towards preserving and enhancing the natural

environment. Most notable was the decision to formally set up the UNEP charged with implementing and coordinating these 109 strategies (Sohn, 1973:423; Winchester, 2009:10; O'Neill, 2009:4).

One year later Louis B. Sohn analysed the Conference and its Declaration. His 90-page publication, *The Stockholm Declaration on the Human Environment,* became a widely sought-after text; it first gave an account of the preparation for the conference before undertaking an in-depth line-by-line analysis of the Declaration, which includes official statements and a total of 26 Principles. The Declaration proclaims first:

> "1. Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights the right to life itself" (UNCHE, 1972).

The Declaration proclaims thirdly that "man has constantly to sum up experience and go on discovering, inventing, creating, advancing", but if "wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment" – a potential tragedy already made clear in Hardin's thesis (UNCHE, 1972; Sohn, 1973).

Principle 21 in particular has been regarded by some (Tuholske & Foster, 2014: 676) as a very important and recurring principle that set a precedent for almost all other international environmental law:

> "States have, in accordance with the Charter of the United Nations and principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction" (UNCHE, 1972).

Principle 22 is closely linked with the above as it declares:

> "States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction" (UNCHE, 1972).

According to Sohn (1973:500-501), both Principles 21 and 22 provided states with the right to exploit natural resources within their own national boundaries as long as other states remain unaffected by their activities, as they have "the responsibility not to damage others in the course of exploitation activities and to develop new laws and procedures enabling the disputes to be settled if damage did occur" – an idea reaffirmed in the Rio Declaration of 1992 discussed below.

Moreover, and important to this research, is the statement relating to "other environmental damage." What this implied is that environmental damage caused by what Sohn calls "climate modification" that changes "the flow of ocean currents [and] melting the polar icecaps" was coming to the fore as an emergent global threat demanding coordinated international responses (Sohn, 1973:495). Fidler (2005:337) describes the 1972 UNCHE report as a pioneering document recognising the environmental impact as causing incalculable human harm, mainly due to the report's emphasis on reducing manmade threats (e.g., pollution) to both human health and the environment. The Declaration proclaims:

> The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments (UNCHE, 1972).

And Principle 7 declares:

> States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea (UNCHE, 1972).

What is important to note here is that this was the first official documented UN report to situate issues of the environment within health concerns. At this stage of GEG's emergence, the threat of NCDs such as cancer or diabetes came to the forefront. The scope of this research does not allow a comprehensive account of the Declaration (outlined by Sohn, 1973); nevertheless, the Conference and its outputs stand as a pivotal moment for GEG, as O'Neill (2009:8) rightfully asserts: "the 1972 Stockholm Conference ushered in a flurry of diplomatic activity coordinated by the new [UNEP]."

The Earth Summit and beyond

Following the 1972 Stockholm Conference, GEG has tended to consist primarily of negotiations and implementation of treaties and agreements pertaining to the environment, both internationally and multilaterally, by nation-states (and often coordinated by the UNEP) on an

issue-by-issue basis (Winchester, 2009:10). O'Neill (2009:5) refers to the period of international negotiations following from developments in 1972 as being strongly driven by "international diplomacy." The preparatory period preceding the Earth Summit confirms this, as it was already "unique in size, scope, level of participation, and process" (Grubb, 1993), and saw significant contributions towards ideas around enhancing the environment from governments and (unprecedentedly) NGOs. As it took place on the twentieth anniversary of the Stockholm Conference, the 1992 UNCED (the Earth Summit) was highly significant for both environmental and development spheres of global governance, showcasing their interconnectedness.

The Earth Summit had been the largest UN conference to date, made up of around 1,500 delegates from 178 member states, as well as a number of representatives from other sectors, namely NGOs, businesses, farmers and 'indigenous peoples' organisations' that attempted to influence conference declarations (Winchester, 2009:10). It was held 3 to 14 June and acted mainly to reaffirm and build upon the previously adopted 1972 Declaration. When adopted, the 1992 Declaration consisted of one more Principle than the previous document, totalling to 27 Principles that dealt with the rights and responsibilities of states on the promotion of the environment and, to a lesser extent, development. It further included greater emphasis on countries in the South, specifically on their right to develop (Clapp & Dauvergne, 1992:64-65).

Principle 2 of the 1992 Declaration appeared to be the only one that remained the same, reported in the previous section as being strongly reiterated in international environmental law (refer above to Principle 22, 1972). In effect, states' ability to exploit their own resources for their development as long as other states are not affected by these activities is reaffirmed early on. Among the other added or amended principles, Principle 1 states:

> Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature (UNCED, 1992).

This bears witness to the connection between human health and the natural world. Significantly, Principle 1 brings the notion of "sustainable development" to centre stage.

'Sustainable development', first introduced (although understated) in the Stockholm Declaration on sustainable consumption, is a critical concept underpinning the developments of environmental/development-focused politics. The concept was officially defined in a report set out by the World Commission on Environment and Development in 1987. Referred to as the Brundtland Commission, the report titled *Our Common Future* defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" and is a reference to achieving

"sustainability in all countries" (UNGA, 1987). This definition has been widely accepted and used in UN publications. It should be noted here that sustainability and sustainable development are not to be confused: sustainability is commonly understood as a destination or end state, whereas sustainable development is a means of getting there (Monkelbaan, 2019:9). However, as Kates et al. (2016) rightfully point out, there is no clear consensus on the meaning of the term.

Results of the Rio Conference included mainly the Declaration itself, along with a more detailed action plan – referred to as Agenda 21 – that "addresses pressing problems… and also aims at preparing the world for the challenges of the next century" (UNCED, 1992). This 300+ page plan laid out the basis for the 21 objectives and activities of nation states to promote sustainable development (combining both issues of development and the environment). Moreover, the Commission on Sustainable Development (CSD) was established, mandated by Agenda 21, with the responsibility to review and monitor its progress. The Conference also acted as a "trigger" to re-establish the Global Environmental Facility (GEF) of 1991 that set up financial initiatives for developing countries to better manage and protect the environment.

Most significant was the establishment of a legally binding international treaty on the environment, the UN Framework Convention on Climate Change (UNFCCC) that was opened for signatures at the Summit and entered into force two years later in 1994. The UNFCCC marked a crucial milestone for GEG towards climate change negotiations (Clapp & Dauvergne, 2005:64-65). Since its inception, issues of equity, fairness and justice have maintained a constant presence in global negotiations around climate change. This reshaped global governance as, according to Hilary French (2002) in her *Reshaping Global Governance*, it "ushered in a new era of global transnational citizen activism that is radically transforming the landscape of international diplomacy" (Gach, 2019), reaffirming what O'Neill (2009) said about international diplomacy. The Earth Summits continued well into the 21st century; however, the special session set up by UNGA five years later, known as Rio+5, found that the world had not met most goals set out in the Agenda. Notably, as Newell writes:

> It is not enough to study global actors and institutions that identify themselves as environmental in isolation from the global economic processes in which they are embedded and which ultimately they will have to regulate if they are to make a difference (Newell, 2005:200).

Nevertheless, Summits persisted, including the World Summit on Sustainable Development, or otherwise referred to as Rio+10 in 2002, and the following CSD or Rio+20 in 2012.

Clapp and Dauvergne (2005) outline the major initiatives of international environmental cooperation from the Stockholm Conference up until the Rio+10 Summit in 2002. Table 3.2 on the following page illustrates this array of Summits (Rio; Rio+5; Rio+10; including the Rio+20) that have been described in a recent publication as being crucial for environmental policy developments, having "greatly contributed to the development of international environmental law and environmental policy-making" that make up GEG (Savaşan, 2019:2). Set up as a timeline, Table 3.2 provides some of the major developments from the above-mentioned and also other conferences (including those dealing with pollution, climate change, and wildlife issues), on which key agreements were reached among countries across a 30-year period. Some of these initiatives dealing with climate change introduced here will be discussed in greater detail in the following section.

Table 3.2

Major Environmental Initiatives from 1972-2002

Date:	Initiative:
1972	*UNCHE* convened in Stockholm and the *Declaration* adopted.
1972	*Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter* (London Dumping Convention) adopted by 80 Parties (entered into force 1975).
1973	*International Convention for the Prevention of Pollution from Ships (MARPOL)* adopted by 125 Parties (entered into force 1983).
1973	*Convention on International Trade in Endangered Species* adopted by 162 Parties (entered into force 1975).
1973	Creation of the *UNEP*.
1979	*Convention of Long Range Transboundary Air Pollution* adopted by 49 Parties (entered into force 1983).
1979	*Convention on the Conservation of Migratory Species of Wild Animals* adopted by 84 Parties (entered into force 1983).
1982	*United Nations Convention on the Law of the Sea* adopted by 142 Parties (entered into force 1994).
1985	*Vienna Convention for the Protection of the Ozone Layer* adopted by 185 Parties (entered into force 1988).
1987	*Montreal Protocol on Substances That Deplete the Ozone Layer* adopted by 184 Parties (entered into force 1989).
1987	The Brundtland Report is published [*Our Common Future*].
1989	*The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* adopted by 158 Parties (entered into force 1992).
1991	*The Global Environment Facility (GEF)* established between 176 member states.

1992	*UNCED* convened in Rio and the Declaration and Agenda 21 adopted.
1992	*UNFCCC* adopted by 188 Parties (entered into force 1994).
1992	*United Nations Convention on Biological Diversity* adopted by 187 Parties (entered into force 1993).
1992	Creation of the *UNSCD* adopted by 53 member states.
1994	*International Convention to Combat Desertification* adopted by 187 Parties (entered into force 1996).
1997	*Kyoto Protocol on Climate Change* adopted by 120 Parties (not yet in force).
1998	The Rotterdam Convention on the Prior Informed Consent procedure for Certain Hazardous Chemicals and Pesticides in International Trade adopted by 56 Parties (entered into force 2004).
2000	*Cartagena Protocol on Biosafety* adopted by 51 Parties (entered into force 2003).
2001	*Stockholm Conference for the Elimination of the Persistent Organic Pollutants (POPs)* adopted by 43 Parties (entered into force 2004).
2002	*WSSD* held in Johannesburg, South Africa and the *Declaration* and *Plan of Implementation* adopted.

Table 3.2: Major Environmental Initiatives from 1972-2002 (Source: Clapp & Dauvergne, 2005:76-77).

Climate change politics, negotiations and frameworks

According to Winchester (2009:14), "climate change is arguably the most urgent environmental issue on the world's agenda," and therefore deserves specific attention. At the outset of the emerging environmental movements in the 1960s/1970s there was increasing recognition of humanity's role in the thinning of the ozone layer; a natural gas protecting the earth and all its inhabitants from harmful ultraviolet (UV) radiation from the sun that poses a serious threat to the planet and all its inhabitants. Positioning the threat of climate change within global politics, Lawton (2007:472) correctly asserts that environmental scientists and ecologists, who were termed "the bearers of bad tidings," played integral roles in framing the climate change dilemma. Seminal publications that framed this dilemma are introduced below before discussing key initiatives and negotiations that constitute the politics behind climate action under mainly the UNFCCC's agenda.

A scientific paper published in 1974, "Stratospheric sink for chlorofluoromethanes: Chlorine atom-catalysed destruction of ozone" by Sherwood Rowland and Mario J. Molina, seemed to gain the most traction in pushing the hypothesis of human-induced climate change (Winchester, 2009). The two scientists hypothesised in their two-page article that various gasses such as chlorofluorocarbons (CFCs) released into the atmosphere is posing a serious threat to humanity. The findings particularly emphasise human-produced chemical compounds, namely CFCs used in aerosol products, that have a destructive reaction with the

earth's ozone layer causing it to thin. With a depleting ozone layer, UV radiation from the Sun penetrates the Earth's surface, which UV radiation not only accelerates global warming, but also results in various human illnesses such as skin cancers (Rowland & Molina, 1974).

Rowland and Molina's evidence, in particular, was taken from the USA, as they found that the rate at which CFCs (used in, for example, hairsprays or various refrigerators) were being released into the atmosphere had increased by an average of 8.7% per year between 1961 and 1971. They further hypothesised that these emitted compounds known as CFCs are chemically inert, which means that they have the potential to remain in the earth's atmosphere for and between 40 and 150 years. They concluded that "it seems quite clear… that important consequences may result" whereby humanity and the natural world within which humanity resides deteriorates (Rowland & Molina, 1974). Other scholars (e.g., Bryson & Dittberner, 1976) at the time were motivated by the belief that global cooling would persist because of the decreasing temperature levels across the Northern Hemisphere over the previous three decades. Nevertheless, the recurring theme was human-induced global warming (according to a UNEP agency report authored by Le Treut et al., 2007). According to Winchester (2009:12), stemming from the report by Rowland and Molina, official climate discussions in the USA took place when its Congress held formal hearings in 1977.

Paterson (1996:24) agrees that the 1970s saw a surge in the acknowledgment of humanity's role in exacerbating climate change, but he argues that the turning point in understanding the extent of this was two specific studies undertaken by university professors, scientists and federal agencies in the USA, the first of which convened as conferences in 1970 that offered a similar hypothesis as Molina and Rowland had: the Study of Critical Environmental Problems (SCEP) attended by approximately 70 (expert) participants in 1970; and the Study of Man's Impact on the Climate (SMIC) report released as an output of SCEP that same year, including other background publications on SMIC in 1971. Both SCEP and SMIC were initiated and organised by Carrol L. Wilson, a professor at the Massachusetts Institute of Technology and expert in the relationship between science and politics (Paterson, 1996). Moreover, other publications mentioned earlier, such as Hardin's "The Tragedy of the Commons" (1968), did well to inform the wider public of an evolving global tragedy, raising issues which can resonate quite deeply with those concerned about human-induced climate change. Nevertheless, even though scholars had recognised the dilemma with the natural environment earlier, scientific discussions were intensified in the 1970s and framed a far less ambiguous understanding of climate change in particular and this exerted the most influence on the global political agenda on matters relating to the dilemma of climate change.

Downing and Kates (1982:268), who examined the international responses to the threats posed by CFCs to the atmosphere, correctly pointed out that Sweden was the first country in the world to ban CFCs used in aerosol propellants in 1977, effective in June 1979. Following Sweden, other countries followed with similar political agendas, such as the USA, which held its first official hearings in 1977 when the EPA proposed for a similar ban, coming into effect in 1978 (Downing & Kates, 1982; Winchester, 2009). Also significant to the emergence of climate change in global governance was the first World Climate Conference in Geneva, which provided the organisational framework for the World Climate Programme set up in 1979, as well as the UNEP's non-political international forum held in 1982 to discuss the global framework toward a convention on ozone layer protection.

The Vienna Convention for the Protection of the Ozone Layer took place in 1985, during which a total of 28 countries ratified the convention, only to enter into force in each of these countries in 1988. This was followed by the resulting Protocol that entered into force a year later in 1989, referred to as the Montreal Protocol on Substances that Deplete the Ozone Layer signed in 1987. Significantly, both climate treaties stand as the first UN accords to be universally ratified by *all* 198 member states in the 21st century. Moreover, the Vienna Convention (1985) represented the first global collaborative response to the hypothesis in Rowland and Molina's (1974) paper as it worked to phase out CFCs and other human emitted chemical compounds that depleted the ozone layer (Paterson, 1996:27-29; Soroos, 2005:42-44; Williams, 2005:407; Winchester, 2009).

In addition, in 1988 another significant institution was established: The Intergovernmental Panel on Climate Change (IPCC) by the UNEP and the World Meteorological Organisation (WMO) – the WMO is the first specialised body of the UN dealing with weather and climate and began its operations as early as 1950. The IPCC was set up as an international science advisory body on climate change in the light of scientific discoveries (Haas, 2005), and is considered to represent "the most authoritative and widely accepted general viewpoint on global warming" (Paterson, 1996:9). It did well to push a global consensus on the existence of climate change that built a more focused path for GEG leaders, namely setting the stage for the Second World Climate Conference hosted in Geneva towards the end of 1990 (Paterson, 1996). The IPCC has further pushed to develop understandings in its Global Assessment Reports on how climate change is associated with human health, discussed below.

Following these abovementioned international climate engagements, and the emergence of the framework convention, the UNFCCC, another kind of governance emerged under GEG. This type of governance is referred to by numerous scholars as Global Climate Governance (GCG) (Biermann, Pattberg & Zelli, 2010; Stevenson & Dryzek, 2012; Gupta, 2014; Stevenson &

Dryzek, 2014). According to Stevenson and Dryzek (2012:189), GCG tends to represent "one of the more profound and, to date, interactable set of problems confronting humanity," which echoes Winchester's (2009) point that climate change is the most urgent environmental issue.

Depledge (2005) outlines five key periods that best describe the emergence and transformation of the "climate regime" from the late 20th to early 21st century: (1) foundational years of the climate regime (1990-1992); (2) regime development and review (1992-1995); (3) Kyoto Protocol Negotiations (1995-1997); (4) post-Kyoto negotiations (1998-2001); and (5) post-Marrakesh negotiations (2002-2005). These periods, emphasised through her account, including the addition of (6) post-Marrakesh and beyond (2005+) outlined in a recent publication (Savaşan, 2019), are presented in a table below summarising key developments of each period. Interestingly, the basic institutional structure of the UNFCCC did well to guide developments of procedural rules and practices of the climate regime, made up mainly of a supreme decision-making body referred to as the Conference of the Parties (COP) on climate change; COP's two subsidiary bodies dealing with scientific and technological advice and implementation; and a secretariat (Depledge, 2005:21-22). Parties, in the case of the UNFCCC, are those states that have agreed to the specific convention.

Table 3.3

The Emergence and Diffusion of the Climate Regime from 1990-2015

Period	Key developments
1990-1992: Foundational years of the climate regime	UNGA launched a series of negotiations "to provide a foundation for a global climate regime" The UNFCCC was established in 1992 with the aim of stabilising greenhouse gas emissions by setting emission targets for countries
1992-1995: Regime development and review	The UNFCCC officially entered into force in 1994 Discussions toward setting up COP1 had begun negotiating: (1) Rules of procedure and arrangements for cooperation; (2) Reviewing commitments of Parties
1995-1997: Kyoto Protocol negotiations	COP1 (1995) agreed to the Berlin Mandate (BM) that emphasised setting emission targets for Parties COP3 (1997) adopted the Kyoto Protocol outlining decisions made from the BM:

	(1) Setting *"quantitative emission targets"* for industrialised countries; (2) Implementing *flexible mechanisms* to help countries; (3) Allowing *"emission trading"* among countries
1998-2001: **Post-Kyoto negotiations**	COP4 (1998) adopted the Buenos Aires Plan of Action (BAPA) to enforce the Kyoto Protocol COP6(II) (2001) adopted the Bonn Agreements in place of the failure of COP6(I) (2000) COP7 (2001) adopted the Marrakesh Accords that: (1) Supplemented the Bonn Agreements; (2) Detailed the rules and guidelines of BAPA in a 200+ page document US began repudiating the Kyoto Protocol
2002-2005: **Post-Marrakesh negotiations**	Marrakesh Accords put into practice Kyoto Protocol finally entered into force in February 2005 Entering a period of "relative stagnation" due to the inability of Parties to launch new negotiation round
2005+: **Post-Marrakesh and beyond**	COP13 (2007) adopted the Bali Road Map for long-term cooperation on the Protocol COP15 (2009) set a goal to limit global temperature increase COP16 (2010) adopted the Cancun Agreement that set guidelines for developing countries to reduce emissions COP17 (2011) adopted the Durban Declaration on reaching a decision that a universal agreement on climate change would be adopted no later than 2015 COP18 (2012) adopted the Doha Amendment that: (1) established a second commitment period of the Kyoto Protocol; and (2) made changes to the Kyoto Protocol COP20 (2014) adopted the Lima Call for Climate Action that addressed key issues ahead of the set 2015 climate agreement COP21 (2015) adopted the Paris Climate Agreement that set global average temperature levels

Table 3.3: The Emergence and Diffusion of the Climate Regime from 1990-2015 (Adapted from: Depledge, 2005; Savaşan, 2019:213-214).

The eventual adoption of the 25-page Paris Climate Agreement by 195 countries on 11 December 2015 stands as a crucial development for GEG towards strengthening global responses to climate change. Whereby, it set up numerous and provisional arrangements on issues pertaining to mainly global average temperature levels and rate of funding (UN, 2015). Article 2.1, for example, outlines the Paris Climate Agreement's aims and breaks new ground in that it marks the first time the UNFCCC has set a collective goal demanding worldwide efforts to both address and finance successfully initiatives towards combatting climate change:

> This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:
>
> (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change;
> (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
> (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (UN, 2015:3)

Unlike the Kyoto Protocol, the Paris Climate Agreement is not treated as legally binding and rather provides "positive obligations" that work to guide Parties towards climate action (Savaşan, 2019:219). It should be noted, however, that international negotiations linked to the Kyoto Protocol are still underway as the Doha Amendment to the Protocol, introduced in the above table, has yet to enter into force. The USA, in particular, has shown a noticeable lack of commitment to agreements on climate action. For example, in 2017 President Donald Trump remarked intention to exit the USA from the Paris Climate Agreement. This only emphasises what Depledge (2005) had argued on climate negotiations entering a period of relative stagnation beyond 2005. However, this should not overshadow the need to respond to climate change, reflected more recently by scientists who have emphasised the relationship between human-produced greenhouse gases, for example carbon dioxide and methane, and the natural world leading to unprecedented rising temperatures in areas such as the Arctic.

Other measures such as introducing a carbon tax which is levied in relation to the carbon content of fuel emissions in a country are currently in place in over 20 countries worldwide. Similar to the Paris Climate Agreement, the purpose of this national agreement is to lower the rate at which carbon emissions are being released into the atmosphere in order to reduce the scale of the threats posed by climate change, South Africa being the most recent third world country to implement the tax law.

Again, to account for all events, institutions and negotiations would lead to a tedious and aimless discussion, but Box 3.1 presents key examples of leading global initiatives and partnerships on climate change set out by the UNEP. This is not to discount other initiatives set out by organisations outside of the UN.

UNEP's Climate Change Initiatives and Partnerships

1. Absorb, Anticipate, Reshape (A2R)
2. Africa Renewable Energy Initiative
3. Climate and Clean Air Coalition
4. Climate Initiatives Platform
5. Climate Technology Centre and Network
6. Global Centre of Excellence on Climate Adaptation
7. Global Environment Facility
8. Green Climate Fund
9. GRID-Arendal
10. International Environmental Technology Centre
11. Partnership with the Technical University of Denmark (DTU)
12. Portfolio Decarbonization Coalition
13. Programme for Action on the Green Economy
14. The Adaptation Fund
15. UN Framework Convention on Climate Change
16. UN Environment Finance Initiative
17. UN Environment International Ecosystem Management Partnership
18. World Conservation Monitoring Centre

Box 3.1: UNEP's Climate Change Initiatives and Partnerships (Source: UNEP, n.d.).

The environment and IR

It has become clear that the environment began to emerge within IR as a field of study as there was an ever-growing consensus on issues that pertain to the environment and which undeniably threaten the sustainability and sustainable development of countries – namely on recognising and adapting to global environmental change. Clapp and Dauvergne (2005:46) had asserted

that it was not until "the dawn of Industrial Revolution that human activities began to accelerate toward a scale able to alter the global environment", which meant in turn that IR began to include environmental concerns. Paterson too, a contributor to Dauvergne's *Handbook of Global Environmental Politics* (2005), states that when (Western) academics think about environmental politics:

> …they tend to start with environmental issues through which we come to understand the physical world around us as in some sense or other 'endangered' and thus 'the environment' becomes something of political interest (Paterson, 2005:270).

It would be interesting, therefore, to account for key scholarly contributions that have attempted to understand place of environmental concerns in IR, many of which emphasise the acceleration of climate change in an industrialising and globalised world.

Clapp and Dauvergne's (2005) analysis is highlighted first as presenting four dominant worldviews on global environmental change and its relationship to the global political economy (GPE): market liberals, intuitionalists, bioenvironmentalists and social greens. They outline the main assumptions and arguments of each view and stress that no single view should be treated as correct, but rather that these are "ideal" categories to help explain these competing and somewhat interlinked interpretations of the global environment on the global political agenda. These worldviews further align with other scholars' interpretations of the environment in IR, discussed further below. Table 3.4 presents an overview and basic summary of these interpretations.

Table 3.4

Dominant Worldviews on Global Environmental Change

	Market liberals	Institutionalists	Bioenvironmentalists	Social greens
Referent	*Economies*	*Institutions*	*Ecosystems*	*Justice*
Ethos	Poverty and weak economic growth; Market failures and poor government policies	Weak institutions and inadequate global cooperation; Underdevelopment and perverse effects of state sovereignty	Human instinct to overfill ecological space (i.e., overpopulation, excessive economic growth, overconsumption)	Large-scale industrial life (market capitalism) as feeding exploitation (of women, labour, the poor, and the environment); Grossly unequal patterns of consumption

Response	Harness globalisation to promote growth, alleviate poverty, and enhance efficiency; Correct policy failures and promote market-based incentives to encourage clean tech and voluntary cooperation	Harness globalisation and promote strong global institutions, norms and regimes to mange the environment; Distribute tech and funds more effectively to developing countries; Build state capacity	Create new global economy that limits growth; Limit population size and reduce consumption; Internalise the value of nonhuman life into institutions and policies; Agree to collective coercion	Reject industrialism (and capitalism) to reverse economic globalisation; Restore local community autonomy and empower marginalised voices; Promote ecological justice

Table 3.4: Dominant Worldviews on Global Environmental Change (Source: Clapp & Dauvergne, 2005:14-15).

The first two strands mentioned both seek to harness globalisation in order to, on the one hand, better manage failures of policies and struggling economies (market liberals), and on the other, to promote key institutions to enhance greater global cooperation towards environmental issues (institutionalists). While market liberals and institutionalists share many of the same broad assumptions (particularly the belief in the value of globalisation, technology and economic growth), they focus on differing features of the global order. Market liberals, for example, stress the importance of a free market and advancing technology for more dynamic solutions that work to enhance the environment, whereas institutionalists stress the need for stronger institutions and global norms that will enable constraints on the GPE (Clapp & Dauvergne, 2005:4-9).

Paterson (1992) speaks to neoliberal institutionalism that draws on the work of Robert Keohane, who defines an institution as a "persistent set of rules (formal and informal) that prescribe behavioural roles, constrain activity, and shape expectations" (Keohane, 1989). Institutionalists, who accept the realist assumption on the condition of anarchy, argue that world politics is fundamentally institutionalised insofar that state actions depend, to a considerable degree, on the arrangements of institutions. It is the very role that these institutions – Paterson (1992) rather refers to "international organisations" – have played in generating outcomes in relation to the environment (Keohane, 1989; Paterson, 1992). As a matter of interest, the theoretical foundation of this thesis would stem out of the institutionalists approach as its analysis focuses on intergovernmental organisations within the field of global health and climate change, and the international agreements and norms behind GHG, specifically the IHRs presented in Chapter 2 that *potentially* speak to climate change.

Unlike market liberals and institutionalists, the other two theories in Clapp and Dauvergne's (2005) analysis, the bioenvironmentalists and social greens, reject the extent to which 'excessive' globalisation has negatively affected the environment and therefore advocate the need to curtail economic globalisation. Another interpretation of this view is in Paterson's (2005) analysis that attempting to provide a set of interpretations of global climate politics within various strands of IR theory introduces elements of *historical materialism*. In this viewpoint, similar to orthodox Marxism, theorists share the core normative concern for social justice and an explanation for the exacerbation of social injustices under a capitalist regime (Eckersley, 1992; Paterson, 2005). As such, these theorists are against the human created ideology of capitalism that is understood as further intensifying damage to the natural environment. Similarly, Eckersley (1992) describes the approach of ecocentric theorists who are against the ideology of human chauvinism.

Like ecocentrism, bioenvironmentalism stresses the biological limits of the earth. The argument presented by critical theory (developed by members of the Frankfurt School) would then provide useful theoretical starting points for these theories, particularly in its critique of human domination and control of nature (Eckersley, 1992). Bioenvironmentalists emphasise problems from a growing population that bears witness to large-scale human consumption at a rate which leaves the planet unsustainable. It would therefore be the argument of a bioenviornmentalist that economic growth and population size need to be curbed. Few social greens, or green activists, on the other hand, accept the argument that population size is associated with environmental degradation, rather arguing that such population control policies threaten marginalised groups (like women and the poor). Nevertheless, their view aligns with those of bioenvironmentalists who stress the effects of large-scale activity as environmentally harmful production processes in the West. More like social greens, ecocentrism is too a social theory that sees each human individual and culture as entitled like any other species, thus giving a voice to and empowering marginalised groups (Eckersley, 1992; Clapp & Dauvergne, 2005:9-13).

This interpretation goes back to Paterson's (1992) account of *historical materialism*, which argues that this theory "enables us to explain the depth of the North-South rift over global warming." In his analysis he claims that historical materialism helps explain the role of the state in promoting capital accumulation and the ways in which this has provided context for the development of destructive climate policies in industrialised economies (Paterson, 1992). Dauvergne (2008:6) also refers to the North-South rift by arguing that globalisation "is accelerating many of the processes casting ecological shadows", as it integrates and restructures economies, institutions and societies. Aligning with a constuctivist pursuit in IR,

in *The Shadows of Consumption: Consequences for the Global Environment* (2008) he refers to the underlying values, norms and assumptions about how the world should be organised (in the interests of the GPE) according to the so-called shadows that have spread damaging environmental behaviour across borders (through, for example, colonialism) (Dauvergne, 2008). Like Clapp and Dauvergne's analysis of the social greens, he argues here that globalisation represents a continuation of earlier waves of domination and control (Clapp & Dauvergne, 2005:13; Dauvergne, 2008).

In a separate account in Dauvergne's (2005) compilation, Matthew (2005) brings the notion of *environmental security* to an understanding of the environment in IR, where scholars have advocated the need to 'bring nature back' into the post-Cold War security discourse as an attempt to draw attention to the historical patterns behind conflict and insecurity (primarily linked to processes of colonialism, environmentally unfriendly development and ideological rivalry) that have environmental underpinnings. He states that the environmental security discourse has contributed to three lines of research which contain many of the broad assumptions in Clapp and Dauvergne's (2005) analysis presented in the above table: human security, globalisation and transnational security (Matthew, 2005).

Firstly, like health and security, human security has environmental underpinnings as it encompasses a far broader basis for analysis that appeals to security environmentalists, as it relates to (1) protection from chronic threats (e.g., hunger or disease), and (2) protection from harmful disruptions to daily life (e.g., natural disasters). Secondly, research on globalisation by environmental security scholars tends to focus on the positive as well as the negative effects of globalisation on fundamental human issues such as the quality of the natural environment. The third and final line of research (transnational security) stresses the challenges of "unconventional, non-military threats to national and human security," for example climate change, that have been amplified by human activity which crosses state borders (Paris, 2001; King & Murray, 2001-2002; Matthew, 2005)

The research is at the crossroads between intentional (extended environmental destruction as an attack against neighbouring states) and unintentional threats (natural disasters) (Matthew, 2005:131-133). Those that are intentional, for example, have been reported in environmental law as seen in the Stockholm Declarations Principle 22 above and subsequent environmental policies. Table 3.5 on the following page summarises these environmental security contributions in IR, namely on human security, globalisation, and transnational security. It seems most points raised above ultimately refer to the historical degradation of the natural environment on a mass global-political scale that demands immediate attention – whereby the passive acceptance of this normality needs to change.

Table 3.5

Environmental Security Contributions to IR Research

	Human security	Globalisation	Transnational security
Referent	*The individual*	*The natural world*	*The individual and the state*
Security from:	Chronic threats and disruptions to daily life	An overconsumed, unsustainable natural environment	Intentional and unintentional (unconventional) threats

Table 3.5: Environmental Security Contributions to IR Research (Matthew, 2005:131-133).

Emergence and evolution of the climate-health nexus in global political narrative

In 2009 the Lancet Commission on managing the Health Effects of Climate Change had called climate change "the biggest global health threat of the 21st century." Various environmental instances, such as the flooding in Mozambique in 2019, or the burning of the Amazon rainforest, have been connected to the dilemma of the climate-health nexus. For example, the mass flooding in Mozambique led to the re-emergence of the threat of the spread of cholera. In line with the research problem and questions that inquire into the materialisation and diffusion of climate change in GHG, it is therefore first important to recognise where in global political agendas climate change has been endorsed as a determinant of health. As the emergence and evolution of GHG (Chapter 2) and GEG (Chapter 3) has been discussed above, with a particular focus on the threat posed by climate change, it would appear that both fields have indeed intersected as they have evolved to include unprecedented challenges and determinants. This section ultimately sets a precedent for the emergence and diffusion of climate change in GHG and the IHRs to be discussed in Chapters 5, 6 and 7.

Dating back to the first international convention signed to protect the ozone layer, in the Vienna Convention (1985) presented above human health was directly referred to in Article 1 of the Convention: "'Adverse effects' means changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind." Moreover, around 8 pages of the Convention included information regarding the member states' obligatory commitments to various protocols for dealing with the climate-health nexus, namely around acknowledging, researching and taking action to protect human health and the environment from ozone layer depletion from, among other things, the adverse effects of climate change (UNEP, 2001). The succeeding Montreal Protocol (1987)

and its amended versions followed with similar conventions around the protection of human health and the environment. As such, similar to the emergence of PH introduced in Chapter 2 on GHG, endeavours behind GCG bore witness the relationship between climate change and human health.

In addition, the first major assessment reports by the IPCC in 1990 and 1992 presented climate change within the context of global governance as posing serious threats to human health, although this topic was not fully expanded on. Both assessments were subsequently merged into a 168-page report in 1992: *Climate Change: The 1990 and 1992 IPCC Assessments.* This publication states that:

> Knowledge of climate change on human health has extended and confirmed the previously reported results with greater understanding of potential shifts in disease vector habitats with global warming… Diseases such as malaria… could increase or be reintroduced in many countries as a consequence of global warming (IPCC, 1992:25).

The document goes on to acknowledge that global warming which can result in even a modest rise in global sea levels:

> …can be expected to prove disruptive to human settlement in many vulnerable coastal areas of some island nations and communities where drought, floods and changed agricultural growing conditions have affected water resources, energy, public health and sanitation, and industrial or agricultural production (IPCC, 1992:102).

The resulting effect of displaced populations from climate related natural disasters or environmental change becomes yet another cause for concern within the global community.

The global community under various global governance spheres (namely GHG and GEG for the purposes of this thesis) increasingly recognised that greater collaboration and coordination of efforts were needed. The first agreement upon the UNFCCC's ratification in 1992, for example, included commitments of 154 Parties to the Convention, one commitment in which endorsed "minimizing adverse effects" of climate change on "public health and quality of the environment" (UNFCCC, 1992:6). Significantly, subsequent global reports included various authors that were leading discussions on the climate-health nexus, such as Anthony J. McMichael who played an integral role framing climate change in relation to global health. His seminal contribution published in 1993, *Planetary Overload: Global Environmental Change and the Health of the Human Species*, sparked a wave of interest within the global community, in that he co-authored numerous global reports and assessments of international organisations on how ecological disruptions have potentially disastrous results for human health. For example, he appeared as a co-author in the Health Risk section of the IPCC's

Second Assessment Report in 1996, and the WHO's seminal publication of 2003, *Climate change and human health: Risks and responses*.

Further IPCC reports pushed this nexus; for example, the IPCC's Third (2001) and Fourth Assessment Report's (2007) dedicated larger sections on human health, the latter assessment in which provided an entire chapter on *Human Health* (392-421). As such, amid growing international consensus in the international community that continued well into the 21st century, the Secretary General of the UN, Ban Ki-Moon, in 2007 called climate change a top priority in his promotion of global health (Wiley, 2010:629). This call by the UN Secretary General at the time demonstrates another key development in particular that accelerated the need to respond to the climate-health nexus for both GHG and GEG. Responding to the nexus, Working Group II to the IPCC's Fifth Assessment Report published another, more concise, chapter on health: *Human Health: Impacts, Adaption, and Co-Benefits* (709-754).

In a series of commission reports, the Lancet Commission stated in 2009 that: "effects of climate change on health will affect most populations in the next decades and put the lives and wellbeing of billions of people at increased risk" (Costello et al., 2009:1693). The same article goes on to outline the effects of global average temperature change (both directly and indirectly) on various aspects of health, namely on water, ecosystems, food, coasts, and health itself, which raises many challenges and urgent questions for the global community. They therefore called for a public health movement which frames the issue of climate change as a health issue for humankind (Costello et al., 2009).

Depledge (2005) and Wiley (2010:629) frame the UNFCCC's period of relative stagnation, stating that the health sector had "virtually no representation" in the climate change agenda in its ongoing negotiations from 2005 – a crucial point to be addressed later on in the study. Attempting to reaffirm the urgent need to respond to climate change, various NGOs such as the UK's Climate and Health Council organised the First Climate and Health Summit in parallel to COP17 in 2011 in Durban. Summit attendees (over 30 state representatives) called upon UNFCCC negotiators to not only reach a global agreement for climate mitigation, but to also recognise both the burden of disease and rising healthcare costs for developing countries (Savaşan, 2019). More recently, in 2017 the UNFCCC released a report recognising the risks that climate change presents to human health: *Human health and adaptation: understanding climate impacts on health and opportunities for action.* In this report the UNFCCC provides a synthesis of information on climate change and human health, as well as indicating the emerging challenges and opportunities for collaborative climate action. Key findings from the report are five-fold and provide a basic framework for and insight into understandings around the association between climate change and health:

(1) That certain population groups are more susceptible to climate-sensitive health impacts, exemplified by children or elderly groups, pregnant women, socially marginalised groups that are associated in some areas with poverty, and underlying human health conditions such as HIV;
(2) That some infectious diseases, particularly water-borne, are highly sensitive to climate conditions, illustrated through a correlation between temperature and diarrhoea;
(3) That climate change not only lengthens the transmission period, but also expands the geographical range of the distribution of many diseases such as malaria or dengue;
(4) That climate change results in extreme weather patterns and events, such as heatwaves, which cause an increase to the risk of various health problems like cardiovascular disease; and
(5) That climate change negatively impacts food security for developing countries, particularly due to extreme weather events which destroy crops and food production mechanisms (UNFCCC, 2017).

These insights, especially the latter point (5) on climate change and its association with malnutrition and undernutrition, have appeared in many other global agendas, such as in the SDGs discussed below.

The Brundtland Report (1987) presented in the previous chapter which recommended the convening of a conference on the environment and development, resulted in the UNDP's first *Human Development Report* in 1990 that brought many development areas forward, underpinning the emergence of the MDGs. However, as the MDGs were heavily critiqued for their failure to fully take into account the interactions between its development goals (Waage et al., 2010), the subsequent SDGs (see Chapter 2's Box 2.2) attempted to address this failure by including a far wider array of goals that required greater, cross-sectorial collaboration:

> In addition to reinforcing the commitment to the unfinished MDGs, the SDGs break new ground with goals on inequalities, economic growth, decent jobs, cities and human settlements, industrialisation, energy, *climate change*, sustainable consumption and production, peace, justice and institutions (UNGA, 2014a).

Agreed to in the same year as the UNFCCC's Paris Climate Agreement, the SDGs provided another global, ideational and normative framework for sustainable development that treated environmental sustainability as a core pillar, while formally integrating climate change into its agenda:

> Efforts to ensure global environmental sustainability have shown mixed results throughout the last 15 years. Much work remains for the post-2015 period, particularly given the acute environmental challenges the world is facing, such as climate change, food and water insecurity, and natural disasters. One theme emerging from the debate on the successor agenda to the MDGs is the importance of true integration of environment into development ambitions. Environmental sustainability is a core pillar of the post-2015 agenda and a prerequisite for lasting socioeconomic development and poverty eradication. Healthy, well-managed and diverse ecosystems and resources can play a strong role in mitigating future environmental challenges and improving livelihoods everywhere. Therefore, it is crucial to ensure that the development agenda for the future reflects the links between socioeconomic and environmental sustainability and protects and reinforces the environmental pillar (UN, 2015:61).

Gone was the narrow approach of the MDGs, to be replaced by a new framework that treated climate change as a holistic concept affecting many other variables in its global agenda.

Not treated as a mutually exclusive example, *SDG 13: Take urgent action to combat climate change and its impacts* focuses on broadening the capacity of countries and strengthening their resilience, particularly in the developing world, in managing the threat of climate change. It includes five targets along with eight measurable indicators that are strongly associated with climate change and human health (see Table 3.6). Significantly, the second target for climate change (SDG13.2) works to integrate climate action within countries' strategic policies or action plans, wherein implemented policies, strategies, and/or agendas should be designed "in a manner that does not threaten food production" (SDG13.2.1). This association has been described by scholars (e.g., Monkelbaan, 2019) and set out in both old and recent reports by the IPCC, as well as new reports by the UNFCCC, as being strongly driven by the so-called water-energy-food (WEF) nexus, with climate change being presented as placing additional pressure on both water and energy used for the production of food.

Table 3.6

Defined Targets and Indicators under SDG13

Target		Indicators	
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	13.1.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people
		13.1.2	Number of countries with national and local disaster risk-reduction strategies

		13.1.3	Proportion of local governments that adopt and implement local disaster risk-reduction strategies in line with national disaster risk reduction strategies
13.2	Integrate climate change measures into national policies, strategies and planning.	13.2.1	Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
13.3	Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	13.3.1	Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula
		13.3.2	Number of countries that have communicated the strengthening of institutional, systemic and individual capacity building to implement adaptation, mitigation and technology transfer, and development actions
13.a	Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.	13.a.1	Mobilized amount of US dollars per year starting in 2020 accountable towards the $100 billion commitment

13.b	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focusing on women, youth and local and marginalized communities.	13.b.1	Number of least developed countries and small island developing states that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities

Table 3.6: Defined Targets and Indicators under SDG13 (Source: UN, 2016).

SDG13 indeed acknowledges the intersection between GHG and GEG on climate change and its association with health. However, Shea, Knowlton and Shaman (2018:200), among others, rightfully assert that "an increased and full integration of climate and health issues into governance and policy decision-making is crucial for a more secure, healthy future" and they accordingly call for a more informed *climate-health governance*, as well as collaboration and coordination among various state actors.

Table 3.7 converges information from Chapter 2 and 3 into a timeline of key events, mainstream literature, and global narrative and agendas within these interrelating spheres of GHG and GEG that have acknowledged and pushed to develop the climate-health nexus discussion. Note that this figure (and the section) does not represent an all-inclusive account of the climate-health nexus, but rather an illustration of some of the key areas that have incorporated this nexus.

Table 3.7

Key Events, Mainstream Literature, and Global Narrative and Agendas Behind the Climate-Health Nexus

Date:	Event:
1962	Carson's seminal publication, *Silent Spring,* linking a damaged environment with human health
1968	Hardin's seminal publication, *The Tragedy of the Commons,* on humanity's proclivity to overconsume the Earth's resources of which human health depends
1972	Adoption of the Stockholm Declaration which refers to hazardous environmental events as a public health threat, acknowledged by 113 ratifying countries
1974	Rowland and Molina's seminal scientific report on various gasses that deplete the ozone layer (CFCs) and which contribute to human health conditions/illnesses
1985	Adoption of the Vienna Convention to phase out substances that deplete the ozone layer
1987	Adoption of the Montreal Protocol to the Vienna Convention
1990	• The WHO publishes a report on the links between climate change and human health

	• The UNDP publishes its first Human Development Report linking the environment and health to development
1990–1996	The First and Second IPCC Global Assessment Reports which include human health discussions
1992	• The Rio Earth Summit presenting the concept of sustainable development to promote healthy humans and a healthy environment • UNFCCC's ratification and commitment to prevent the adverse effects of climate change on public health and the quality of the environment
1993	McMichael's seminal publication, *Planetary Overload*, that framed ecological disruptions and climate change as a human health concern
2000	Adoption of the MDGs including a broad framework for the protection of health and the environment
2003	The WHO's seminal report, *Climate change and human health*, on the risks and potential responses to threats posed by climate change to human health
2005	Broader framework adopted behind the IHR which include any event/disease regardless or origin/source that result in a PHEIC
2007	• UN Secretary General made climate change a top priority in his health agenda • IPCC Fifth Assessment Report includes a chapter on climate change and human health
2009	The WHO positions health at the heart of climate change discussions
2011	First Climate and Health Summit in Durban and adoption of the Durban Declaration on Health and Climate
2015	• Adoption of the SDG's in which SDG13 links climate action to health benefits • Adoption of the UNFCCC's Paris Climate Agreement on reducing greenhouse gas emissions worldwide
2017	The UNFCCC publishes a report, *Human Health and Adaption*, on understanding the impacts of climate change to human health and identifying opportunities for action
2018	The WHO establishes a global strategy on health, environment, and climate change

Table 3.7: Key Events, Mainstream Literature, and Global Narrative and Agendas Behind the Climate-Health Nexus (Source: Author).

Conclusion

This chapter contextualised and discussed the emergence and evolution of GEG. Like Chapter 2, it first addressed key terminology (GEG and political ecology) by discussing the definitions provided by leading scholars in the field, such as Paterson, Dauvergne, Robbins and Scott and Sullivan. The chapter then outlined an historical account of key events, mainstream literature, and global negotiations that have resulted in the emergence and evolution of GEG. GEG came

over a century after GHG in the 1970s out of the need to understand and respond to emergent threats of the Anthropocene. The 1972 Stockholm Conference was highlighted in accordance with the scholarly literature as the main contributing factor to the emergence of GEG with the first environmental Declaration adopted. The Earth Summit in 1992 was presented as realising further the global environmental regime. The emergence and development of climate change in the global environmental regime was further presented and discussed in its own right and situated as a leading subject under GEG, particularly finding international consensus through the Vienna Convention (1985).

This chapter also positioned the environment as an aspect of IR by presenting ways in which prominent scholars have attempted to understand the threat of environmental change to the sustainability (and essentially sovereignty) of a country and criticised various industrial and capitalist activity of first world economies. The final section provided a context within which climate change has been associated with human health in the transnational network of organisations, the association to which is referred to as the *climate-health nexus*. Insofar as the global community has been able to make sense of this nexus, various international organisations have responded with strategies, from the Stockholm Declaration in 1972, to the WHO's global strategy on health, environment and climate change in 2018. Most significantly, a timeline of key events, mainstream literature, and global reports and agendas summarised the final section of this chapter that illustrated points of intersection between GHG (Chapter 2) and GEG (Chapter 3) (see Table 3.7 above). In order to examine this phenomenon more closely, instead placing particular emphasis on GHG, in line with the research problem and questions, this study draws on a constructivist perspective in IR. The international norm dynamics regarding ideas, values and ideational norms that influence realities are discussed in the next chapter.

Chapter 4
Theoretical framework: constructivist perspectives in IR, norms, and the norm life cycle

Introduction

Theory is clearly an important component of qualitative research. Near the end of the 20th century IR scholars became increasingly interested in the study of norms and normative behaviour in order to make sense of their political reality. The primary research question of this study is: *How are the norms developed to combat climate change discernible and manifesting in GHG, and specifically in the IHRs?* As the thesis has so far given an historical account and review of the literature underpinning the context within which the climate-health nexus has been identified (in Chapter 2: GHG; and in Chapter 3: GEG), it now attempts to address the primary research question, its sub-questions, and the research problem identified in Chapter 1 by applying a constructivist perspective in IR theory. The purpose of this chapter is therefore to explore the utility of constructivism and to ascertain which perspective (if any) is most useful in describing and explaining the emergence of norms developed to combat climate change in GHG, how these norms cascaded within GHG and the IHRs, and how they then became internalised (if at all) in the political reality of GHG. The discussion is divided into three parts.

This chapter firstly presents a brief, historical overview of the primary perspectives in IR theory by discussing the theories of realism and liberalism, before introducing constructivism and its unique utility in IR. The second section takes a closer look at the emergence and makeup of constructivism by addressing its key conceptual underpinnings and its normative direction on the basis of the work of influential constructivists and key academic scholars. The final section focuses on Finnemore and Sikkink's (1998) contribution, particularly on their norm life cycle model that gives this thesis with its theoretical and methodological clarity. As their model consists of three stages, this section introduces the implementation of each stage; the theoretical framework is then applied in Chapter 5 (on norm emergence), Chapter 6 (on norm cascading) and Chapter 7 (on norm internalisation).

Primary perspectives in IR

The politics of IR covers a huge field. While lacking a precise definition, 'international relations' has been defined in general as "an ensemble of activities that are recognizably political" and that extend beyond national borders (Onuf, 1989:2). IR theory came to the fore as a useful way in which to explain various activities of global political phenomenon and the many complexities of the world to which it refers (Weber, 2005). While describing reality, an

IR theory attempts to ascribe some sort of meaning to it as it asks normative questions about what the world *should* or *ought* to look like. In this way, it provides various conceptual or theoretical frameworks upon which complex, global political phenomena can be analysed. The history of IR has been told predominantly through the lenses of realist and liberal pursuits. Dominating the discipline of IR for decades, realism, in particular, is still regarded as *the* predominant theory of IR (Smith, 2000:39).

Despite the longstanding appearance of both theories, however, the end of the Cold War prompted a great deal of soul-searching in IR to the extent that a major debate involved critiques of realists and liberal disciplines (Sørensen, 1998:83-84). As mentioned in Chapter 1, both realist and liberal schools of thought tend to be confined to and within a particular global perspective, whereas constructivism offers a more interpretative lens. The purpose of this section is to present briefly the theories of realism and liberalism before presenting the theory of constructivism as it operates in the academic discipline of IR. Keep in mind that these IR theories are by no means exclusive, but rather help contextualise IR perspectives and illustrate the unique utility of constructivism for addressing the research problem and questions.

Realism versus Liberalism

The claim that international politics is anarchical, made up of multiple nation-states with an absence of a world governing body, is almost universally accepted by most IR theorists and practitioners. However, the way in which this 'myth' is perceived differs across the many traditions. The theories of both realism and liberalism provide longstanding perspectives on the academic discipline of IR and are almost always positioned against each other.

Viotti and Kauppi differentiate between the two theories in a way that is worth noting here:

> For many realists, particularly structural realists, the international system is the starting point for analysis and factors at the unit or state-societal level of analysis are of secondary importance. For many theorists in the liberal tradition, however, the opposite is the case, with such "second" and "first-image" factors being critical to explaining international outcomes (Viotti & Kauppi, 2012:129).

The assumed myth on the inevitability of anarchy is truest for realists, who argue that anarchy is a motivation for conflict and an explanation for war. Realism emerged as one of the earliest IR traditions, mainly in the mid-20th century claiming that states are self-interested actors working to maintain their own survival in the grim face of anarchy (Waltz, 1959; Weber, 2005). Liberals agree with the assumption of an absence of a world governing body, but they take their perspective from what Viotti and Kauppi (2012:129) refer to as an "all-inclusive tent", in

that the world (anarchical) system is made up of more than just sovereign nation-states acting in their own self-interest.

Liberals are of the assumption that both the state and non-state actors are key units of analysis. As realists rather place the emphasis on the state as the most (indeed only) important actor (Waltz, 1959), Cynthia Weber (2005) in her seminal *International Relations Theory* rightfully asserts that a realist's train of thought then stems from fear of external threats to the state posed by other states potentially maximising power over and above their own. In other words, realists are concerned with the contents (states) of constitutive powers (the military). Realists stress the importance of national and in some cases international security as protection against these threats (usually coming from other states), whereas liberals, whose assumptions are based on earlier traditions of idealism that regard the nature of humanity as essentially good, are driven to discover what conditions, particularly of international collaboration through institutions, might achieve world peace (Keohane, 1989). Liberals then stress the role played by international organisations, for example, the role of the UN in influencing this positive-sum (absolute gains) perspective, rather than the relative gains (zero-sum) perspective that drives interstate competition in a realist's pursuit (Viotti & Kauppi, 2012).

This description does not discount other forms of realism and liberalism, such as the structural/neo-realism noted in Viotti and Kauppi's account above, and the perspectives of neoliberals or other neo- variations, such as Ruggie's (1998) neo-utilitarianism, or Checkel's (1998) materialist pursuit. All of these, nevertheless, assume the inevitability of anarchy and the contents of constitutive powers as the starting point for their arguments. The most significant distinction between realists and neorealists, for example, is their understanding of the root of international war and conflict: whereas more classical realists make the assumption that human nature is almost always imperfect and thus the root cause of war, structural or neorealists assume that it is the very fact of the anarchic international system that causes war scenarios as states fear those who maximise above others. Yet another core assumption behind these theories is aligned particularly with the existence of *institutions*. For (neo)realists, institutions cannot get states to stop behaving as, what Mearsheimer (1995:82) refers to as, "short-term maximizers." The same goes for (neo)liberals who, although they might consider the role that *international norms* play in state behaviour and the world system, instead argue that the individual is an autonomous being and the producer of his/her own reality. This might be true for those who push for the emergence and development of a norm, but both (neo)realists and (neo)liberals in their many variations would argue that institutions play little role (if any at all) in shaping human behaviour (Wendt, 1992; Mearsheimer, 1995; Ruggie, 1998; Viotti & Kauppi, 2012).

Wendt makes a strong remark on this debate on neorealists and neoliberals, who seem to share a common assumption: that institutions are believed to change behaviour, *but not identities and interests* (Wendt, 1992). However, if identities and interests were treated as pre-given, without being shaped by institutions and normative structures, then the address of the primary research question and its sub-questions of this thesis would fail to explain the complexity behind the emergence and diffusion of climate change by global institutions and frameworks. As this section first turned to realism in IR, it found that realists place too much emphasis on the survival of the state and, when turned to liberalism, the study also found that this theory fails to address the complexities around norm behaviour and, more specifically, institutional norm dynamics. Despite these disciplines that build upon longstanding traditions in IR, neither (neo)realism nor (neo)liberalism provides the necessary theoretical framework to address and analyse norms and their (potential) emergence and spread. This study therefore turns to the youngest theory in IR, constructivism, as providing a useful way in which to solve the research problem and answer the research questions.

Constructivism

The debate between competing IR theorists, according to Wendt in his seminal accounts of the theory of constructivism (1992, 1994, 1999), tends to be about which aspects of anarchy they decide to stress. These aspects highlight the extent to which state action is influenced by *structure* versus *interests*. While agreeing with the dominant perspective that countries behave in the international system according to state-centric approaches, Wendt (1992:393) rather argues that "transformations of identity and interest through process are transformations of structure;" meaning that identities and interests of states are constructed according to their interaction with various social structures.

Cultural anthropologist, Clifford Geertz (1973:5), stated memorably that "man is an animal suspended in webs of significance he himself has spun." In other words, 'man' attaches meaning to his reality through "collective understandings" (such as norms), in order to endow material objects with purpose and meaning (structure) that therefore "help constitute reality" (Adler; 1997:324) Friori (2006:60), further situating norm evolution within depictions of constructivism, makes a very important claim: "history matters, and it can probably be of assistance to approaches which seek to explain very complex phenomena." In Viotti and Kauppi's analysis of constructivist theory, they also state quite significantly that:

> By examining in detail, the historical context within which such structures arise, constructivists attempt to explain how and why particular practices become relatively fixed in some cases, but fluid and subject to change and decay in others. Rules and

> meanings of expected behaviour that reflect mutual, intersubjective understandings provide order to international politics, stabilize actors' expectations, and help to manage relations among actors (Viotti & Kauppi, 2012:285).

What is important here is that structure is defined in terms of social relationships and shared meanings which are constructed against the cluster of knowledge, identities and interests (or norms) which have the potential to transform and also to be transformed by structure and behaviour. The overarching goal of a constructivist pursuit is therefore to provide an empirical and theoretical account of social change (norm history and development), whereby actors and social structures (and their mutual effects) are closely examined (Wendt, 1992; Finnemore, 1996; Weber, 2005; Parsons, 2010).

As constructivists emerged in contrast to (neo)realist and (neo)liberal perspectives, which indicate that identities and interests of states are exogenously pre-determined, it is important to note, however, that constructivism is not necessarily anti-realist nor anti-liberal; rather, according to Adler (1997:323), it only challenges the ontological and epistemological grounds of these theories. Constructivism is then instead interested in the social construction of the state itself, and, stemming from (cultural) social sciences, it takes (normative, ideational and material) structures more seriously than the predetermined assumptions of (neo)realist/(neo)liberals' schools of thought. It diverges most significantly through the myth that *anarchy is what the states make of it* (Wendt, 1992) – meaning that human beings and their social practices have constitutive effects on their material reality. In other words, constructivists argue that their reality is in fact made-up of social structures that are the very result of the purposeful interactions between state and non-state actors. As such, for constructivists both state and non-state actors are treated at intrinsically social, whose identities and interests are regarded "the products of inter-subjective social structures" (Reus-Smit, 2005:193).

Parsons, contributing to Marsh and Stoker's *Theory and Methods in Political Science,* makes a further point that "constructivism is a broad family of arguments built on the notion that people only arrive at certain actions due to their adoption of certain 'social constructs' to interpret their world" (2010:97). In the words of Weber (2005), in her influential *International Relations Theory*: "there is something for everyone in constructivism." Although this may seem like a theory that is neither here nor there, constructivism essentially builds a bridge between longstanding IR traditions by basing the character of international anarchy on the states' very decisions and practices themselves. Moreover, the relatively late arrival of constructivism in mainstream IR finds its basic point of view to be similar to political and social science interpretations of institutionalism (to be discussed in the following section). But

the special case that constructivism provides – particularly in analysing norm history, development and norm behaviour – is a unique way in which to address the research problem and questions on the history and development of norms to combat climate change in GHG and the IHRs. Table 4.1 summarises key differences between realist, liberal and constructivist pursuits in IR, while identifying a key theorist under each theory, and further demonstrates the unique utility of constructivism for this study.

Table 4.1

The Unique Utility of Constructivism Compared to Primary Perspectives in IR

	Realism	**Liberalism**	**Constructivism**
Logic of anarchy:	Conflictual	Cooperative	Anarchy is what the state makes of it
Focus:	States	States & non-state actors	Individuals and norm champions
Praxis:	Military and maximising power	Collaboration and institutions	Identities and interests
Key theorist:	Kenneth Waltz	Robert Keohane	Alexander Wendt

Table 4.1: The Unique Utility of Constructivism Compared to Primary Perspectives in IR (Source: Author).

The emergence and evolution of constructivism

The above section briefly looked at the primary IR theories of realism, liberalism and constructivism in terms of key theorists, and situated the latter theory as best placed to address the research problem and questions through its explanation of identities and interests that are shaped by interacting social structures; this section now looks more closely at the theory of constructivism. This section consists of two main parts. The first part briefly discusses the emergence of constructivism in the latter half of the 20th century; the second part looks at the evolution of key conceptualisations by leading perspectives that underpin the theoretical framework to which this thesis adheres. This will be achieved by examining three concepts: norms, institutions, and institutionalisation. The purpose of this conceptual overview is to provide clarity for the subsequent sections and chapters that present and apply a specific constructivist perspective to norm development.

20th century: emergence

By the 1980s IR theory typically evoked two debates. The first was the debate between the neorealists and neoliberals, discussed above, who sought to apply the logic of rationalist economic theory as a means to explain complex world politics. The other debate was between

rationalists and critical theorists, with the latter challenging the epistemological, ontological and normative assumptions of those theories which applied the rationalist logic (Adler, 1997).

As mentioned, constructivism emerged out of more cultural and sociological approaches to IR that emphasised norm history and change (e.g., see Finnemore, 1996; Finnemore & Sikkink, 1998). Despite some scholars (e.g., Parsons, 2010) rightfully acknowledging that constructivist perspectives emerged as early as the 1950s/1960s to explain complex phenomena, such as the effect of political culture on peoples' values and in turn their actions (as in Almond and Verba's *The Civic Culture*, published in 1963), constructivism failed to gain a foothold in the mainstream discipline of IR. Nicolas G. Onuf is usually credited as a key contributor to the makeup of a 'new' constructivism, particularly in his rejection of the notion of objective social truths. In his *World of Our Making,* Onuf (1989:35-36) argues that constructivists instead begin with "deeds" ("deeds done, acts taken, words spoken") in order to not take existing objective social truths (or norms) for granted by questioning and examining their very existence. Constructivism's 're-emergence' can be traced specifically to the cataclysmic changes in the political world order associated in particular with the end of the Cold War in 1989. In this post-Cold War context, an array of complex international norms re-emerged as world politics entered a new phase (Huntington, 1993; Reus-Smit, 2005:188; Parsons, 2010:82), such as the global human rights agenda and emerging environmentalism.

Reus-Smit (2005) who wrote an influential contribution on the theory of constructivism in a compilation with other authors on various IR theories, pinpoints four factors leading to the rise of constructivism in the late 20th century: (1) an attempt to reassert the importance of constructivists conceptions of theory and world politics; (2) the Cold War opened up a space for the inclusion of an alternative explanatory IR perspective, especially considering both neorealists and neoliberals failed to adequately predict or comprehend the reshaping of the global order; (3) the 1990s had produced a new generation of scholars who embraced many of the "critical theorist" propositions and whose interests expanded far beyond old generational (rationalist) theories and included the dynamics of international change (e.g., see Finnemore & Sikkink, 1998); and (4) a general rising enthusiasm among scholars who were frustrated with the analytical findings of these old rational (realist and liberal) theories and were eager to move beyond them towards a more interpretative account of political reality in IR (Reus-Smit, 2005:195-196).

As it is the intent of a constructivist to explore core ontological propositions about social life, namely the extent to which normative, ideational and material structures inform behaviour, the way in which identities (non-material structures) shape interests and in turn actions, as well as how agents and structures are mutually constituted, is addressed mainly through examining

three key conceptualisations discussed below – *norms, institutions* and *institutionalisation*. These conceptualisations better situate the unique perspective adopted on institutional norm dynamics, providing explanations for the research problem and questions.

Norms, institutions and institutionalisation

Norms

As stated in Chapter 1, there is widespread agreement on the definition of norms as *generally accepted values that define standards of appropriate behaviour for actors with a given identity*. As identified in Chapter 2, for example, the WHO is a leading global health (non-state) *actor* with a given mandate (or accepted *identity*) to protect and promote global health. Since the inception of the concept of norms, they have been described as ideational factors in as much as "identities, resources, values, norms and rules guide action" and are "simultaneously shaped by the course of history" (March & Olsen, 1998:945-955). In effect, norms are not rigid nor inflexible – the most influential constructivist studies are particularly interested in inquiring into normative dynamics and change. As norms have a tendency to change over time, some can become quite unfashionable in the contemporary, modern world order, for example, the idea that women are unfit to vote in political elections. Engelkamp and Glaab's (2015:202) more recent *Writing Norms: Constructivist Norm Research and the Politics of Ambiguity* then rightfully asserts in the introduction that constructivists "seek to recover the normative ambiguity inherent in the processes of normative change for a more reflective practice of norm research." Norms are, therefore, understood to emerge, evolve and influence features within political landscapes.

There are many conceptualisations or types of norms. Wendt (1992:413), for example, who analyses the social construction of power politics in his *Anarchy is what States make of it*, introduces the notion of "sovereignty norms" that prevail within states, referring to ongoing day-to-day practices, such as taxing its citizens at a particular percentage of income, that apply only to citizens within state bounds and not those people that reside beyond its borders. Beyond this, norms have been described as being both international or domestic in origin – the latter (domestic) norms are usually deeply entwined with the workings of international/regional norms that set the standards of or legitimise appropriate behaviour among states (Finnemore & Sikkink, 1998:893; Viotti & Kauppi, 2012:286). Finnemore and Sikkink (1998:893) state specifically on the emergence of new norms that "many international norms began as domestic norms and become international through the efforts of entrepreneurs of various kinds", although this does not discount the possibility of a norm originating internationally either (Viotti & Kauppi, 2012). When looking at the emergence of new norms, they go on to insist that "new norms never enter a normative vacuum but emerge in a highly contested normative

space where they must compete with other norms and perceptions of interest" (Finnemore & Sikkink, 1998:897) – as seen when the first scientific discoveries hypothesising the human-induced climate change dilemma were met with utter outrage by manufacturing industries.

Viotti and Kauppi (2012) write a chapter on "Constructivist Understandings" in their *International Relations Theory* in which they describe norms as operating in two scenarios: as *rules* and as *standards.* This analysis of the operation of the concept of norms provides a relatively useful starting point to understanding what constitutes a norm and how they in fact operate within various scenarios – a key contribution that can aid the way in which norms developed to combat climate change are approached in this thesis. In situations where norms operate like rules, they state that norms define the identity of a given actor insofar as the norm has "constitutive effects" which determine what actions (of the respective actor) cause others to recognise a particular identity. This statement coincides with the earlier research of Wendt (1992), Finnemore and Sikkink (1998) and Weber (2005), who convincingly claim that identities have structural effects. An example of norms constituting an actor's identity can again be the global health leader, the WHO, whose identity has resulted in legitimising its stature among states as the central repository of information when in the face of disease outbreak. In the latter situation where norms operate like standards, Viotti and Kauppi (2012) argue that norms have also "regulative effects" that set out or define standards of appropriate behaviour for which the norm specifies the enactment of an already defined identity – such as the IHR (2005) which specify countries' behaviour in the face of a public health emergency. They therefore rightfully assert that norms "either define (constitute) identities or prescribe (regulate) behaviour, or they do both" (Viotti & Kauppi, 2012:286). Table 4.2 provides an illustration and summary of Viotti and Kauppi's (2012) description of the ways in which norms operate, informing the type of norm/or norm product.

Table 4.2

The Operation of Norms

Norm operation:	Norm product:
1. *As rules*	The norm constitutes the identity of a given actor
2. *As standards*	The norm regulates standards of behaviour of a given actor
3. *As rules and standards*	The norm constitutes identity and regulates standards of appropriate behaviour of a given actor

Table 4.2: The Operation of Norms (Source: Viotti & Kauppi, 2012:286).

Regardless of general agreement around the definition of a norm, like most theoretical conceptions, Engelkamp and Glaab assert that "a number of conceptual issues still cause confusion and debate." However, they do note, like others before them (e.g., Finnemore & Sikkink, 1998), that the language of norms is not to be confused with the language of institutions (Engelkamp & Glaab 2015:205). Instead, constructivist scholars in IR urge that an institution is made up of and codified by various norms, and it is the development of these norms, or the "the course of history" as March and Olsen (1998) put it, that interest constructivists in IR. Finnemore and Sikkink's 1998 article on understanding norms and inquiring into how they *change* provides one such perspective for understanding norms – one explored before by many scholars such as Axelrod (1986) and Nadelmann (1990), who were searching for a useful theory to explain norms. Constructivist definitions of institutions and institutionalisation are presented below in relation to the concept of norms.

Institutions

The approach of institutionalists dates back to the 1950s, but only truly highlighted in the later 20th century, particularly when Stanford University students and scholars began to explore the relationship between culture and the structures of organisations, as they were interested in the cross-national analyses of political and economic change (Finnemore, 1996:328). Scholars such as March and Olsen (1998) and Lowndes (2010) refer to the resurrection of a "new institutionalism" that focuses on the organisation of political life – a common endeavour for constructivists in IR because of their emphasis on social constructs.

In the language of norms among political scientists, an institution is generally understood as a significant *consequence* that is structured on the basis of a specific set of norms or values. An institution (also defined similarly as "regimes" by regime theorist Stephen Krasner (1982)) embodies the norms, identities and interests of an actor or actors that shape and in some cases regulate behaviour in political reality. For example, a more conservative and earlier theorist, Friedrich von Hayek, who attempted to counter explanations of the emergence of institutions as a result of the 'spontaneous social order', describes institutions in one of his many publications as shared sets of rules or practices of social conduct that have been thoughtfully established to achieve an end goal (1973:9). An institutionalist such as Keohane (1989) presented an argument for liberal institutionalism as providing an explanation of the social world order, where an institution is described as a set of rules that work to prescribe, constrain and shape behaviour. Wendt's definition brings important concepts to centre stage, stating that an institution refers to:

> … a relatively stable set or structure of identities and interests. Such structures are often codified in formal rules and *norms*… Institutions are fundamentally cognitive entities

> that do not exist apart from actors' ideas about how the world works. This does not mean that institutions are not real or objective… As collective knowledge, they are experienced as having an existence over and above the individuals who happen to embody them at the moment. In this way, institutions come to confront individuals as more or less coercive social facts, but they are still a function of what actors collectively know. Identities and such collective cognitions do not exist apart from each other; they are mutually constitutive (Wendt, 1992:399).

This definition is important as it demonstrates the relationship between rules, norms and institutions, and how they work within the cognitive processes and inform the behaviour of various actors in specific situations (Marsh & Olsen, 1998:948), to which Finnemore and Sikkink respond quite significantly that:

> One difference between "norm" and "institution" (in the sociological sense) is aggregation: the norm definition isolates single standard of behaviour, whereas institutions emphasize the way in which behavioral rules are structured together and interrelate (a "collection of practices and rules"). The danger in using the norm language is that is can obscure distinct and interrelated elements of social institutions if not used carefully. For example, political scientists tend to slip into discussions of "sovereignty" or "slavery" as if they were norms, when in fact they are (or were) collections of norms and the mix of rules and practices that structure these institutions has varied significantly over time (Finnemore & Sikkink, 1998:891)

This particular passage has been repeated in a number of subsequent texts (e.g., Engelkamp & Glaab 2015) as being crucial to understanding the danger behind confusing the concepts of norms and institutions. Finnemore and Sikkink go on to say that:

> Used carefully, however, norm language can help to steer scholars toward looking inside social institutions and considering the components of social institutions as well as the way these elements are renegotiated into new arrangements over time to create new patterns of politics (Finnemore & Sikkink, 1998:891).

This somewhat complex yet integrated process brings the concept of institutionalisation to the forefront of the discussion. Institutionalisation is a leading concept in the work of many constructivists who inquire into how norms are renegotiated over time to influence existing patterns and institutional arrangements and structures of contemporary political world orders.

Institutionalisation

The concept of institutionalisation has been defined as "a process of internalizing new identities and interests" (Wendt, 1992:399), which are understood to find their way into people's

cognitive processes and physical behaviour. Wendt, who emphasises the cognitive processes of the individual or group, argues that "regular practices" tend to produce mutually constituting identities ("agents") and the institutional norms ("structures") that are associated with these identities (Wendt, 1992:413). A similar process, for example, is the process of socialisation, as socialised individuals have internalised the norms, interests and ideologies of a given society, and have ultimately learnt how to behave (appropriately) within (and whose thoughts are structured by) that very society. The same goes for the process of institutionalisation as various existing identities and institutional arrangements prescribe meaning for the individual. For example, Samuel P. Huntington in his influential *The Clash of Civilizations,* explains Western interests and values that are promoted as universal norms, such as the promotion of non-proliferation through various non-proliferation treaties used to assist in the realisation of this norm (1993:46).

Finnemore (1996) describes institutionalisation as aligned with a sociologist's intuitionalism. Institutionalists in sociology did what many political scientists tended to ignore: making internalised norms the foci within their analyses by problematising and inquiring into their taken-for-granted quality. In her description she explains the role of citizens and argues that citizens are *not* treated as "unproblematic, irreducible, autonomous actors who know what they want independent of social or cultural context." A sociologist's institutionalism is then radically different from realism or liberalism in IR as they place emphasis on the individual who, rather than being an autonomous producer, is regarded as a *product* of society and culture (and ultimately of the *institutions* that create meaning) (Finnemore, 1996:333; Finnemore & Sikkink, 1998; Lowndes, 2010:65). This perspective therefore allows scholars to ask questions about complex social and political life that other perspectives might take for granted.

Similarly, Lowndes (2010:65) refers to another strain of this new institutionalism, referred to as normative institutionalism (a key perspective championed by March and Olsen's seminal works in 1984 and 1989). In this perspective, scholars also study the ways in which norms and values embodied in institutions shape individual behaviour. As norms live in or codify various institutional arrangements, they are then deeply rooted within the very process of institutionalisation. Figure 4.1 demonstrates the way in which new identities and interests (norm emergence) can evolve through various institutional arrangements and structures until that norm becomes institutionalised in political reality as thought patterns and behaviours associated with that norm become internalised in society. Bear in mind that this process is illustrated as a cycle, as the process starts again when a new norm to replace an existing norm.

(See Figure 4.1 on the following page)

Figure 4.1

The Process of Norm Institutionalisation

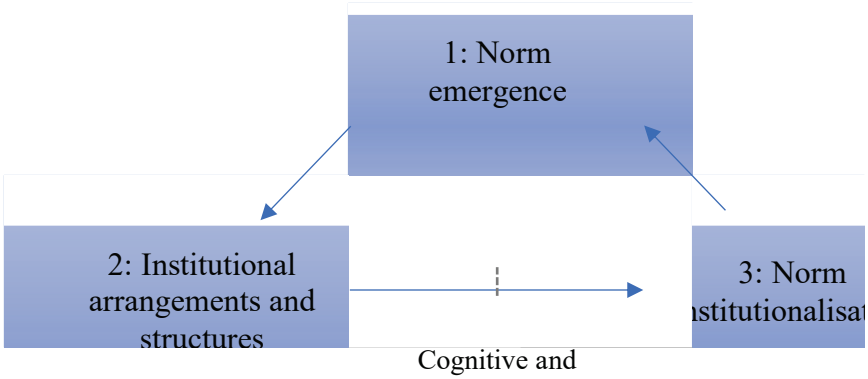


Figure 4.1: The Process of Norm Institutionalisation (Source: Author).

Most significant, scholars have demonstrated the useful assistance of Finnemore and Sikkink's seminal *International Norm Dynamics and Political Change* to understanding the complexities behind norm change in society, particularly in their inquiry into the cascading and institutionalisation of global norms, which provides an interesting analysis. As "work on norm-based behaviour is relevant for explaining political change" (Engelkamp & Glaab, 2015:202), scholars have found unique utility in Finnemore and Sikkink's (1998) norm life cycle model specifically by applying the three stages of norm development to make sense of complex phenomena in the political world order. For example, as indicated in Chapter 1, Davies, Kamradt-Scott and Rushton's (2015) publication applied the norm life cycle to the lengthy passage of the revised process of the IHRs and were able to identify the new norms which embodied the recent IHR (2005) thereof. This study therefore looks to the norm life cycle model to address its research problem and questions. As previously mentioned, Finnemore and Sikkink's model includes three stages: norm emergence (stage 1), norm cascading (stage 2) and norm internalisation (stage 3). The model and its stages are discussed in more detail in the following section, but Figure 4.2 introduces the norm life cycle as presented by them and makes reference to the 'tipping point' between 'norm emergence' and 'norm cascading' to be discussed below. This figure is useful as it neatly conveys the theoretical framework used to address the research problem and questions.

(See Figure 4.2 on the following page)

Figure 4.2

The Norm Life Cycle

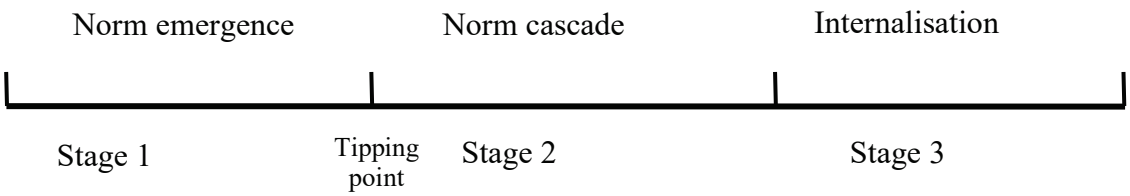


Figure 4.2: The Norm Life Cycle (Source: Finnemore & Sikkink, 1998:896).

The norm life cycle

As indicated the purpose of this section is to present Finnemore and Sikkink's norm life cycle model and introduce the theoretical application for the following chapters that address the research problem and answer the research questions. This section relies for the most part on the contribution of Finnemore and Sikkink's *International Norm Dynamics* published in 1998. Other scholars who have written on various elements of the norm life cycle will also be briefly considered as an indication of where other research has been done, as well as examples to demonstrate ways in which this framework applies to political phenomena. Of course, this section is aligned with the three stages of the norm life cycle as put forward by Finnemore and Sikkink and is therefore divided into three separate parts: Stage 1: norm emergence; Stage 2: norm cascading; and Stage 3: norm internalisation. Stage 1 in particular contains the bulk of the information, indicating how critical the first stage of the norm's life cycle is for norm materialisation. Chapters 5, 6 and 7 then follow according to this theoretical life-cycle framework.

Stage 1: norm emergence

Stage 1 is what Finnemore and Sikkink (1998:896) refer to as the "origins or emergence of norms." Within their explanation of this first stage, they identify three conceptual elements that would need to occur for the successful creation of a new norm: *norm entrepreneurs, organisational platforms,* and *tipping or threshold points.* The latter element was illustrated in Figure 4.2 above as the so-called 'tipping point' between norm emergence and norm cascading. These elements are addressed in turn below.

Norm entrepreneurs are critical for norm emergence as they contribute to the "framing" of the norm, namely through a process that Finnemore and Sikkink (1998:897) refer to as "cognitive framing." The norm entrepreneurs are the agents or actors themselves who call attention to

issues and even *create* an issue through adopting a particular language – what was referred to in the section above as *language of the norms.* The kind of language used strategically by norm entrepreneurs names, interprets and even dramatizes the norm as a means to cognitively frame and construct the norm in such a way that the views of the general public are able to resonate with the values embodied by the norm and henceforth persuaded to believe in the new norm. In another analysis on the IR theory of constructivism, Parsons (2010:95-96) states that persuasion is a common mechanism used by what he calls "conscious advocates, jockeying to persuade other key actors to adopt their agenda." When new norms emerge, they contend within a normative space consisting of other norms and perceptions of interests – this process of contestation entails what Finnemore and Sikkink (1998:897) call the "logic of appropriateness."

The logic of appropriateness is defined according to previously existing norms where activists of a new norm will sometimes be explicitly 'inappropriate' in order to challenge these already existing norms. At this emergent stage, however, Finnemore and Sikkink (1998:897) state that "invoking a logic of appropriateness to explain behaviour is complicated by the fact that standards of appropriateness are precisely what is being contested." This means that invoking or contesting a space of logic (an already existing norm) that is deemed appropriate is a challenging endeavour. This raises the question of what could possibly motivate norm entrepreneurs – to which Finnemore and Sikkink (1998:898), among others who have interpreted this logic (e.g., Viotti & Kauppi, 2012:289), respond that although this typically varies from norm to norm and from entrepreneur to entrepreneur, the persuasive tool or mechanism used is typically deemed as explicitly inappropriate given the already generally accepted norms. These tools include *empathy*, *altruism* and *ideational commitment*:

1. *Empathy* is an interesting motive as it depends on "empathetic interdependence," a strictly cognitive motive where actors are genuinely concerned with the welfare of others, without self-interested thought patterns that pertain to their own wellbeing or security (see Keohane, 1989);
2. *Altruism* occurs in a similar fashion to empathy, but instead refers to the *action* taken by actors to specifically benefit another, again at the expense of their own wellbeing (see Kristen R. Monroe's *The Heart of Altruism,* 1996); and
3. *Ideational commitment* is presented as the main source of motivation behind norm emergence and occurs when norm entrepreneurs promote their norms or ideas solely because "they believe in the ideals and values that embody the norms, even though the pursuit of the norms may have no effect on their wellbeing" (Finnemore and Sikkink, 1998:898).

Organisational platforms emerge following norm entrepreneurs as a means to promote their new norms and is the second conceptual element for the successful creation of norms. Modern international organisations tend to rely on the use of expertise and professional information collected as a dominant source of influence over other actors that could potentially change their behaviour (Finnemore & Sikkink, 1998:899). For example, the creation of specified agencies under the UN, such as the UNICEF (an organisational platform), established to promote and provide humanitarian assistance and developmental aid to children worldwide. At this stage of norm emergence empathy, moral beliefs or possibly even domestic pressures are involved. Finnemore and Sikkink state that:

> Whatever their platform, norm entrepreneurs and the organizations they inhabit usually need to secure the support of state actors to endorse their norms and make norm socialization a part of their agenda, and difference organizational platforms provide different kinds of tools for entrepreneurs to do this (Finnemore & Sikkink, 1998:900).

They go on to say, in line with Wendt and Keohane above, that in most cases the emergent norm needs to be *institutionalised* within a specific set of rules and organisations, for example, the idea of sustainable development has been institutionalised within the SDGs. However, this process of institutionalisation is not a necessarily a condition for stage 2 of the norm life cycle (norm cascade) to occur – "institutionalization may follow, rather than precede, the initiation of a norm cascade" (Finnemore & Sikkink, 1998:900). It is this moment right before norm cascading occurs that the *tipping or threshold point* is reached.

The ***tipping or threshold point*** therefore occurs once norm entrepreneurs, (usually) with their organisational platforms, have managed to persuade a critical mass of states to become what Finnemore and Sikkink (1998:901) refer to as "norm leaders." The determining amount of what constitutes a "critical mass" is said to be at least one third of the total states in the system who would need to adopt the norm, in which case the norm would only then be classified as having reached the 'tipping point'. For example, the process by which a declaration is to be passed within the international community under administration of the UN typically requires at least two thirds of its member states to ratify the document before it is to be implemented. Finnemore and Sikkink (1998:901) add that the state itself is an important factor as some states are more critical than others – "critical states" – and henceforth carry a heavier normative weight that varies from issue to issue. Some critical states, for example, may have more of a green stature, like Sweden and their consistent belief and advocacy in green sustainable development. In sum, what happens at the tipping point is that a sufficient number of states and especially critical states are endorsing the norm, not only redefining appropriate behaviour, but also the very

identity of the state itself. Following the tipping or threshold point, stage 2 of the norm life cycle commences.

Stage 2: norm cascade

Stage 2 sees more normative change than the previous stage in that different norm dynamics occur, particularly after the norm has passed the tipping point. After this, more and more countries adopt the new norms at a rapid pace, to which the motives or leading mechanisms used for rapid adoption go beyond just domestic pressures of, for example, citizen activists. Finnemore and Sikkink (1998:902-903) affirm strongly that the dominant mechanism used behind this stage is an active process of ***international socialisation*** – a process by which many other IR scholars such as Kenneth Waltz and Jefferey Checkel have endorsed. In line with Waltz's (1979) explanation, Finnemore and Sikkink (1998:902) argue that socialisation tends to occur in international politics when diplomatic "praise" or "censure" comes to the foreground, typically reinforced by material sanctions or incentives put forward by the agents or actors (networks of norm entrepreneurs, organisational platforms, and states). Checkel, in his 2005 article "International Institutions and Socialization in Europe" in particular, even presented the concept of socialisation as a synonym for 'social construction.'

As for Finnemore and Sikkink's model, they further suggest that states tend to comply (as "*norm followers*") for reasons that relate to their particular *identity* in the international system. On a states' identity they find that "state identity fundamentally shapes state behaviour, and that state identity is, in turn, shaped by the cultural-institutional context within which states act" (Finnemore & Sikkink, 1998:902). This is a particularly useful contribution to norm research identified by the authors – they credit Katzenstein's (1996) particular analysis – as it aids understanding of the norm's operation with institutional structures and behaviour. As for the international system, Finnemore and Sikkink (1998:903-904) argue that states tend to respond to influences that are possibly motivated by three, fairly psychological, reasons affiliated with "peer pressure": *legitimation, conformity* and *esteem*.

International legitimation is the process by which states affirm their own rules and laws against those of another, and otherwise comply with the recognised international source of legitimation as shaping state behaviour so as to not be classified as 'rogue-states' in the international system. For example, when President Donald Trump stated intention to exit the Paris Climate Agreement, the USA faced loss of reputation, trust and credibility among its peers. The process of legitimation is similar to *conformity* and *esteem* in that states evaluate their own relationship with others ("their state peers"). The power of conformity to group norms (or norms in the international system) is a strong factor, particularly when norm followers wish to deviate from

the group judgement. The same goes for esteem; however, in this scenario the state is protecting its pride or esteem in relation to their particular identity; for example, liberal states would care about following norms that are associated with liberalism (Finnemore & Sikkink, 1998:903-904). Finnemore and Sikkink (1998:904) ultimately claim that "state leaders conform to norms in order to avoid the disapproval aroused by norm violation and thus to enhance national esteem (and, as a result, their own self-esteem)." Essentially, what they mean by this is that following a particular norm enhances the esteem of both the state and its leaders and provides a strategy for avoiding international (or even domestic) ridicule and condemnation. At the extreme end of norm cascade, which typically occurs when the norm is widely accepted, the third stage of the norm's life cycle commences (Finnemore & Sikkink, 1998:904).

Stage 3: norm internalisation

As indicated in Chapter 1, the final stage of the norm life cycle sees norms internalised by actors and in political reality. The norm becomes so widely accepted that a 'taken-for-granted' quality is evident. At this stage, conforming to the norm is almost automatic, and norm behaviour generally goes unquestioned and can even be hard to discern, given that actors no longer consider the norm as a matter of debate. Powerful mechanisms behind this stage of norms can be iterated behaviour or habit, or, most significant, the process of ***institutionalisation*** (Finnemore & Sikkink, 1998:905), as discussed in the above section as a sociologist's institutionalism (Finnemore, 1996). This process unfolds as various identities and interests become internalised through a complex set of institutional arrangements and structures (refer again to Figure 4.1 above).

Finnemore and Sikkink (1998:905) argue that, in addition to the process of institutionalisation, professions and professional training have powerful effects on internalising the norm – mainly because professional training tends to actively socialise people to value certain things over and above others. For example, while doctors are trained to value life above all else, armed forces are trained to sacrifice life if it means they meet their strategic goals. They further state that when/if normative change comes about that this may be both "indirect" and "evolutionary"; that "procedural changes that create new political processes can lead to gradual and inadvertent normative, ideational, and political convergence" (Finnemore & Sikkink, 1998:905). In effect, normative change can be historically addressed and is a plausible future occurrence. The authors neatly illustrate the norm stages or life cycle (see Table 4.3 below), including examples of various actors, motives and dominant mechanisms that exist behind each stage. This table provides a useful summary to understand how the norm functions and what occurs at each stage in the cycle.

Table 4.3

Stages of Norms

	STAGE 1: NORM EMERGENCE	STAGE 2: NORM CASCADE	STAGE 3: INTERNALISATION
ACTORS	Norm entrepreneurs with organisation platforms	States, international organisations, networks	Law, professions, bureaucracy
MOTIVES	Altruism, empathy, ideational commitment	Legitimacy, reputation, esteem	Conformity
DOMINANT MECHANISMS	Persuasion	Socialisation, institutionalisation, demonstration	Habit, institutionalisation

Table 4.3: Stages of Norms (Finnemore & Sikkink, 1998:898)

Conclusion

This chapter has described the theoretical approach to which this thesis adheres – the IR theory of constructivism. It first demonstrated the utility of constructivism against the other primary perspectives of realism and liberalism in IR, finding that the unique and interpretative analysis that constructivist perspectives provide, in particular their inquiry into norm history and behaviour, is useful in addressing the research problem and questions. It then discussed the (re)emergence of constructivism from the 1980s and key constructivist perspectives that have existed to interpret socially constructed phenomena, placing particular emphasis on three key conceptual factors: norms, institutions and institutionalisation. It was within this analysis that the approach of Finnemore and Sikkink (1998) provided a unique way in which to inquire into norm emergence, its diffusion and materialisation, and the internalisation of norms, namely through their norm life cycle model. The final section presented Finnemore and Sikkink's norm life cycle in which the three stages of their interpretation of norm development were examined, namely norm emergence, norm cascade and norm internalisation. As their model fits neatly with the research questions, the norm life cycle ultimately provides this thesis with its clear theoretical and methodological basis. It therefore applies this normative framework in the following chapters to discern the manifestation and diffusion of the norms to combat climate change in GHG, and more specifically, the IHRs. Figure 4.3 shows how Finnemore and

Sikkink's norm life cycle model will be applied to the questions and, in effect, the research problem.

Figure 4.3

The Norm Life Cycle Application

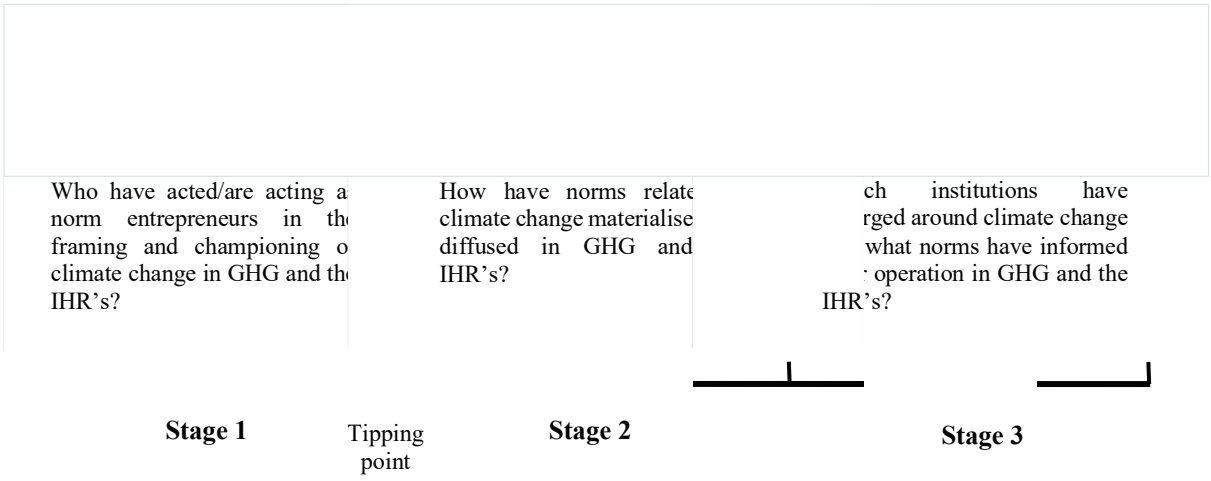


Figure 4.3: The Norm Life Cycle Application (Adapted from: Finnemore & Sikkink, 1998:896).

Chapter 5
Norm emergence in response to climate change in Global Health Governance

Introduction

The primary research question is: *How are the norms developed to combat climate change discernible and manifesting in GHG, and specifically in the IHRs?* The first three chapters contextualised the primary research question and its sub-questions, as well as the research problem. Chapters 2 and 3 in particular contextualised and discussed GHG and GEG, respectively, to reflect the ambiguous association of climate change and health in global governance fields. The previous chapter (Chapter 4) presented the theoretical perspective (constructivism) and the analytical framework (norm theory) that will attempt to solve the research problem and answer the research questions, mainly through the application of Finnemore and Sikkink's (1998) constructivist inquiry into international norm development and behaviour: their norm life cycle model. Bear in mind that a norm is defined as a generally accepted value that define standards of appropriate behaviour. The purpose of this chapter, therefore, is to apply the first stage of Finnemore and Sikkink's norm life cycle (on *norm emergence*) as a means to address the research problem and the research questions. To reiterate, the first research sub-question is: *Who have acted/are acting as norm entrepreneurs in the framing and championing of climate change in GHG and the IHRs?*

Stage 1 of the norm life cycle model is applied in this chapter as a whole. As described in Chapter 1, the case study method used in the application of the norm life cycle entails an analysis of a single unit (GHG) and its segments that operate within this landscape (e.g., the IHRs). It is important to note that this chapter forms part of a larger inquiry into GHG, as it is tightly integrated with Chapters 6 and 7, that apply the other two aspects of the norm life cycle (*norm cascade* and *norm internalisation*) to the research problem and questions. These application chapters (5, 6 and 7) should be read collectively as they apply different facets of the same theoretical tool in order to discern the life cycle of climate change in GHG and their IHRs.

Stage 1: norm emergence

As indicated above, the purpose of this section is to identify the process of norm emergence of the norms to combat climate change in GHG. This will be achieved by applying the first stage of Finnemore and Sikkink's norm life cycle model: *norm emergence*. Finnemore and Sikkink (1998:896) argue that norm emergence occurs when various norm agents and actors have managed to persuade the adoption of a new norm by a critical mass of states. Persuasion is

treated as "central to most empirical studies about normative change and influence," and is therefore the dominant mechanism of norm emergence (Finnemore & Sikkink, 1998:914). They argue further that, in some cases, norm emergence can take up to 80 years or longer to be achieved. Norm emergence is only achieved only once three conceptual elements have merged to create the new norm: *norm entrepreneurs*, *organisational platforms* and the *tipping or threshold point* (Finnemore & Sikkink, 1998:896-897). Each of these conceptual elements will be applied below to identify the various norm entrepreneurs and organisational platforms in the framing and championing of climate change in GHG and the IHRs, as well as to determine whether a critical mass of states within the international community have been persuaded (i.e., reached the tipping point) to adopt the emergent norms relevant to climate change.

Norm entrepreneurs, organisational platforms and the 'tipping point'

Firstly, norm entrepreneurs are critical for the emergence of a new norm. As norm entrepreneurs are referred to as cognitive framers of an emergent norm, they enter a particular space where the norm is either too ambiguous or not yet realised. It is then the overarching mission of the norm entrepreneur to persuade a critical mass of state and non-state actors that interreact within a particular space. Secondly, organisational platforms are referred to as NGOs, and include the larger transnational advocacy networks which these NGOs become part of. Organisational platforms tend to emerge with norm entrepreneurs as norm promoters and, in most cases, are specifically constructed for the purpose of promoting the emergent norm. For example, the WHO was created with the normative stature and purpose to ensure *good health for all*, while operating within a larger transnational network of other international organisations and UN agencies in the global community. Moreover, it is important to note that the dominant mechanism used by norm entrepreneurs and organisational platforms is the art of persuasion. Lasty, only after a *critical mass* of states, usually at least one third of the total number of states, have been persuaded to adopt the emergent norm is it classified as reaching a tipping point. In some instances, *critical states* play a key role in the emergence of norms as they tend to have a heavier normative weight than others on critical issues (Finnemore & Sikkink, 1998:896-901).

Carson and Hardin

Chapter 3 noted the traction gained from various publications in the 1960s; Rachel Carson in *Silent Spring* (1962), and Garrett Hardin in "The Tragedy of the Commons" (1968) attempted to normatively frame the human-induced environmental dilemma. As norm entrepreneurs utilise persuasive and cognitive tools in order to convince others to adopt a new norm (referred to as *the logic of appropriateness* (Finnemore & Sikkink, 1998:897)), both these authors tried to persuade the wider public of the various actions of humanity that cause environmental

damage, if not complete destruction. This can be understood by way of Finnemore and Sikkink's (1998:909) description of norms emerging from within a particular *world time-context.* They argue that world events (for example, major oil spills causing vast damage to marine life) can lead to the search for new ideas and norms that better reflect the context of the time (Finnemore & Sikkink, 1998:909). Finnemore and Sikkink's (1998:898) theoretical model, among others who propose reasons behind norm motivations (e.g., Viotti & Kauppi, 2012:289), indicates that the most predominant persuasive tool and main source of motivation used by norm entrepreneurs is ideational commitment. This motivation resonates with Carson's (1962) commitment to exposing the chemical industry's arbitrary use of pesticides (e.g., DDT) in the USA.

In calling out the chemical industry, Carson (1962) not only dedicated parts of her book to describing the damage caused by pesticides to the human environment, but also to the various human illnesses caused by human pesticide poisoning (e.g., lymphoid and liver cancer). She therefore championed normative framing of humanity's role in destroying and contaminating the natural environment upon which humanity relies. Her book was met with an enormous backlash from the chemical industry, who can be referred to as "norm antipreneurs" (Bloomfield & Scott, 2018). Norm antipreneurs are known as norm resisters, as they attempt to persuade the community to resist embracing the new norm, or in Carson's case, that the evidence provided is too ambiguous to be credible. However, as there appeared to be a growing awareness of environmental damage caused by human activity in the late 1960s and public demonstrations to highlight public health concerns, domestic pressure was imposed upon governments to take action. This was best exemplified in Chapter 3 through Sweden as the first country in the world to implement green legislation through its Environmental Protection Act in 1967. Keep in mind that at this stage of norm emergence, empathy, moral beliefs and most significant motivation, domestic political pressures are involved in norm promotion (Finnemore & Sikkink, 1998:900).

Chapter 3 identified another critical publication, namely Hardin's "The Tragedy of the Commons" (1968). Hardin's (1968) essay re-affirmed the norms put forward by Carson, but also emphasised the broader fact of human irresponsibility and tendency to cause environmental damage, despite knowing the cost of their behaviour (seen in Carson's example of human pesticide poisoning caused by the chemical industry). Hardin used a rhetorical effect and simple analogy in order to persuade the readers to use their own imaginations. The story is presented in a short summary below:

> Hardin first asks his readers to imagine an old English village where all residents share a common pasture for their privately-owned cattle to graze. For every animal added to

> the pasture, these residents derive personal income. The use of the pasture has no enforceable limits, in that the villagers will continue to add cattle to the pasture on the basis of rational calculation, even after the pasture becomes overgrazed. Hardin argues that the gains from constantly adding their cattle to graze outweigh the costs, irrespective of the fact that the shared pasture will eventually become too overgrazed and damaged beyond use to any villager (the so-called "tragedy"). He does not, however, discount those who try and act responsibly, but rather argues that irresponsible members (what he calls "free-riders") take advantage of responsible members, whose lost income falls in the hands of the free-riders that continue gain by adding cattle to the pasture. Hardin foresees that those who voluntarily act responsibly for the sake of the common pasture will, over time, eventually become self-eliminated, as they become disillusioned with the fact that their sacrifices are being abused by others, who continue to act irresponsibly (Hardin, 1968; Soroos, 2005:36).

A norm champion, Hardin recognised humanity's tendency to abuse natural resources, even at the cost of an evolving global tragedy. Moreover, his analogy is applicable to everyday human activities which impact on national and global resources, particularly as a result of humanity's (and countries') pursuit of their own (national) self-interest and advantage (Soroos, 2005:48). This understanding is similar to the approach by rational choice theorists briefly discussed in the previous chapter. Hardin not only believes in the "tragedy of the commons," but is also motivated by a need to understand humanity's behaviour at the expense of the human environment (and the global "commons"). His description of those who act responsibly, but still get taken advantage of, also motivates some kind of sympathy towards those who act in a responsible way. As such, Finnemore and Sikkink's (1998:898) description of the persuasive tools of both ideational commitment and empathy provide an explanation of Hardin's motives in endorsing these new norms.

Finnemore and Sikkink (1998:898) argue that *altruism,* much alike empathy, occurs when state actors take specific actions to benefit others. It has also been described as an "action designed to benefit another even at the risk of significant harm to the actor's own wellbeing" (Monroe, 1996). Finnemore and Sikkink (1998:900) argue that garnering support from state actors is critical, as they can take action to endorse the norm within their agenda. Other countries began to emulate the agenda of the country of Sweden, for example, the USA signed in its first NEPA legislation two years after Sweden in 1969 (Soroos, 2005). When considering the race towards economic (capital) development, which environmental policies could hinder many industry practices, state actors who endorse norms of environmental protection are understood to be motivated by altruism.

Other environmental agendas were emerging, for example, Chapter 3 discussed the emergence of two studies undertaken by university professors, scientists and federal agencies in the USA in 1970: the SCEP and the SMIC. Both studies were initiated and organised by Carrol L. Wilson who can also be called a norm entrepreneur framing 'mans impact' on climate change and on the natural environment. In addition, the first Earth Day in 1970 cannot be ignored as sparking grater global environmental awareness (now an event celebrated in almost all countries worldwide). In terms of Finnemore and Sikkink's theory (1998:900), the first Earth Day can be explained as an influential platform promoting environmental teaching on and support for environmental protection.

Organisational platforms tend to emerge with norm entrepreneurs as promoters of the norm. As such, near the end of 1970 the USA established the EPA to promote environmental protection (and its associating normative framework) across the country. No norm entrepreneur works alone, to which the EPA's proposal to adopt the new norms put forward by Rowland and Molina in their 1972 scientific publication is discussed below. Before this, however, Sweden had played a leading role within the global community towards leading a global framework for environmental protection in many countries worldwide.

The Stockholm Conference on the Human Environment

According to Finnemore and Sikkink (1998:901), to reach a tipping or threshold point "it also matters which states adopt the norm." One of the most significant examples is Sweden, which already had an emerging global, normative reputation for green sustainability as the first country in the world to implement environmental legislation. As a norm leader, Sweden proposed to an intergovernmental organisational platform behind the UN, the UNGA in 1968, hosting the first international conference in Stockholm on addressing global environmental problems (*The Stockholm Conference on the Human Environment/UNCHE*). In this case, Sweden established a normative identity for large-scale environmental protection (see again Table 4.2), attempting to redefine the identity and behaviour of other states within the international system (Finnemore & Sikkink, 1998:902). In line with Chapter 3's discussion on the conference (mainly presented through the conference analysis by Sohn (1973)), its overarching objective was to prepare a declaration on the Protection and Preservation of the Human Environment that set a common agenda and explicit principles to inspire and guide all member states. A Draft Declaration had already been put forward in 1972 by the Conferences Preparatory Committee, when it was found that most countries involved had already agreed to the proposed rules, norms and principles by the time of the conference (Sohn, 1973).

The Stockholm Conference itself brought together representatives from more than 100 countries worldwide for a period of 11 days, during which a total of 26 broadly defined

environmental principles were adopted by member states through the Declaration (Sohn, 1973). Finnemore and Sikkink (1998:900) argue that the process of institutionalisation, described in Chapter 4 as the point when an emergent norm has become institutionalised within a specific set of international rules and organisations, is not a necessary condition for norm cascade. But they point out that in most cases for an emergent norm to reach a threshold point, it needs to be institutionalised within specific sets of international rules or organisations. In the case of environmental protection norms, institutionalisation appears to be the precondition for norm cascade within the broader global community, although this process of norm development in GHG is not as straightforward as one might like.

Chapter 3 noted key parts of the Declaration. The first, and most significant for the human health dilemma, was presented under Principle 7:

> States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea (UNCHE, 1972).

This principle was regarded as one of the first within the global community to directly associate human health with environmental damage (on the emergent norm that a polluted sea would be liable to create hazardous human health events and damage marine life). Secondly, Principle 22's broad reference to "other environmental damage" was presented as hinting at the problems associated with climate change, or rather what Sohn (1973:495) calls "climate modification" (UNCHE, 1972). As a final part, all the principles of the Declaration were officially adopted by a total of 113 countries, all of which adopted the new norms associated with protecting the natural environment from pollution, public health, and managing shifting climate patterns. Again, Finnemore & Sikkink (1998:901) theorise that the tipping or threshold point refers to when a critical mass of states (usually one-third of the total number of states) have been persuaded to adopt a new norm.

What happens at the tipping point is that a sufficient number of states (including enough critical states) endorse the new norm and redefine appropriate behaviour (Finnemore & Sikkink, 1998:902). Mainly through the adoption of Principles 7 and 22, the Stockholm Declaration is regarded a tipping point within the global community consisting of countries that have endorsed the norms of protecting human health from hazardous environmental events, namely a polluted sea and a changing climate. In this case, the norms operate, to a considerable degree, as rules constituting the identity of member states to the Stockholm Conference, and as standards regulating standards of appropriate behaviour (Viotti & Kauppi, 2012). This tipping point occurred ten years after the norm entrepreneur Rachel Carson (1962) first initiated what became the environmental movement. It is noteworthy, however, that climate change was still

an ambiguous issue within the global community, particularly for GHG, especially considering the Declaration's broad reference to "other environmental damage." Nevertheless, the importance of the Stockholm Conference within the broader global community should not be under-estimated, given that it set a precedent for GHG in line with environmental considerations. Following from the Stockholm Conference, other norm champions and organisational leaders began to emerge within this transnational network. One key organisational platform stemming directly from the Conference itself was the establishment of the UNEP (Sohn, 1973).

Rowland and Molina

Scientists Sherwood Rowland and Mario J. Molina were identified in Chapter 3 as among the first norm entrepreneurs to frame *climate change* as a human dilemma in the first half of the 1970s. Their seminal scientific paper and hypothesis, "Stratospheric sink for chlorofluoromethanes: Chlorine atom-catalysed destruction of ozone" (1974), attempted to persuade others of a new norm associated with the depletion of the ozone layer. Much like Carson and Hardin, norm entrepreneurs Rowland and Molina were fully committed to promoting and embodying the values of the norm and were therefore also acting on the basis of what Finnemore and Sikkink (1998:898) refer to as ideational commitment. Framing the new norm, Rowland and Molina noted that the atmosphere has a finite capacity for absorbing various chemical compounds, in particular CFCs. They further hypothesised that, when released by certain propellants (e.g., hairsprays or machinery), these chemical compounds have a destructive reaction with the earth's atmosphere, causing damage to the ozone layer. Their research found that in the USA alone the rate at which CFCs were being added to the atmosphere had increased by an average of 8.7% per year over a ten-year period. They further argued that UV radiation from the sun, which increases with a depleting ozone layer, causes various human health conditions and illnesses (e.g., skin cancers), as well as accelerating the effects of global warming (Rowland & Molina, 1974).

On the contrary, at the time of their paper, other scholars were motivated by a different ideational commitment than of Rowland and Molina. Bryson and Dittberner (1976) argued that global cooling would transpire across the Northern Hemisphere as they found evidence of temperature declines over a period of 30-years. Nevertheless, the norm of global warming was found to be more widely accepted within the global community. Such antipreneurs, however, are still important to the framing and re-affirmation of the emergent norm (Bloomfield & Scott, 2018). According to Finnemore and Sikkink (1998:908), the relation between new normative claims and existing norms, as posited by Carson and Hardin, may also influence the likelihood of the norm's influence, particularly in the international community. They argue that the

adjacency claims or path dependency of norm entrepreneurs to other existing/emerging norms, usually exercised in the framing of and persuasion to adopt their new norm, is likely to have a greater influence in international law (Finnemore & Sikkink, 1998:908).

Winchester (2009:12), as discussed in Chapter 3, argued that the USA was one of the first nation states to hold formal hearings in 1977 on the depletion of the ozone layer. Sweden was identified as the first country in the world to ban the use of CFCs in aerosol products, such as in hairsprays and deodorants, on 23 January 1978. Other countries emulated with similar legislation to the EPA, an identified platform behind the promotion of environmental protection in the USA, which successfully passed legislation banning the use of CFCs in aersorol products. Another three examples are worth noting: the Netherlands issued a requirement for label warnings on various propellants containing CFCs in 1978; West Germany reached an agreement to significantly reduce the use of CFCs in aerosols by 1981; and the UK began encouraging industries to intensify their research for alternatives to CFCs and to find ways to minimise its use (Downing & Kates, 1982: 268). Rowland and Molina may then indeed be regarded as norm champions in dealing with the dilemma of a depleting ozone layer from CFC emissions, accelerating the effects of climate change and the dire consequences facing human health.

Made clear above, Rowland and Molina were able to frame the norm, namely the banning of the use of CFC's in aerosol products, within various domestic laws, as endorsed within many Western countries who institutionalised this banning within their various political arrangements and structures. The norm is understood to have operated in each of these countries as both a rule and standard. As the process of institutionalisation unfolds, it tends to be an important facet behind an emergent norm, particularly because various cognitive and behavioural changes follow in the wake of new norms (see Marsh & Olsen, 1984, 1989; Finnemore & Sikkink, 1998; Lowndes, 2010; Engelkamp & Glaap, 2015). The IHRs, important to the research questions and problem, provide an interesting case in providing an international normative structure and framework for GHG. At this time of norm emergence, the IHRs, most recently amended in 1969, were facing various challenges regarding its limited (normative) scope. As discussed in Chapter 2, the IHRs have a long and nuanced history and have undergone various changes (Box 2.2). Fischer, Kornblet and Katz, in an in-depth assessment of the IHR, state that:

> Changing human, animal, and vector behaviors and environmental pressures gave rise to new health risks. Experts began to report an average of one newly discovered infectious disease of public health significance each year. The IHR (1969) had no answer to emerging infections such as

> dengue fever that spread to new populations or returned to old ground in more virulent form. Most importantly, the regulations had no means to adjust to an explosion in international air travel that now sees an estimated 2.2 billion passengers each year (Fisher, Kornblet & Katz, 2011:7).

Too narrow in scope to compensate for this particular world-time context of globalisation and of emergent and re-emergent outbreak of diseases (as well as existing against the WHO's disease eradication efforts and Health for All campaign), the IHR (1969) revealed the need for new international legal frameworks for countries on disease control. Most significantly, the rules did not yet include environmental factors, climate change and the threat of various other diseases (like ECDs) within their scope towards helping countries manage public health threats. Yet norm institutionalisation appeared to have occurred in other global health agendas in the final two decades of the 20th century, as the need to address the problem of a depleting ozone layer gained a particular normative stature within global political agendas. This will be discussed below in examining the more definitive tipping point for the development of norms to combat climate change in GHG.

The Vienna Convention for the Protection of the Ozone Layer

Norm champions of the rate to which CFCs deplete the ozone layer, Rowland and Molina's views found further traction under the auspices of the UNEP, which provided an international, non-political forum to begin discussions towards setting up the first global framework convention to protect the ozone layer, *The Vienna Convention for the Protection of the Ozone Layer* (1985). Moreover, other chlorine compounds, such as the consequences of DDT framed by Carson's (1962) analysis presented earlier, bore witness. As discussed in Chapter 3, the Vienna Convention (1985) laid out various commitments of Parties to coordinate the response of member states taking action to protect the ozone layer and combat its depletion. Article 1 of the Convention defined the *"Adverse effects"* of a diminishing ozone layer, including climatic considerations that have "deleterious effects on human health," as well as on humanity's ecosystems on which we rely. Moreover, in the climate-health nexus discussion, Chapter 3 found that this definition placed human health at the forefront of international political debate on climate change. The Convention included various protocols addressing the "adverse effects" of a depleting ozone layer that were positioned more definitively within GHG for the first time (UNEP, 2001).

The Vienna Convention officially entered into force in 1988. By this time, the Convention had been ratified by a total of 49 countries, thus meeting the one-third limit of a tipping point set by Finnemore and Sikkink (1998:901). In ratifying the Convention, member states endorsed the emergent norm, specifically in their ratification and adoption of the conventions to combat

the threats posed by a diminishing ozone layer. As the Convention emerged with the purposes to combat ozone layer depletion, it is an obvious tipping point between norm emergence and norm cascade in the cycle of norms in response to climate change in global health agendas. From the time that Rowland and Molina published their scientific report in 1974 to the ratification of the Convention by 49 countries in 1988, around 14 years had passed until norm emergence was achieved. Going back to Carson's (1962) norm entrepreneurship of human produced pesticides (e.g., DDT), however, up until 49 countries ratified the Convention (1988), the norms of environmental protection took over 20 years to move beyond Finnemore and Sikkink's (1998) first stage of norm emergence. In addition, similar to the situation with the Stockholm Conference, the normative framework and structure behind the Vienna Convention sees the norm endorsed by countries operating as both rules (constituting state identity) and standards (regulating state behaviour).

The process (and ratified structure) by which various state and non-state actors persuade countries to adopt new norms is therefore significant to understanding and explaining the emergence of climate change in GHG and the IHRs. Bear in mind that this process occurs within a transnational network of norm entrepreneurs, states and international organisations, which lead to the Stockholm Declaration and the Vienna Convention, and ultimately set the stage for and positioned the emergence of the norms to combat climate change in GHG and the IHRs. Moreover, it should be said that other events or organisational platforms not mentioned here – such as the founding of Greenpeace in the USA in 1971, the efforts by the WMO in promoting atmospheric science, and the first World Climate Conference in 1979 attended by scientists from a wide range of disciplines familiar with climate change (e.g., on meteorology and shifting weather patterns) – should not be regarded as less important agents or actors in the framing and first emergence of international norms relevant to climate change (Interview, Katharine Pulvermacher, 29/09/2020).

Conclusion

By applying the first stage of Finnemore and Sikkink's (1998) norm life cycle, and by examining GHG as a case study, this chapter has addressed aspects of the research problem and the research questions. First, this chapter identified key norm entrepreneurs, namely Carson, Hardin, Rowland and Molina, as framing and championing various environmental norms, where the latter entrepreneurs, Rowland and Molina, were critical norm champions behind the less ambiguous framing of human-emitted CFCs that deplete the ozone layer. Second, it identified various organisational platforms, such as the EPA, the UNCHE, and the UNEP, as integral norm agents promoting the norms of norm entrepreneurs. Sweden was further identified as a critical state in its proposal to the global community that it convene the

first international conference dealing with matters relating to environmental protection. Although not directly referring to climate change, Principle 7 and Principle 22 of the Stockholm Declaration (1972) should not be overlooked as highlighting the emergent norms to protect human health from hazardous environmental events, as well as from its vague reference to 'climate modification.' As The Declaration was ratified by 113 countries, it can be seen as aligned with Finnemore and Sikkink's (1998:901) definition of a norm tipping as over one third of the total number of states ratified the agreement. This tipping point set a precedent for and within GHG.

The Vienna Convention (1985), however, was identified as a more definitive tipping point between norm emergence and norm cascade, mainly because the norms developed to combat climate change were directly endorsed and adopted by member states. This was due in part to norm champions, Rowland and Molina, who hypothesised that the rate at which CFCs deplete the ozone layer has disastrous consequences to human health. By the time The Convention entered into force in 1988, it was ratified by a total of 49 countries, all of whom adopted its normative framework around combatting the depletion of the ozone layer. At this stage, various Western countries had already endorsed the norm by banning the use of CFCs in aerosol products (e.g., Sweden, the USA, the Netherlands, West Germany and the UK). In these instances, as well as in member states signed up to the Vienna Convention (1985), the norm was found to operate as conferring and redefining state identity, as well as regulating state behaviour. Both tipping points demonstrate Finnemore and Sikkink's (1998:900) argument that the process of international institutionalisation usually occurs right before norm cascade. It was further found that the IHR (1969) at the time of these events (and others occurring in the world-time context, such as an accelerating globalisation and ECDs) were facing numerous challenges and did not yet include a response to climate change.

It should be reiterated that identified norm entrepreneurs, events and organisational platforms are by no means exclusive, but rather exemplify the major players behind the framing and championing of climate change in GHG. Moreover, it appeared that most of the norm entrepreneurs mentioned above were ideationally committed to the norm, which meant they used the dominant mechanism of persuasion in order to convince enough states in the broader community to adopt the new norms. It can also be argued that environmental norms had to have first emerged onto the broader global stage before those in response to climate change, in particular, could find a secure footing within the global health community through the Vienna Convention (1985). This provides an interesting case of incorporating a second tipping point in the norm life cycle model. Ultimately, through the application of the first stage of the norm life cycle, the norms developed to combat climate change did indeed achieve norm emergence

in GHG and began to cascade by the final two decades of the 20th century. However, climate change and its links to human health were still a growing and ambiguous field at this time. Whether norms diffused beyond the tipping point(s) is to be investigated in the following chapter. Chapter 6 should be read as a continuation of the application of Finnemore and Sikkink's (1998) norm life cycle, specifically referring to Stage 2 on climate change in GHG and the IHRs, namely *norms cascade*.

Chapter 6
Norm cascading in response to climate change in Global Health Governance

Introduction

By applying Finnemore and Sikkink's (1998) norm life cycle model, the previous chapter discussed Stage 1, norm emergence, in order to discern norm entrepreneurs in the framing and championing of the norms in response to climate change in GHG. Norm entrepreneurs, such as Rowland and Molina, were identified as championing the norm of CFCs which deplete the ozone layer; and the ratified Vienna Convention for the Protection of the Ozone Layer (1985) was described as the more definitive tipping point within the global community on adopting the norms for the protection of human health. Finnemore and Sikkink (1998:900) argue that in most cases an emergent norm reaches a tipping point once it has been institutionalised within specific sets of international rules or organisations, which was found to be the case for developed norms to combat climate change in GHG. After emergent norms pass the tipping point, however, different norm dynamics come about in the second stage of the norm life cycle, whereby more normative change takes place than in norm emergence (Finnemore & Sikkink, 1998:902).

Having considered the emergence of norms in response to climate change in GHG in Chapter 5, the purpose of this chapter is to apply Stage 2 of the norm life cycle (on norm cascade) to address another aspect of the research problem and research questions. To reiterate, the second and third sub-research questions are: *How have norms related to climate change materialised and diffused in GHG and the IHRs? Which institutions have emerged around climate change and what norms have informed their operation in GHG and the IHRs?* As in Chapter 5, this chapter as a whole instead explains norm cascading in GHG and the IHRs. It should be therefore be read as a continuation of the previous chapter. As discussed in Chapter 4, at this stage of the norm life cycle more countries tend to adopt news norm at a rapid pace even without the involvement of domestic pressure. Moreover, the process of both institutionalisation and socialisation becomes an integral part of norm cascading (Finnemore & Sikkink, 1998:902).

Stage 2: norm cascade

The purpose of this section is to apply Finnemore and Sikkink's (1998) second stage of their norm life cycle on climate change, norms cascade, to the development of GHG. According to Finnemore and Sikkink (1998:902), the process of socialisation, a dominant mechanism of norm cascade, in international politics tends to involve diplomatic "praise" or "censure." They

argue that states and non-state actors play a critical role as the agents or actors of socialisation within the international system within which more norm leaders persuade others to adopt the emergent norms and become "norm followers" (Finnemore & Sikkink, 1998:902). Following norm emergence, the process towards norm institutionalisation sees more cognitive and behavioural change that is accompanied by various institutional arrangements and structures (see Figure 4.1). This section therefore identifies various states and international organisations, and the transnational networks within which they operate, that have led to greater norm adherence in the international system.

States, international organisations and networks

According to Finnemore and Sikkink (1998:903), the concept of socialisation, which suggests that state elites have a cumulative effect of persuading many countries to adopt new norms, is analogous to the concept of "peer pressure." By this they mean that states fashion a political identity in relation to the international community, insofar that they incur "evaluative relationships" with their "peers." Moreover, as international organisations are also important agents operating within transnational networks of socialisation, they further pressure targeted actors to adopt new norms, either in the form of policies and laws, or international treaties to be ratified, as well as monitor state compliance. By adhering to a norm, cascading states become "norm followers" who act out of various psychological motives: namely a desire for *legitimacy, conformity* or *esteem* (see Table 4.3) (Finnemore & Sikkink, 1996:902-903).

Networks of socialisation

As the Vienna Convention (1985) was identified in the previous chapter as a clear indication of norm emergence in GHG, by the final decade of the 20th century other critical international organisations began to position and assess the norms related to climate change within their 'socialising' agendas. As indicated, international organisations play a crucial role as the agents or actors of socialisation. In a semi-structured interview with Tanya Brodie Rudolph, a key informant in international environmental protection and policies, she stated that the framing of climate change is "ostensibly the framing of the UN and the big NGOs" (Interview, Tanya Brodie Rudolph, 12/10/2020). Finnemore & Sikkink (1998) refer to the work of Claude (1996), who described a core political function behind the UN as *collective legitimation.* Claude (1996:371-372) calls international organisations custodians of "seals of international approval and disapproval," implying that they appropriate some kind of legitimation for establishing and assuring international norm adherence. As the UN carries significant weight as an international norm "custodian" (Claude, 1996:371-376), other international organisations and agencies were created within this transnational network as agents of socialisation of the norms developed in response to climate change.

The IPCC, for example, emerged a norm leader within GHG in its First Assessment Report published in 1990. The report, discussed in Chapter 3, to some degree introduced the human health impact of climate change (namely in *Climate Change: The IPCC Impacts Assessment*, *Section V*). Around six pages in total were dedicated towards framing the human health impact associated with climate change, highlighting several human sensitivities, such as the *seasonality of deaths*, *heat stress*, *air pollution*, *chemical pollution*, *water quality*, *vector-borne diseases* and *UV radiation* (IPCC, 1990). The latter [UV radiation] is adjacent with the framing presented in Chapter 5 by norm entrepreneurs, Rowland and Molina, which adjacent claims that correlate to others (in this case, Rowland and Molina) are argued to enhance more norm influence (Finnemore & Sikkink, 1998:908). Finnemore and Sikkink (1998:899) argue further that a prominent feature of modern organisations is "their use of expertise and information to change the behaviour of other actors." The IPCC, whose underlying purpose is to conduct research, assess and provide expert information relating to climate change, is one such modern organisation attempting to reframe the identity and behaviour of others towards dealing with the dilemma of climate change.

Following the IPCC's First Assessment Report, the WHO released its own preliminary assessment on behalf of a Task Group made up of international experts dealing with the links between climate change and human health. As also discussed in Chapter 2, the WHO is recognised as the global hegemon in the global governance of health, making this platform a crucial promotor of the norms relating to combating the threats posed by climate change in GHG. An interviewee re-affirmed this finding by stating that "when I see the words 'Global Health Governance' I automatically think of the WHO" (Interview, Katharine Pulvermacher, 29/09/2020). The 1990 WHO Report, titled *Potential health effects of climate change,* consisted of around 49 pages that attempted to reformulate the way in which state policymakers and public health planners address public health concerns by including emergent norms in response to climate change. The report outlined several direct and indirect impacts of climate change on human health, summarised in Table 6.1. It further framed various determinants of the net effects of climate change on health, namely age, hygiene level, socioeconomic status, skin pigmentation, geographical location, and the general health status of the individual (WHO, 1990). This 1990 report demonstrates the WHO is a norm leader in GHG, which for the first time attempted to frame and socialise state actors on the correlation between climate change and human health.

Table 6.1.

Direct and Indirect Effects of Climate Change on Human Health

Direct effects	Indirect effects
1. Climatic stress on the human body	**1. Food and nutrition:** a. Nutritional requirements b. Food production c. Effects of UV radiation on biota other than man (marine organisms; terrestrial plants)
2. Thermal factors: a. Heat disorders	**2. Communicable diseases:** a. Vector-borne diseases (e.g., malaria) b. Non-vector borne diseases (e.g., diarrhoeal diseases)
3. UV radiation: a. Increase in skin cancer b. Possible alterations in immune response c. Effects on eye diseases d. Positive effects of UV radiation through vitamin D e. Adaptation to UV radiation f. Air pollution	**3. Human migration:** a. Temporary migration following natural disasters b. Patterned migration c. Climate-induced migration

Table 6.1: Direct and Indirect Effects of Climate Change on Human Health (Source adapted from: WHO, 1990:16-46).

Another international (socialising) organisation is the creation of the framework convention for climate change, the UNFCCC, presented in Chapter 3. The platform was opened for signature at a crucial climate event convened on the twentieth anniversary of the Stockholm Conference (1972), namely the Rio Earth Summit of 1992. The UNFCCC was created with the aim of stabilising greenhouse gases released into the atmosphere by setting various standards or rather "emission targets," in order to prevent any dangerous interference with the earth's atmosphere and climate system. The establishment of the UNFCCC can also be understood to have emerged out of the hypothesis of CFCs that deplete the ozone layer developed by Rowland and Molina. To reiterate from Chapter 3, the UNFCCC is organised according to a three-part, basic institutional structure guiding procedural rules and practices to combat the threats posed by climate change: it is made up of mainly (1) the COP; (2) the COP's two subsidiary bodies on advice and implementation; and (3) a secretariat (Depledge, 2005:21-22).

The first Convention of the UNFCCC, convened in Rio upon its ratification by 154 countries in 1992, included a similar definition put forward by the Vienna Convention (1985), discussed in the previous Chapter on the "adverse effects of climate change" (UNFCCC, 1992:3). In

addition to indicating ten other commitments of Parties to the Convention, it significantly added in Article 4 (5-9):

> Take climate change considerations into account, to the extent feasible, in their 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 (UNFCCC, 1992:6).

Through its inclusion of public health, the UNFCCC spoke to the emergent norms relating to the adverse effects of climate change for human health, in that all parties to the Convention were being socialised by the various ratified commitments. It is thus evident that international organisations such as the UNFCCC, the IPCC and the WHO played major roles as socialising agents of norms cascading in response to climate change in GHG at the turn of the century, some of which used contributions by other norm entrepreneurs in order to frame a less ambiguous norm.

Anthony J. McMichael

Although writing sometime after the crucial events leading to the first emergence of climate change in the global community, McMichael was one of the first academics to dedicate his work to the human health effects of climate change and as such is another crucial norm entrepreneur. Finnemore and Sikkink (1998:899) argue that norm entrepreneurs often work from "standing international organisations that have purposes and agendas other than simply promoting one specific norm," and that "usually norm entrepreneurs need to secure the support of state actors to endorse their norms and make norm socialisation a part of their agendas" (Finnemore & Sikkink, 1998:900). This is the case for McMichael who worked with leading international organisations in order to both endorse and socialise the norms. Some of the work published by McMichael was already presented in Chapters 2 and 3, as he evidently continues to frame climate change and health links in the 21st century (McMichael, 1993; McMichael et al., 1996; McMichael et al., 2003; McMichael & Woodruff, 2005; McMichael, 2013).

An Australian epidemiologist, McMichael was particularly interested in the crisis arising in the Anthropocene, when it is believed that an overpopulated (capitalist-oriented) environment would lead to the deterioration of the planet and all its ecosystems as a result of human activity. McMichael's seminal contribution, also described in the climate-health nexus discussion in Chapter 3, is his book published in 1993, *Planetary Overload: Global Environmental Change and the Health of the Human Species.* As the book emphasises ecological disruptions, such as ozone layer depletion, land degradation and global warming (also addressed by the norm

entrepreneurs Carsen, Hardin, Rowland and Molina), to name a few, they are further described as causing various human health conditions, for example, cancer, malnutrition due to food shortages, and intensified disease patterns. The norms framed to deal with human-induced degradation of the planet are ultimately associated by the author with conspicuous consumption, over-population and vast technological expansion (McMichael, 1993).

The motives of both empathy and ideational commitment once again resonates strongly in McMichael's work, as he devotes his life to studying the health of workers within noxious industries, believing strongly that the human-induced environmental and health dilemmas are caused by climate change. McMichael's commitment to the subject of human health and climate has, indeed, been widely acknowledged by the global health community. This has been exemplified in the positive reception of his many contributions in various global assessments. As mentioned in Chapter 3, he co-authored the Health Risk assessment section in the IPCC's Second Assessment Report of 1996 as a contribution by Working Group II on "Impacts, Adaptions and Mitigation of Climate Change". By the time of the IPCC Third Assessment Report (2001), his assessments were focused on larger issues deriving from the potential risks of climate change for human health. The Third Assessment Report (2001) not only dedicated an entire section to assessing these potential human health impacts, but also included discussions on the emergence of actual human health impact events, potential health effects, as well as a review of the health impacts of climate change from regional perspectives worldwide.

Most significantly, McMichael contributed as a co-author to the WHO's 2003 publication in its entirety, *Climate change and human health: risks and responses*. The latter publication saw a more penetrating description of the links between climate change and health (Figure 6.1). In this account McMichael et al. (2003:271) argued that the driving forces of populational dynamics and unsustainable economic development trigger an increase of greenhouse gas emissions. These emissions are positioned with humanity's role in accelerating the climate change dilemma, understood to have an impact on regional weather changes such as extreme heatwaves and rising global average temperature. These weather changes are then shown to correlate with greater public health threats (e.g., temperature-related illnesses such as cardiovascular disease as well as deaths from heatstroke).

(See Figure 6.1 on the following page)

Figure 6.1

Climate Change and Health: Pathway from Driving Forces through Exposure to Potential Health Impacts

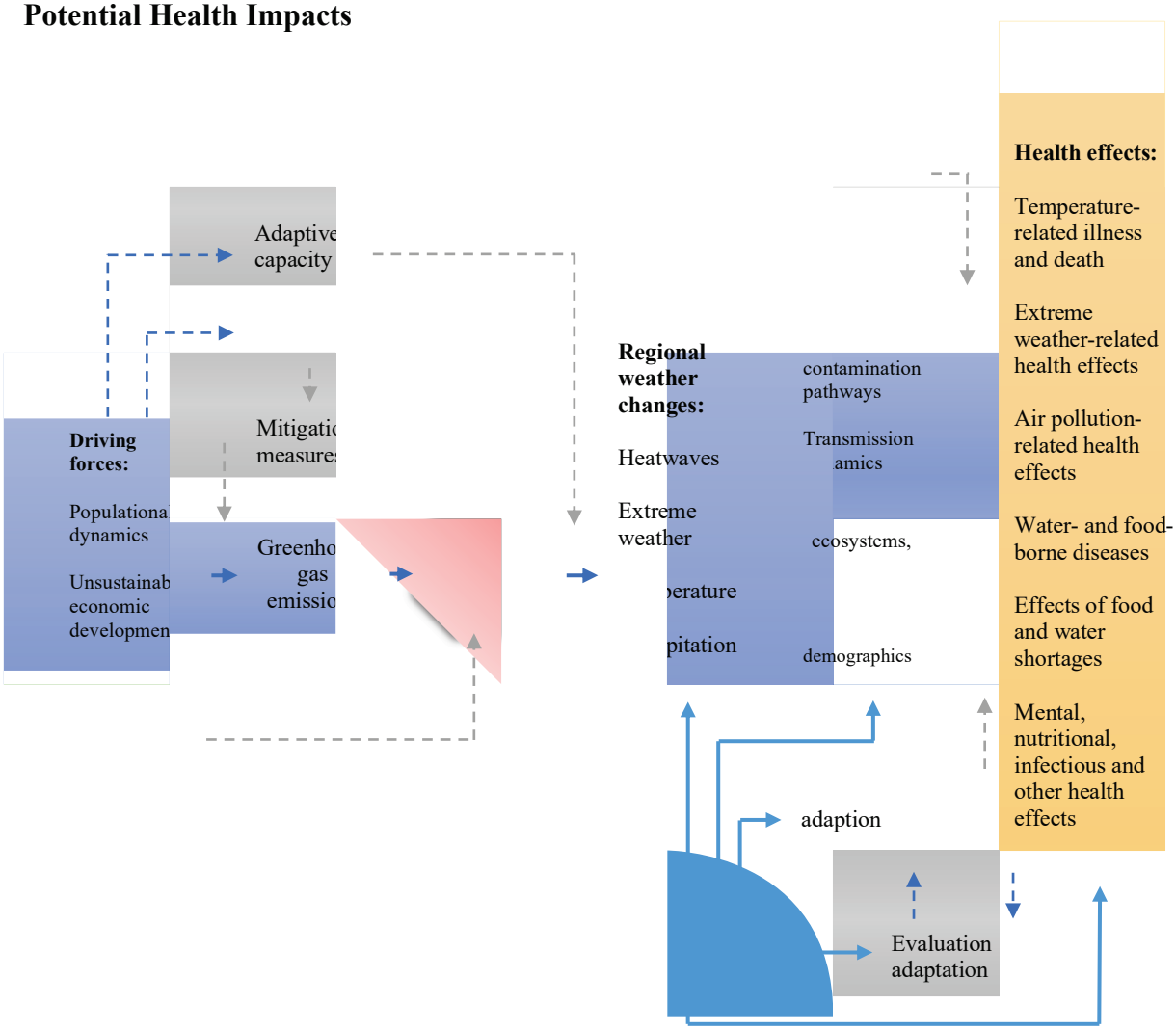


Figure 6.1: Climate Change and Health: Pathway from Driving Forces through Exposure to Potential Health Impacts (Source: McMichael et al., 2003:271).

Through its publications, the IPCC and the WHO adopted the role of norm leaders endorsing the norms to address climate change, whereby McMichael's position is in line with the global agenda of these international organisational networks. As McMichael endorsed the emergent norms to deal with climate change by aligning his work with these international organisations, the IPCC and the WHO therefore ultimately worked to "shape the content of norms" in a global landscape (Finnemore & Sikkink, 1998:899). Moreover, the norms can be understood as constituting, in part, the identity of these networked organisational platforms, in which they played the role of socialising agents of the climate-health nexus, despite their rather ambiguous

references at the time. Norm entrepreneur McMichael would then be a critical norm leader in the framing and championing of the norms in response to climate change in GHG, as his particular engagement with this transnational network of international organisations saw more norms in response to climate change cascade across various GHG arrangements and agendas. In 2002, for example, the WHO in fact included climate change for the first time in its study of the global burden of disease estimates.

Beyond the tipping point: international treaties as norm legitimisers

Finnemore and Sikkink (1998:902-902) argue that when cascading states adopt the new norm relative to their peers, they do either for legitimation, conformity or esteem. The Vienna Convention (1985) had already been ratified by 49 states by the time it entered into force in 1988, after which the norms relating to climate change and its adverse effects on human health were adopted by member states. The Montreal Protocol on Substances that Deplete the Ozone Layer (1987) came after the Vienna Convention (1985), and was more focused on ozone-depleting substances by institutionalising their phasing out in production and consumption in member states worldwide (e.g., CFCs). As more countries need to adopt the new norms at a rapid pace without the push from domestic pressures for it to be classified as cascading (Finnemore & Sikkink, 1998:902), the Montreal Protocol (1987) came into effect after obtaining signatures from 46 countries for ratification. After meeting ratification conditions, the Protocol (1987) officially entered into force in 1989, with an additional 51 countries accepting ratification by the end of that same year. The Montreal Protocol (1987), indeed, demonstrates more country adherence to the norms of phasing out substances that deplete the ozone layer.

Finnemore and Sikkink (1998:902) argue that peer pressure among states (mainly the power of conformity) plays a role behind the decision of countries to ratify treaties, particularly because most state leaders and representatives do not wish to be singled out in international reactions as “rogue states”. Moreover, as some countries ratify treaties to maintain credibility and trust, others seek to gain or defend a particular identity (relating to pride, reputation or esteem). Sweden, for example, already had a global identity and individual reputation as being the first country in the world to propose and host the first international conference on the human environment in 1972. Although, the role of status and esteem is considerably underplayed by Finnemore and Sikkink (1998). Nevertheless, defending one’s identity can further explain reasons behind norm adoption (but Sweden is certainly not considered a norm follower on matters concerning environmental protection). In addition to this, domestic legitimation becomes important, in that country leaders may take a specific action within the international community so to not lose support for and legitimation of their own government by their citizens

(Finnemore & Sikkink, 1998:902-903). This dynamic can also form part of the explanation for why South Africa transitioned from apartheid to democracy; intensified international economic sanctions imposed an increasingly heavier burden upon the country, undermining the legitimacy of the apartheid regime.

In line with these networks of socialisation presented above, including norms cascading by way of the Montreal Protocol (1987), additional treaties emerged attempting to redefine country identities and behaviour by endorsing the norms related to climate change in GHG. The Rio Earth Summit (1992), for example, resulted in the adoption of a Declaration that both re-affirmed and built upon the former Stockholm Declaration. As explained in Chapter 3, following the Brundtland Report (1987) in which the concept of "sustainable development" was first introduced and defined, the Rio Declaration brought the notion to centre stage. The Declaration stated that:

> Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature (UNCED, 1992).

The Declaration included 27 Principles on the rights and responsibilities of states to promote economic (sustainable) development, while ensuring the protection of the human environment. The Earth Summit (1992) was made up of delegates from 178 countries worldwide, of which over 150 member states ratified the Declaration. Along with the creation of the UNFCCC, the Summit further resulted in Agenda 21, which outlined various objectives and activities for member states in the promotion of *sustainable* development. Significant here, the CSD was established, introduced in Chapter 3 as being mandated by the Agenda (Clapp & Dauvergne, 2005). As the CSD was created with the purpose and responsibility to review and monitor the progress of countries; it is regarded an international organisation "monitoring compliance with international standards" (Finnemore & Sikkink, 1998:902).

The UNFCCC is another integral organisation, if not the most important, in both socialising state actors and legitimising policies relevant to climate change. Chapter 3 identified various developments towards setting up the COP1, as well as on those succeeding it (Table 3.3). The COPs negotiate standardising greenhouse gas emission targets for Parties (countries) to the Convention. The table below provides a closer look into the first few treaty developments from Table 3.3.

Table 6.2

Treaty Developments of the COPs (1995-2001)

Key COP	Key treaty developments

COP1: 1995	Adoption of the Berlin Mandate to emphasise setting emission targets for Parties to the Convention.
COP3: 1997	Adoption of the Kyoto Protocol outlining decisions from the BM: (i) Setting "quantitative emission targets" for industrialised countries; (ii) Implementing flexible mechanisms to help countries meet those targets; (iii) Allowing "emission trading" among countries
COP4: 1998	Adoption of the Buenos Aires Plan of Action (BAPA) to enforce the Kyoto Protocol.
COP6 (I): 2000	Parties unable to reach agreement on operational details behind implementing the BAPA.
COP6 (II): 2001	Adoption of the Bonn Agreements in place of the failure of COP6 (I)
COP7: 2001	Adoption of the Marrakesh Accords that: (1) Supplemented the Bonn Agreements; (2) Detailed the rules and guidelines of BAPA in a 200+ page document

Table 6.2: Treaty Developments of the COPs (1995-2001) (Adapted from: Depledge, 2005; Savaşan, 2019:213-214).

Following the adoption of the Kyoto Protocol by 84 Parties in 1997, the BAPA was adopted in 1998 as a means to advance implementation of and push for, through various plans of action, the adoption of the Kyoto Protocol. This programme of action was further conducted in COP5, with a deadline for agreements in COP6 (2000). However, Parties were unable to reach sound agreements on issues of the BAPA to the Kyoto Protocol by the time COP6 was underway. This failure to reach an agreement in COP6 can be understood following the behaviour by various countries in demonstrating, what Finnemore & Sikkink (1998:904) call, "cognitive dissonance." Cognitive dissonance can be defined as the state of having contradictory beliefs, values or interests than the cascading cognitive state (and norms) in the international system. As a noteworthy example, the USA stood almost alone in repudiating the Conventions and Plans behind the Kyoto Protocol at the turn of the century. This norm deviation was a product of the decisions made by President George W. Bush who, at the time, had just won the disputed 2000 elections and strongly believed that the high costs posed on their economy by the Protocol would not be in the USA's best interest (Depledge, 2005:25-26; Winchester, 2009:16). Vogler (2005:59) calls the USA's shifted stance towards the Protocol as "outright opposition," in that the country was merely protecting its own (capital) interests and not acting in accordance with the cascading norms pushed by the global community to combat the acceleration of climate change. Commitments of Parties, therefore, had become the most pressing challenge within climate change negotiations.

As Finnemore and Sikkink (1998:904) argue, cognitive dissonance may explain the motivation for norm-conforming behaviour of states primarily because states begin to recognise the "aversive consequences" of cognitive dissonance in the international system (e.g., loss of reputation, credibility or esteem). As such, despite the failure of COP6 to reach an agreement, the Parties to the Convention, nevertheless, agreed to meet again the following year in order to resolve their differences and adopt agreements relevant to the Kyoto Protocol. Actors who change their attitude or behaviour can also be understood as acting to gain or defend their pride or esteem relative to their peers (Finnemore & Sikkink, 1998:903-904). Through establishing various global institutional arrangements and structures, the succeeding Bonn Agreements, and the adoption of the Marrakesh Accords, demonstrated more cognitive and behavioural change as most Parties reached sound agreements on issues raised.

As indicated earlier, the IHRs demonstrate an important treaty behind the normative makeup of the WHO. The most recent IHR (2005) entered into force in 2007 in a total of 193 countries, with the exception of three, namely Liechtenstein, Montenegro and South Sudan, in which the IHR were adopted a few years later. Along with expanding global health determinants, by the 1990s the IHR entered into a period of critical revision (resulting in Draft IHR 1995 and 1998). The 1998 Draft included proposals that advocated the inclusion of environmental factors. Fidler states that the new IHR Draft contains:

> … a vision of integrated governance for global public health because proposals connect public health objectives with principles and norms found in international law on trade, human rights, *environmental protection* and security (Fidler, 2005:343).

Fidler (2005:345) goes on to say that in an initial attempt to abandon the limited number of specific infectious diseases the Provisional Draft (1998) replaced the notion of original diseases with *syndromes* subject to regulations; syndromes were more broadly defined as those notifiable syndromes (such as acute respiratory syndrome) "of international public health importance." Moreover, the WHO wanted to broaden the scope of surveillance information from only state actors to also non-state actors, including broadening the means to report information through various and new information technologies (such as the internet and mail) on notifying disease outbreak (Fidler, 2005). In addition, various regional and national environmental agencies, such as the US Environmental Protection Agency, were for the first time involved in the lengthy negotiation processes towards drafting the new IHR (Fisher, Kornblet & Katz, 2011:19). Although not directly referring to climate change, the Draft IHR (1998), along with the cascading of environmental norms indeed relevant to climate change (e.g., the Montreal Protocol (1987) and the Rio Declaration (1992)), considered for the first time those norms associated with the threat posed by the environment to human health.

Depledge (2005:21) therefore rightfully asserts that the start of the 1990s witnessed a series of negotiations "to provide foundation for a global climate regime."

Following the turn of the millennium, other pressures (beyond socialisation) had directed international attention towards climate change, particularly the threat posed by extreme weather conditions, such as Hurricane Katrina in 2005, and the 2003 European heatwave. The latter event saw number of deaths between 50-70 thousand people. These catastrophic natural disasters, occurring within the world-time context of growing environmental problems from human activity, can be explained as influencing the international system to search for new norms and ideas that correlate with the environmental context of the time (Finnemore and Sikkink, 1998:909). Moreover, the MDGs set out eight goals relative to socialising countries worldwide towards the emergent norm of sustainable development (Box 2.1). This treaty, agreed to by all the world's countries in the year 2000, demonstrated further country adherence to and institutionalisation of the targets to ensure environmental sustainability set out in the blueprinted MDGs.

After a ten-year revision process, particularly prompted by the deadly SARS outbreak in 2002-2003, an agreement was finally reached resulting in the most recent adoption of the IHR (2005). As discussed above and in Chapter 2, the new Regulations are considered far more inclusive than the original inquiry. The IHR (2005) now provide a multi-hazardous perspective on specifically public health emergencies, mainly through its introduction to the concept of *PEIC*, as well as more inclusive definitions of what constitutes a *disease, event* and a *public health risk* (see definitions in Box 6.1). According to Fidler (2005), the new IHR is built around these four concepts that collectively operate in a "concentrated circle" and allow for far more focused application of the Regulations themselves, including a broader

Key Definitions

"disease" means an illness or medical condition, irrespective of origin or source, that presents or could present significant harm to humans

"event" means a manifestation of disease or an occurrence that creates a potential for disease

"public health risk" means a likelihood of an event they may affect adversely the health of human populations, with an emphasis on one which may spread internationally or may present a serious and direct danger

"public health emergency of international concern" means an extraordinary event which is determined, as provided in these Regulations:

(i) to constitute a public health risk to other States through the international spread of disease; and

(ii) *t*o potentially require a coordinated international response

Box 6.1: Definitions from the IHR (2005) (Source: WHO, 2005:6-10)

framework, when a country is facing a public health emergency. For example, an event can refer to any occurrence that causes the (potential for) manifestation of disease, where disease refers to any human illness or condition regardless of its origin/source. In other words, disease in this sense could refer to a broad array of CDs and ECDs. The case of Mozambique, presented in Chapter 3, provides an interesting example in its experience of heavy flooding from excessive rainfall in 2019, sparking a public health emergency following the re-emergence and spread of water-borne disease, cholera, across the country. Responding to a public health emergency, the WHO's IHR (2005) provides detailed annexures on how countries should navigate their way through these definitions to decide whether or not the WHO should be notified and declare a PHEIC. In the case of Mozambique, the re-emergence of cholera was reported, however, the event was not declared a PHEIC.

Conclusion

By applying the second stage of Finnemore and Sikkink's (1998) norm life cycle model, this chapter has addressed another aspect of the research problem and answered parts of the research questions. It identified transnational networks, including international organisations, namely the IPCC, the WHO and the UNFCCC, as well as a norm entrepreneur, McMichael, as agents of socialisation in GHG. Despite conducting his work after norm entrepreneurs identified in Chapter 5, McMichael is another significant norm champion framing the links between climate change and human health from the 1990s and into the 21st century. By aligning with critical international organisations, namely the IPCC and the WHO, McMichael was able to directly frame the norms in response to climate change within these organisations' global health agendas. Kicking off the second stage of the norm life cycle, the Montreal Protocol (1987) was identified as an important treaty (and normative structure) that led to cascading norms relevant to phasing out ozone layer-depleting substances (e.g., CFCs). Interestingly, this protocol gained around 50 more countries by 1989 than the preceding Vienna Convention. Other international treaties emerged, namely the Rio Declaration (1992), the Kyoto Protocol (1997), the MDGs (2000) and the IHR (2005), all of which appeared to include the need for environmental protection. Despite the issue of cognitive dissonance, states evaluate themselves according to their 'peers' and are therefore more motivated to reach an agreement (and adopt new norms) as they defend or gain credibility, reputation or esteem. This reaffirms the constructivist pursuit in IR where identities and interests are shaped by mutually constituting social structures.

Most important to the research problem and question, the adoption of the IHR (2005) within a particular world-time context included a broader and inclusive framework and standard than those preceding it. Leading up to the adoption of the new IHR, the identified networks (norm

entrepreneurs and international organisations discussed in Chapter 5 and 6) are emphasised as socialising targeted actors (in this case, the WHO) to endorse and institutionalise cascading norms relevant to combating the threat posed by climate change. The IHR (2005) thus demonstrates further norm adherence in GHG, although climate change is not directly referred to or included. However, in order to move into the third stage of the norm life cycle, cascading norms need to become so widely accepted that they are not only internalised by state and non-state actors, but also take on a "taken-for-granted" quality (Finnemore & Sikkink, 1998:904). The following chapter continues the application of the norm life cycle from Chapters 5 and 6 by applying the final stage, namely norm internalisation.

Chapter 7
Norm internalisation or continued cascading in response to climate change in Global Health Governance?

Introduction

The previous two chapters applied the first and second stages of the norm life cycle: the emergence and cascading of norms in GHG; the aim of this chapter is to apply the final stage of norm internalisation to address the remaining aspects of the research problem and questions. In 2009, the Lancet Commission called climate change "the biggest public health threat of the 21st century." Norms in response to climate change were presented as indeed cascading by the turn of the 21st century, but it is important to explain at what point norms would internalise in GHG and the IHRs. The norm of limiting the emission of greenhouse gasses into the atmosphere was explained in Chapter 6 as cascading through the framework conventions of the international organisation of the UNFCCC. Most significant, the WHO's IHRs (2005) were further identified as adapting to the idea that there is a correlation between environmental hazards and the outbreak and spread of diseases, and they were accordingly amended to include a broader inquiry into any event resulting in the manifestation of disease regardless of origin or source. If the event which results in a public health risk meets the description of what constitutes a PHEIC (Box 6.1), the IHRs (2005) are activated, at which point the WHO should be notified.

This chapter presents Stage 3 of the norm life cycle by describing how norm internalisation is applied and explained. Chapters 5, 6 and 7 should be read together as accounts of the different facets of the same (constructivist) theoretical tool. Finnemore and Sikkink (1998:904) argue that the norm moves into the third stage of its life cycle at the extreme end of norm cascade. They further argue at this point that norm conformance becomes almost automatic, in that norm behaviour by state actors and non-state actors goes unquestioned. More normative change occurs as the conformity to the norm entails iterated and habitual behaviour (Finnemore & Sikkink, 1998:904-905).

Stage 3: norm internalisation

The purpose of this section is to apply the third stage of the norm life cycle to the research problem and question. Finnemore and Sikkink (1998:904-905) argue that, for a norm to become internalised in political reality, whereby norm conformance by state actors and socialising international organisations is automatic and occurs without question, various, usually powerful, mechanisms need to be carried out for the consolidation and universalisation of the norm. Explaining these mechanisms, they argue that procedural changes (laws),

professions and bureaucracy have an integral role to play in norm internalisation (Finnemore & Sikkink, 1998:905). This section therefore attempts to discern various international events, professional training mechanism, and globally agreed to treaties and cascading laws that have resulted in the deeper institutionalisation of norms in response to climate change in GHG and the IHRs. In doing so, it further attempts to discern whether cascading norms have moved towards internalisation in the political reality of GHG agendas in the 21st century.

Law, professions and bureaucracy

The further institutionalisation of international and domestic laws, emerging professions and bureaucracy have been highlighted as powerful mechanisms behind norm internalisation. Finnemore and Sikkink (1998:905) argue that more normative change and political convergence of habitual behaviour to norms can be explained by various procedural changes that create new political processes. For example, the cascading of the norm requiring the banning of CFCs in aerosol products was identified in Chapter 6 in its widespread adoption by member states of the Montreal Protocol (1987) under the UNEP. The Protocol (1987) laid out various procedural changes that had to be implemented by ratifying countries on phasing out ozone depleting substances. In achievement of this, professions often serve as persuasive tools behind norm internalisation, particularly because professional training can actively work to socialise others to value some things (the norms) over others (Finnemore & Sikkink, 1998:905). In this case, professional training provided by international organisations to help countries deal with and adapt their national health agendas to the climate change dilemma is considered. Lastly, Finnemore and Sikkink (1998:905) argue that (state) bureaucracies and the bureaucratic structure of international organisations have, indeed, become more professionalised, in that international and domestic policies increasingly incorporate their mainstream principles (of these organisations bureaucratic structure) which guide various integral decision-making processes and agencies.

Deeper institutionalisation

Beyond the socialising frameworks put forward by international organisations already presented in the previous two chapters, various other institutions, action plans and international treaties were established in the 21st century. This network of socialisation can be understood as working towards deepening the institutionalisation of the norms to combat climate change relevant to cascading norms in GHG and the IHRs. As presented earlier, Finnemore and Sikkink (1998:905) argue that global procedural changes, accompanied with greater professionalism and deeper institutionalisation, are powerful mechanisms for a norm to become internalised. As the norms to combat climate change were materialising and cascading in GHG

well into the 21st century, the WHO positioned health "at the heart of the climate change agenda" (WHO, 2008:22).

In 2008, the WHO released a global publication that warned of the risks of climate change to human health, indicating who is at greater risk and what needs to be done for more political convergence of countries to address the matter. Finnemore and Sikkink (1998:905-909) provide an interesting argument when explaining norm influence; they argue that not all norms reach a tipping point and cascade throughout countries in the international system, rather for norm cascade and norm internalisation to be achieved it is important to know "which norms matter" and "under what conditions." By directing the conversation of climate change towards *who* is at greater risk, the WHO raised aspects of what Finnemore and Sikkink (1998:907) refer to as "life worlds" that transcend various cultural and political contexts. They argue that norms invoking "bodily integrity" and the "prevention of bodily harm" for mainly vulnerable groups in society tend to matter more and, in essence, spark greater norm influence (Finnemore & Sikkink, 1998:907; Keck & Sinkink, 1998). This publication of the WHO (2008) identified the burden of climate-sensitive diseases and climate-related health risks as greatest for vulnerable regions, such as small island developing states, and certain population groups, such as women and children, who are more exposed to the threats posed by a changing climate. For example, populations residing within small island countries were identified as being more susceptible to death and injury in the event of a tropical storm (WHO, 2008).

Placing health at the heart of the climate change agenda, the 61st session of the WHA, attended by representatives from 190 countries, raised and discussed public health issues emerging from climate change along with the adoption of several resolutions. An example urged member states to "develop health measures and integrate them into plans for adaptation to climate change" (WHO, 2008:27). This inclusion was matched in the WHO's 2009 Action Plan, which laid out four integral objectives:

1. Awareness raising of the effects of climate change on health;
2. Engage in partnerships with other UN organisations and sectors other than the health sector at national, regional and international levels, in order to ensure that health protection and health promotion are central to climate change adaption and mitigation policies;
3. Promote and support the generation of scientific evidence to fill the gaps in our knowledge of climate-related health risks; and
4. Strengthen health systems to cope with the health threats posed by climate change, including emergencies to extreme weather events and sea-level rise (WHO, 2009:2-5).

With each objective, a plan of action was presented followed by methods of implementation. By invoking the protection of bodily harm for vulnerable population groups in 2008, the WHO might have seen greater norm conformance by countries, particularly by those which contribute substantial funding to the organisations' global health agenda and adaption mechanisms for lower income countries. However, as the third objective states, it had become clear that further scientific evidence was needed in order to enhance the characterisation of climate change in GHG. Both clarity and specificity, according to Finnemore and Sikkink (1998:906), are critical to determining norm influence, in which case the climate-health nexus was described by the WHO (2009) as needing more clarity and specificity for greater norm adoption.

Finnemore and Sikkink (1998:905) state that professions and professional training are influential mechanisms not only to transfer knowledge, but also to actively socialise the norm. In addition to its Action Plan (2009), the WHO developed a technical training course that same year designed to train public health professional on protecting human health from climate change. Most interesting, a training manual was designed to accompany a workshop for city health officials on the impact of a changing climate (referring mainly to extreme weather conditions such as heatwaves and floods) on health. The manual was based on a book presented earlier which norm entrepreneur McMichael co-authored, leading to the further cascading of climate change norms in GHG: *Climate Change and Human Health: Risks and Responses* (2003). In addition, responding to various demands of both member states and partners, the WHO developed a framework on how to systematically and effectively address the threats posed by climate change for health sectors and operational procedures to respond to them: *Operational Framework for Building Climate Resilient Health Systems* (2015). For least developing countries, these frameworks (among others not mentioned here) are complementary tools designed by the WHO for state actors to apply public health plans and resilience-building frameworks to better deal with climate change (Berry et al., 2018:4).

Bear in mind that Finnemore and Sikkink (1998:905) argue that institutions, which work to implement procedural changes by regulating standards of appropriate behaviour, are also influential for norm internalisation, particularly when contributing towards habitual behaviour. Following from the COPs discussed in Chapter 6, the UNFCCC witnessed greater institutional changes and norm adoption by counties in response to the threats posed by climate change. In particular, more normative change appeared to have stemmed from COP15-COP21. The key COPs presented below (Table 7.1) provide a closer look into Chapter 3's discussion in order to illustrate the various agreements and institutions more clearly.

Table 7.1

Treaty Developments of the COPs (2009-2015)

Key COPs	Key treaty developments
COP15: 2009	Adoption of the Copenhagen Accord; (i) To endorse continued commitment to the Kyoto Protocol; (ii) To set a global average temperature level increase to no more than 2 degrees Celsius above pre-industrial levels
COP16: 2010	Adoption of the Cancun Agreement to enhance action on adaption plans in developing countries
COP17: 2011	Adoption of the Durban Declaration on reaching a decision that a universal agreement on climate change would be adopted no later than 2015
COP18: 2012	Adoption of the Doha Amendment to make changes to and establish a second commitment period to the Kyoto Protocol
COP20: 2014	Adoption of the Lima Call for Climate Action that addressed key issues ahead of the set 2015 climate agreement
COP21: 2015	Adoption of the Paris Climate Agreement that set global average temperature levels

Table 7.1: Treaty Developments of the COPs (2009-2015) (Adapted from: Depledge, 2005; Savaşan, 2019:213-214).

The transitions between the adoption of the Copenhagen Accord (2009), the Cancun Agreement (2010) and the Durban Declaration (2011) saw more normative changes in countries on adapting national policies and plans to include the adverse effects of climate change, of which deteriorating health conditions are certainly no exception. The Copenhagen Accord (2009), for example, marks a significant step forward in negotiations for a global agreement that can limit and reduce greenhouse gas emissions, as well as support adaption for the most vulnerable. Partly because of growing international consensus that human activity accelerates climate change, the norm of phasing out substances that deplete the ozone layer (e.g., CFCs), accepting that it correlates with the acceleration of the threats posed by climate change, became universally consolidated under all 196 member states to the Vienna Convention for the Protection of the Ozone Layer, and its Montreal Protocol on Substances that Deplete the Ozone Layer, that same year as the agreed to Copenhagen Accord (2009).

Particularly due to the procedural and adaptive measures put forward in COP16, countries saw emerging organisations, alliances and initiatives that represent enhanced national adoption plans of countries to issues pertaining to health and climate – for example, the Global Climate and Health Alliance in Australia (2011), and the Health Initiative in South Africa (2014). The latter example provides a neat demonstration of a developing country implementing various

adoption plans stemming from the commitments of Parties to COP16. In this example, South Africa developed its first National Climate Change and Health Adaptation Plan (2014-2019).

COP17 was essential for the adoption of the Durban Declaration in 2011 that ultimately demonstrated widespread agreement towards reaching a resolution on an agreement towards combating climate change to be adopted no later than 2015. Moreover, the establishment of the Green Climate Fund was adopted by 194 member states as a financial mechanism to support developing countries to adapt to the changing climate context. Occurring parallel to *COP17,* also presented in Chapter 3, the first Global Climate and Health Summit was convened in Durban on 4 December 2011 and attended by over 30 country representatives worldwide. Among other NGOs, the UK's Climate and Health Council organised the Summit which called on COP17 negotiators of the UNFCCC to recognise the burden of disease and rising health care costs for developing countries, to acknowledge the health benefits of climate mitigation, and to ultimately make headway in reaching a final agreement under the UNFCCC's stagnated and longstanding negotiation process (Savaşan, 2019; WHO, 2018).

Following widespread consensus on the need to adopt a sound resolution for climate mitigation, on 11 December 2015 195 countries adopted the 25-page Paris Climate Agreement, which set out a range of provisional arrangements on issues pertaining to mainly global average temperature goals and levels of funding. As indicated in Chapter 3, the Paris Climate Agreement broke new ground for the UNFCCC as it had managed for the first time to set a collective goal among Parties to the Convention. The objectives were:

> (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change;
> (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
> (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (UN, 2015:3)

The adverse impacts of climate change were included, whereby health is one such known impact. Moreover, as also pointed out in Chapter 3, the SDGs replaced the MDGs in the 2030 Agenda for Sustainable Development the same year as the Paris Climate Agreement was adopted. Further discussed in Chapter 3, the SDGs, particularly SDG13, illustrate a universal agreement (and bureaucratic structure) towards combating the threats posed by climate change, mainly by taking various actions relevant to protecting public health. For example, Chapter 3

showed the WEF-nexus under the targets and indicators of SDG13 (Table 3.6). When referring to Table 3.6, other examples are clear, such as Target 13.1 "to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries" in order to, among other things, reduce the "number of deaths, missing persons and persons affected by disaster per 100,000 people" (Indicator 13.1.1) (UN, 2016). By providing a clearer bureaucratic structure for country responses to climate change, the SDGs increasingly reflects the normative biases of the professions (e.g., professional training agendas of the WHO) that staff its decision-making agencies. In effect, countries worldwide are able to redefine and change behaviour relevant to including climate action in their public health agendas (Finnemore & Sikkink, 1998:905; Katharine Pulvermacher, Interview, 29/09/2020; Roland Banya, Interview, 20/10/2020).

Finnemore and Sikkink (1998:904) argue that for a norm to achieve internalisation it needs to become unquestioned and even hard to discern. Despite these influential agendas, it is clear that neither of these things have happened to the norms in response to climate change. However, it can be said that the norms have indeed cascaded to a point whereby the third stage, namely norm internalisation, has begun, as exemplified in the WHO's professional training programmes and deeper institutionalisation. Finnemore and Sikkink (1998:904) go on to argue that precisely because emergent, cascading norms are not necessarily controversial, they are often not the "centrepiece" of global political debate, in which case they tend to be either ignored or put on the back burner by political scientists. As according to the WHO Action Plan (2009), the climate-health nexus needs greater support and a more consistent generation of scientific evidence to fill the knowledge gaps and promote more norm influence in GHG. As such, a number of cases are presented below in an attempt to discern whether or not state actors and international organisations are moving in the right direction for the achievement of norm internalisation.

Moving towards achieving norm internalisation?

During an in-depth discussion with a key informant (Tanya Brodie Rudolph, Interview, 12/10/2020), the Netherlands was discussed as a pioneering case behind internalising climate change in state agendas. In 2019 the country was, for the first time, required by its Supreme Court to cut down the level of greenhouse gas emissions from 1990 by 25% at the end of 2020. The Supreme Court approved of the agenda after the environmental civil society group, Urgenda, won its court victory against the Dutch government by collecting almost 900 co-plaintiff signatures. This decision by the Supreme Court could stand as a major influence for greater norm adoption by the wider public in the country for reducing the rate to which greenhouse gas emissions are being released into the atmosphere. The Netherlands is thus a

striking example of the general public moving swiftly towards norm internalisation by further conforming to regulated behaviour of the norms adopted in the Paris Climate Agreement (Tanya Brodie Rudolph, Interview, 12/10/2020).

In addition to the Netherlands case, Morocco has become known for establishing the largest clean energy facility in the world, in which a concentrated solar power plant is currently active over more than 6,000 hectares of land, and it is proposing that clean energy from the facility can eventually be traded to other states. This further coincides with the norms relevant to phasing out the greenhouse gas emissions of, for example, coal-powered energy plants, as well as with the WEF-nexus presented in SDG-13 above. Norm prominence, according to Finnemore and Sikkink (1998:906), is an important characteristic of norms that are likely to spread throughout the system, mainly because norms held by states that are viewed as more desirable and successful are more likely to diffuse. As the norm of clean energy is being viewed as successful (as in Morocco), other countries are viewing green energy agendas as more attainable and desirable, hence having the potential to influence more normative change and norm diffusion. China's announcement, in late 2020, that it would go completely carbon neutral by the year 2060 provides the most recent example of a state actor attempting to inform and redefine their identity and behaviour according to the norms (namely clean energy) in response to climate change (Interview, Tanya Brodie Rudolph, 12/10/2020).

Moreover, as support for a climate regime has attracted mass international and political attention, millennials have played an integral role in socialising the norms to address climate change in these global agendas. For example, the Fridays For Future movement emerged in Sweden in August 2018 after 15-year-old Greta Thunberg began skipping school every Friday in order to stage sit-ins outside of the Swedish Parliament protesting against the lack of effective climate legislation. The movement has since gained momentum as students across Europe and other parts of the world began to participate in this global climate strike. Thunberg has since appeared at various global conferences as a leading climate change activist, and established an NGO in 2019, the Greta Thunberg Foundation (Interview, Katharine Pulvermacher, 29/09/2020).

It has been pointed out by a key informant that "what drives a lot of the framing and influence of climate change is philanthropic organisations that, although they operate quietly behind the scenes, stand at the front of the show" (Interview, Tanya Brodie Rudolph, 12/10/2020). The Greta Thunberg Foundation has recently donated to charities that are working at the frontlines of the climate crisis across Africa, for example, to the International Red Cross and Red Crescent Movement established to protect human life and health, and ultimately alleviate human suffering. Moreover, Chapter 2 discussed the emergence of PH discussions in 2015 by the

philanthropic organisation, the Rockefeller Foundation, in cooperation with the Lancet Commission, as a means to safeguard human health in the Anthropocene. The urgent call to adopt PH, or rather PHG, was put forward to coincide with and further advance current global governance mechanisms towards a more consolidated and inclusive global strategy on how to protect and promote human health by diffusing environmental norms in GHG (Whitmee et al., 2015).

However, following from the discussion in the previous chapter on cognitive dissonance, the USA demonstrates a stark example of denying the need to respond to climate change in its decision to quit the Paris Climate Agreement in 2017. In addition, the Kyoto Protocol was never ratified by the USA, along with Afghanistan and Sudan, which meant that subsequent UNFCCC COPs experienced even greater repudiation by the country where any attempts to maintain global average temperature levels have been placed on the back burner. Under the Trump regime the USA appears to have ultimately neglected and reversed climate action in the 21st century. This behaviour is most interesting, given that some of the earliest commitments to environmental protection were shown by the USA in the latter half of the 20th century, as demonstrated in previous chapters. Furthermore, as a top voluntary contributor of financial aid, the USA has expressed its intention to withdraw from the WHO in 2020. As such, the USA can be classified to some extent as a "rogue state" within the international community, behind which "the unfortunate reality of country pledges is that they are driven by their own interests" (Finnemore & Sikkink, 1998:903-904); Interview, Katharine Pulvermacher, 29/09/2020).

An underlying cause of the lack of country commitments, noted by a key informant, is that "entities have no jurisdiction to create penalties for non-compliance" (Interview, Tanya Brodie Rudolph, 12/20/2020). It was further discussed by the key informant that the UN and relevant agencies have been working towards creating frameworks of international laws and principles dealing with both human rights and the environment (Interview, Tanya Brodie Rudolph, 12/20/2020). One of the key mandates behind the UNEP, for example, is to promote the development (refer again to Box 3.1 on global climate change initiatives and partnerships) and implementation (e.g., the Montreal Protocol on Substances that Deplete the Ozone Layer) of international environmental law, under which, however, a full realisation of laws and principles for the protection of the environment has not yet been achieved. This realisation is particularly paramount given that environmental pressures are growing vis-à-vis a fragmented global environmental protection framework. For example, the Amazon forest has been called the lungs of the planet, yet it remains one of the most widely exploited landscapes for the production of palm oil, among other things, and in which continued cultivation of land required deforestation as an unfortunate consequence. Ultimately, according to another key informant,

global action towards combating the health threats posed by climate change requires everyone to "pull their weight" insofar that "collective responsibility should be paramount" (Roland Banya, Interview, 20/10/2020).

It should be further noted that despite the original 1992 UNFCCC citing human health as a key driver for climate action, the intervening years has seen few to no citations relevant to health. Along with placing health on the back burner, the UNFCCC has hardly allocated any funding to health agendas. Health therefore remains a neglected topic in the climate menotiations mentioned above (Table 7.1). As such, the very ambiguity and complex nature behind formulating the climate-health nexus could in fact be another intrinsic characteristic impeding norm influence (Finnemore & Sikkink, 1998:906; Interview, Katharine Pulvermacher, 29/09/2020). It has also been argued that data are going through a revolution, in which "data on the state of the earth and on public health can have the potential to and should be readily accessible and available to everybody," insofar that existing research could enable an easier process of "jumping to the next step" for greater norm framing, adoption and influence (Interview, Tanya Brodie Rudolph, 12/10/2020).

Leading global actors in GHG, such as the WHO, are nevertheless still committed to socialising the norms in response to climate change impacts on human health. As demonstrated in Chapter 2, a recent draft report on 5 December 2018 saw the WHO's Director-General acknowledging the growing need for a "global strategy" for the global health community on how to respond to "environmental health risks and challenges until the year 2030": *Global strategy on health, environment and climate change.* Among its official statements, the report rightfully asserts:

> Current governance mechanisms, including those at the local level, are failing to effectively deal with the cross-cutting nature of environmental health issues. As policies continue to be set without recognition of the impacts that they can have on health and health systems (WHO, 2018:3).

This puts the challenge of linking the many sectors of global governance (GHG and GEG) to the global community. Further sensitisation workshops were designed by the WHO to help developing countries build their capacity to adapt to normative change. Most recently, in 2020 Nigeria's health minister and public health officers participated in a Training Working on Mitigation of and Adaptation to Climate Change and Greening of the Health Sector held in Abuja under the auspices of the WHO. The workshop not only helps Nigeria build more climate-resilient health systems, but also tracks national progress. The WHO is then understood as an integral international organisation "pressuring targeted actors" (namely developing countries) to adopt and institutionalise new policies, as well as "monitoring compliance" and

adaptation to the cascading norms relevant to health and climate change (Finnemore & Sikkink, 1998:902; Roland Banya, Interview, 20/10/2020).

As mentioned in Chapter 4 (see Figure 4.1), following various institutional arrangements and structures, significant cognitive and behavioural change tends to accompany the process towards norm institutionalisation, whereby almost automatic norm conformance and habitual behaviour are the overarching goals. Based on these domestic and global agendas, it would again appear that various states and international organisations are indeed, taking steps in the right direction that could potentially normalise climate strategies in GHG. However, based on the above application, it goes without saying that conforming to and habitual behaviour towards protecting global health from climate change have most certainly not yet been achieved. Reaffirming this point, a key informant stated that "climate change is yet to become normalised as a public health threat, particularly for most of the developing countries" (Roland Banya, Interview, 20/10/2020). Policymakers need to ultimately shift their health agendas towards adopting planetary health agendas, whereby the very rhetoric of climate change as the biggest global health threat of the 21st century can become internalised in everyday political reality.

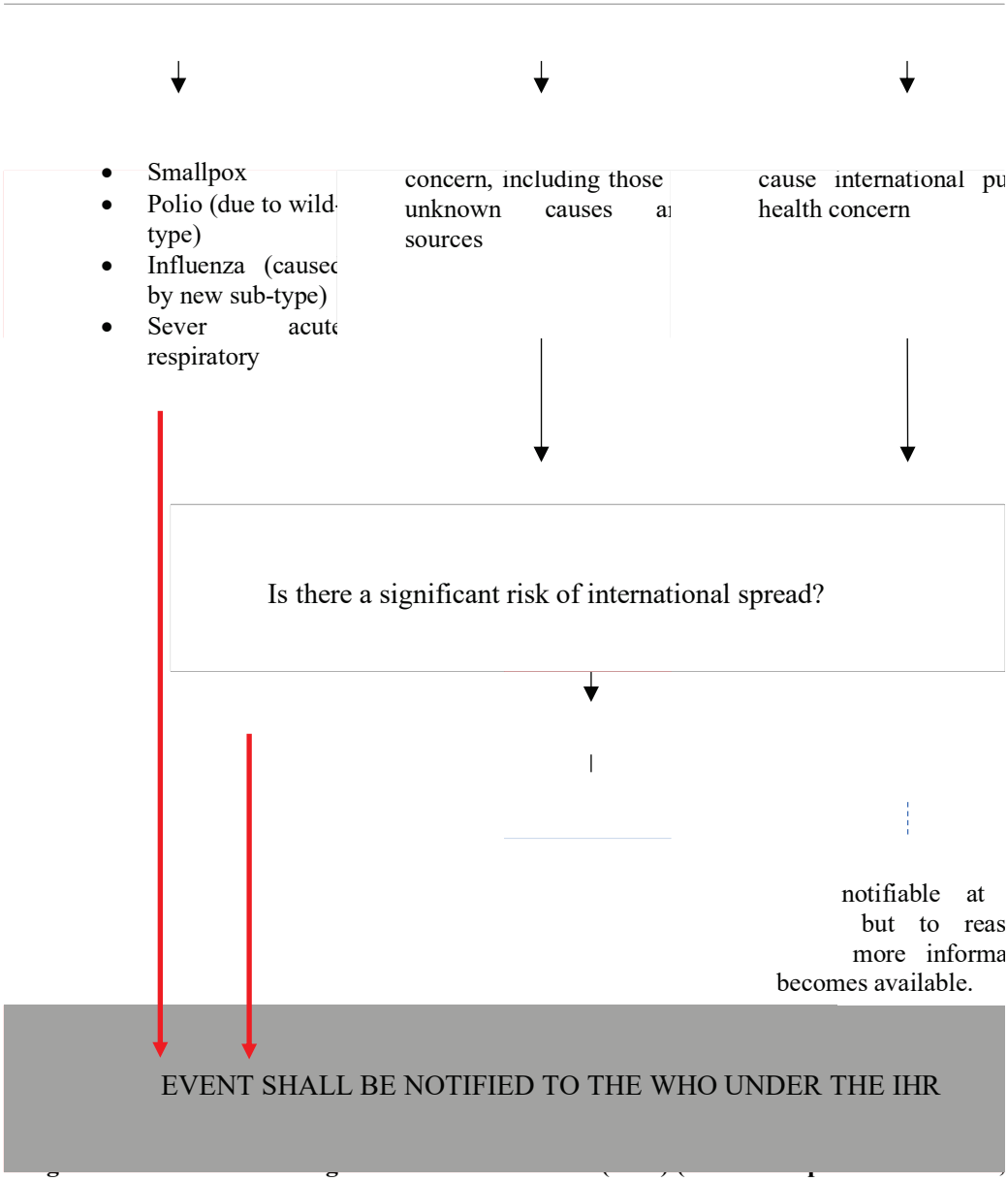
Restructuring the IHR

Important to the research problem and questions, the IHR (2005) could provide an interesting case for norm internalisation of climate change in GHG. Despite having a broader and more inclusive framework, it was found that the current Regulations do not necessarily frame specific norms in response to climate change within them. Finnemore & Sikkink (1998:905-906) state that norms need both clarity and specificity in order to "matter" under certain conditions. This could be applied to the case of the IHR (2005) requiring more normative framing if climate change is to fully emerge within its global health management agenda. At present, when countries are facing a public health event, various and stringent procedures are to be maintained. Figure 7.1 illustrates this detailed procedure that helps countries navigate between decisions as to when the WHO needs to be notified under the IHR when a country is facing a public health emergency. The IHR (2005) maintains countries are to navigate between four fundamental questions when attempting to discern whether or not the WHO is to be notified of such an event: as in Figure 7.1 below, "Is the public health impact of the event serious?"; "Is the event unusual or unexpected?"; "Is there a significant risk of international spread?"; and "Is there a significant risk of international travel or trade restrictions?" (WHO, 2005).

(See Figure 7.1 on the following page)

Figure 7.1

Decision-Making Instrument of the IHR (2005)



2016:43).

The IHR (2005) text provides guidance on how these questions ought to be navigated so to ensure this notification process remains as clear as possible (Box 7.1). In its implementation, the WHO has developed guidance mechanisms and toolkits to provide countries worldwide with the necessary professional training needed to implement the IHR (2005) accordingly. The IHR also requires countries to designate a National IHR Focal Point for communications with the WHO on public health emergencies, under which the WHO provides various professional training and capacity-building workshops to support implementation thereof (WHO, n.d.). As

Finnemore and Sikkink (1998:905) argue, professional training is a powerful mechanism used to advance norm internalisation. These mechanisms provided by the WHO enable greater country adaptation to the broader normative framework of the Regulations themselves, under which environmental disasters that (potentially) cause ECDs are also included.

Application of the Decision-Making Instrument

1. **Is the public health impact of the event serious? [If yes to any of the below questions then the event is serious]**
    a. Is the number of cases/deaths for this type of event large for the given place, time or population?
    b. Has the event the potential to have a high public health impact? For example, reported treatment failure, cases among health staff, or cases in high population density areas.
    c. Is external assistance needed to detect, investigate, response and control the current event, or prevent new cases? (usually due to inadequate human, financial, material or technical resources).
2. **Is the event unusual or unexpected? [If yes to any of the below questions then the event is unexpected]**
    a. Is the event unusual? For example, caused by an unknown agent or source or occurring within an unusual season or population.
    b. Is the event unexpected? For example, the event was not previously reported or has already been eradicated in the area.
3. **Is there a significant risk of international spread? [If yes to any of the below questions then the event has significant risk to spread internationally]**
    a. Is there evidence in previous heath studies that link to similar events occurring in other areas?
    b. Is there any factor of potential movement of the agent, vehicle or host crossing borders? For example, participation in international gatherings or international travel, potential environmental contamination or limited sanitary control.
4. **Is there a significant risk of international travel or trade restrictions? [If yes to any of the below questions then there is significant risk of restrictions]**
    a. Have similar events in the past resulted in these sort of restrictions?
    b. Is the source suspected or known to be a food product, water or any other goods that might be contaminated that have been exported/imported?
    c. Has the event occurred out of an international gathering or area of intense tourism?
    d. Has the event caused requests for more information by foreign officials or international media?

Box 7.1: Application of the Decision-Making Instrument for the IHRs (Source: WHO, 2005:44-46).

However, some scholars began to investigate the global stature of the WHO (see Lee & Pang's 2014 journal article, "WHO: retirement or reinvention?"), which could influence country conformance to their IHR (2005). It has also been argued by expert professionals, as presented in Chapter 2, that "Despite considerable progress, countries that are yet to implement the IHR (2005) core capacities may have insufficient human and financial resources to meet their obligations in the near future"; the authors of the systemic review go on to say that "Recent global epidemics have galvanised high-level political commitment towards ensuring global

health security" (Suthar et al., 2018:116). For example, the COVID-19 pandemic laid bare weaknesses of the IHR (2005), as its main objective to contain the spread of disease appeared to be unsuccessful. The pandemic has therefore demonstrated the need to re-evaluate the current global disease management toolkit in the face of a PHEIC (Wilson, Halabi & Gostin, 2020). Finnemore and Sikkink (1998:906) also argue that as legitimation is important for domestic receptiveness to international norms and a main motivation for normative shifts, periods of domestic turmoil (from, for example, COVID-19) might witness more international norms diffusing within integral health agendas such as the IHR (2005) (Interview, Tanya Brodie Rudolph, 12/10/2020).

Particularly because it was found that vulnerable population groups are at most risk and bear the heaviest burden when facing a natural disaster (WHO, 2008:19), building the necessary capacities for developing countries will, according to Fischer, Kornblet and Katz (2011:31), require critical coordination and integration of efforts among states. As resources are important to assist lower-income countries implement the IHR (2005), they go on to say that building country capacities will "require commitment from national leaders inside and beyond the health sector", including "consistent funding over the long term" (Fischer, Kornblet & Katz, 2011:31). However, as pointed out in Chapter 2, a primary weakness behind the IHR (2005) lies in its lack of a mechanism to compel country compliance. Fischer, Kornblet and Katz (2011:31) refer to this issue quite nicely by stating that "in the end, there is no enforcement mechanism if states take actions based on their own short-term interests rather than global public goods, or even their own long-term benefits."

From 2005 onwards only few revisions and amendments have been proposed to the Regulations, none of which addresses the adverse effects of climate change. Although there is talk of refurbishing the IHR (2005) following COVID-19, norms relevant to responding to climate change are yet to diffuse within its global health agenda (Interview, Katharine Pulvermacher, 29/09/2020). Among others presented earlier, Shea, Knowlton and Shaman (2018:200) called for a fully integrated climate-health governance in order to establish a more effective and secure framework that will ensure a sustainable and healthy future. There is even the question of whether the WHO should declare climate change a PHEIC, in which case, the current IHR (2005) would need further restructuring to accompany a disaster risk-management toolkit for the threat posed by climate change to human health. As expressed by a key informant, making climate change the centrepiece of global political debate by declaring it a PHEIC might provide "a way in which to bring climate conversations back onto the table" (Interview, Tanya Brodie Rudolph, 12/10/2020). Ultimately, the very bureaucracy guiding countries facing a PHEIC requires more procedural change if "gradual and inadvertent

ideational, normative and political convergence" relevant to the norms of climate change is to be realised across and within GHG as a whole (Finnemore & Sikkink, 1998:905).

Conclusion

By applying the third stage of Finnemore and Sikkink's (1998) norm life cycle model, namely norm internalisation, this chapter has addressed the final aspect of the research problem and research questions. The primary research question is as follows: *How are the norms developed to combat climate change discernible and manifesting in GHG, and specifically in the IHRs?* This study does not attempt to produce an all-inclusive account but rather highlights critical areas.

It first identified the deeper institutionalisation of norms in response to climate change in GHG by discussing various international organisational agendas. The WHO, for example, situated health at the heart of climate change discussions in 2009 and initiated various training programmes and capacity-building workshops to socialise countries worldwide on the need as well as the manner on how to adapt their public health agendas towards climate mitigation. As professions and professional training is regarded a powerful mechanism for norm internalisation (Finnemore & Sikkink, 1998:905), norms in response to climate change had indeed entered the third stage of the norm life cycle. Significant in answering the research questions, McMichael was identified as framing the climate change impact on human health for relevant international organisations, in this case, the WHO. Moreover, the UNFCCC was identified as providing a global institutional framework for the norm of limiting the rate at which greenhouse gasses are emitted by human activity into the atmosphere. However, unlike the SDGs, the UNFCCC appeared to have neglected the climate-health nexus in its minimal attention to the human health impact.

Second, this chapter attempted to identify greater norm diffusion in order to discern whether norms that address climate change would eventually achieve norm internalisation. As cognitive dissonance (demonstrated by the USA) is argued to motivate more norm conforming behaviour in the international system (Finnemore & Sikkink, 1998:904), norm advocates might witness greater norm conformance by countries attempting to avoid the consequences of loss of repuation, credibility and esteem. Countries such as the Netherlands, Sweden, Morocco and China, demonstrate areas where norms associated with combating climate change, for example, green energy, are becoming more widely adopted in the international system. In addition, philanthropic organisations were identified as powerful behind-the-scenes drivers of greater normative change, as exemplified by the Rockefeller Foundation in collaboration with the Lancet Commission on framing and calling for the adoption of PHG. As domestic legitimation

is critical for greater norm influence (Finnemore & Sikkink, 1998:906), in times of domestic turmoil (e.g., from COVID-19) countries might also be more receptive to normative changes and adoption. Although state and non-state actors are moving in the right direction, it was found that both clarity and specificity behind the climate-health nexus are crucial if GHG is to internalise norms in response to climate change entirely.

Lastly, the IHR (2005) was presented as providing a special case to discern norm adoption and internalisation in GHG. The normative framework behind the IHR (2005) is far broader and more inclusive as to what constitutes a public health emergency; which would certainly include disease outbreaks or public health emergencies caused by environmental disasters. However, climate change is not specifically referred to, nor is there clarity on how lower-income countries are to implement the IHR (2005) without the necessary funding. Moreover, due to the failure of IHR (2005) in preventing the international spread of COVID-19, in the light of growing environmental and health problems, it is clear that it needs further revamping.

For a norm to become internalised in GHG, it needs to become unquestioned and hard to discern (Finnemore & Sikkink, 1998:904). Despite the norm of phasing out substances that deplete the ozone layer becoming universally internalised under the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer, norms to address climate change in GHG require far more insistent framing and institutionalisation. It seems that norms associated with climate action have only just started entering the third stage of internalisation within the institutional frameworks, but have not yet achieved full integration and internalisation in GHG. This was found to especially be the case in most developing countries worldwide.

Chapter 8
Conclusion, summary and justification

Final note

Following the emergence of environmental concerns in the 1960s, climate change emerged decisively in international political debates by the final two decades of the 20th century. The progression of an understanding of climate change, however, relied heavily on the normative framing by expert professionals and international organisations to endorse the emergent dilemma, particularly for and within GHG. As GHG, first referred to as international health diplomacy, emerged long before global environmental agendas, its evolution into the 21st century witnessed far greater human health determinants in which the environment was certainly a contributing factor. Despite this inclusion, however, it was found that GHG requires an overhaul towards creating a more consolidated and inclusive global governance framework under which PH was an identified phenomenon needed for norms in response to climate change to diffuse within global health agendas entirely. The WHO's IHR (2005), among other global institutional frameworks, provided an interesting case for internalising norms in GHG. Discerning this diffusion and manifestation of the norms developed to combat climate change in GHG and its relevant counterparts, such as in the IHR (2005), therefore presented an interesting problem which this study attempted to explore. A constructivist perspective was utilised in order to discern and explain the manifestation and diffusion of norms in response to climate change in GHG and the IHRs.

Synopsis of study

Following the methodological outline in Chapter 1, which described the rationale and basic structure of this study, Chapter 2 addressed the history of global health concerns and the evolution of GHG. After defining key terminology, the difference between international health and global health was defined, which the discussion on the evolution of GHG confirmed. The 19th century witnessed pivotal moments that led to the emergence of international health diplomacy, namely the emergence and international spread of various CDs (cholera, the plague, and yellow fever) that resulted in the first International Sanitary Conference convened in Paris in 1851. After convening numerous further conferences to discuss country cooperation and coordination towards preventing the outbreak and spread of diseases, what was significant here was the emergence of the ISC in 1903, which consisted of conventions and regulations for countries when they were facing infectious disease outbreaks. The eventual adoption of the IHR in 1969 provided an integral normative framework whereby infectious diseases could be managed and controlled in GHG. As the history of IHRs was presented and explained amid the

evolution of GHG, the era of the MDGs and SDGs provided an interesting case for the inclusion of climate action in dealing with global health practices. In addition, key international organisations behind GHG, such as the WHO, were identified as positioning health at the heart of climate change discussions from 2009, and various professional training and adaptation mechanisms for countries' public health agendas on climate change emerged. Moreover, by situating health in security in IR as a field of study, the very fact of expanding global health determinants as posing a threat to both state and human security were explained with reference to the scholarly literature.

Chapter 3 discussed and explained the emergence and evolution of GEG as a separate, yet somewhat integrated, global governance field in the health sector. Key definitions by scholars of political ecology were presented that set the stage for the history to be presented under GEG. As the concept of political ecology developed to include the consequences of human-induced environmental degradation, it became undeniably a part of discussions on the human-health impact. The pivotal moment for the emergence of GEG was presented at the Stockholm Conference, convened by Sweden in 1972. Various expert individuals, such as Carson and Hardin, were identified as framing the environmental protection movement after presenting their analyses of environmental destruction caused by human activity. Moreover, both domestic and global pressures, amid growing environmental problems, led to the convening of the Stockholm Conference as awareness of the environmental dilemma began to grow significantly by the time of the conference itself. Most significant was the Stockholm Declaration (1972) adopted by 113 countries that recognised the principles relevant to other environmental damage, which included climate modification and protecting the environment from hazardous pollution for the sake of human health.

Following from the Stockholm Conference, GEG witnessed many other conferences such as the Rio Earth Summit in 1992 and beyond. By discussing the history of GEG, the emergence of climate change politics specifically was addressed, in which leading organisations, such as the IPCC and the UNFCCC, were presented and discussed as framing and socialising understandings of climate change worldwide. Scientists Rowland and Molina were identified here as identifying the rate at which human-produced substances, namely CFC's, were depleting the ozone layer. Their scientific paper published in 1974 led to greater international recognition of the fact of a depleting ozone layer from human activity impacting adversely on the planet and the humans who inhabit it. This was exemplified through countries, such as Sweden and the USA, who established national policies on cutting down the use of CFCs. Various international frameworks emerged as more decisive moments for the emergence of GCG, namely the Vienna Convention for the Protection of the Ozone Layer (1985) and the

Montreal Protocol on Substances that Deplete the Ozone Layer (1987), which found universal ratification in the 21st century. By discussing the evolution of GCG, other significant points were identified which demonstrated a convergence between the field of GHG and GEG. The climate-health nexus discussed significant aspects behind the incorporation of climate change in GHG. Key individuals such as McMichael as well as international organisations such as the WHO and the IPCC were able to endorse climate change in GHG. Moreover, various global events of diffusion were identified, such as in SDG13 to *take urgent action to combat climate change and its impacts,* in which health was certainly an emphasised factor. Finally, by situating the environment in IR, scholarly perspectives were presented that demonstrated how the environment is understood to correlate with human security, globalisation and transnational security.

Chapter 4 discussed the theory of constructivism that re-emerged towards the end of the Cold War in the late 1980s. As this perspective was often ignored by the dominant realist and liberal pursuits in IR, constructivism attracted scholarly attention as it set out to explain the behaviour of actors in the international arena. Herein, the importance of studying norms and normative issues were discussed as a central point for constructivist theorists and political scientists alike. As norms, institutions and institutionalisation were highlighted as key concepts guiding constructivist thought, the work of Finnemore and Sikkink (1998) provided an interesting perspective on how to discern norm internalisation through their norm life cycle model. Finnemore and Sikkink's (1998) norm life cycle was described as having three stages: norm emergence, norm cascade and norm internalisation. This description introduced this study's application in Chapters 5, 6 and 7 of the aspects of the norm life cycle illustrated in Chapter 4 to be applied in this research as follows:

The Norm Life Cycle

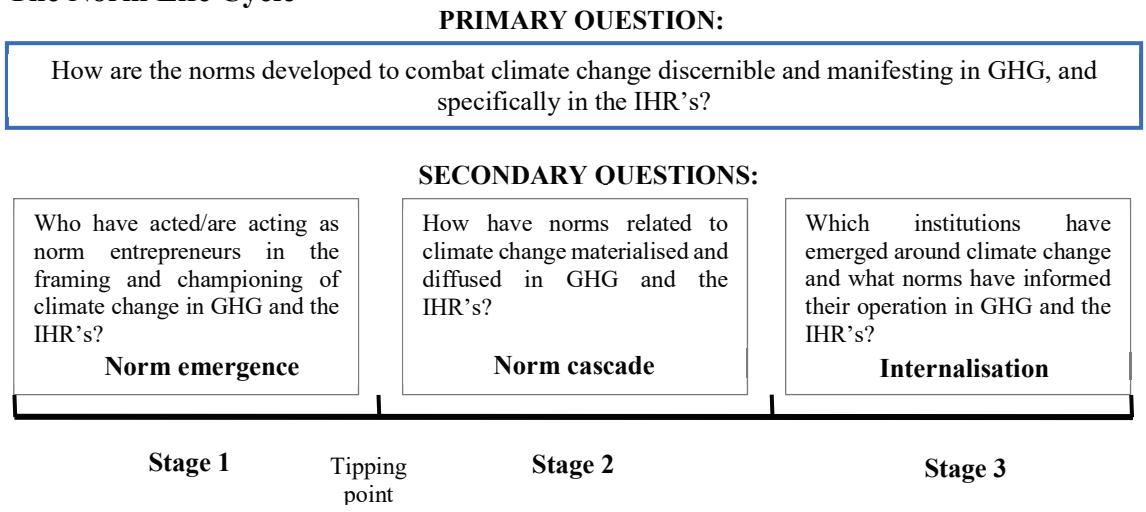


Figure 4.3: The Norm Life Cycle Application (Adapted from: Finnemore & Sikkink, 1998:896).

Chapter 5 applied the first stage of the norm life cycle: norm emergence. As Finnemore and Sikkink (1998:897) argue, norm entrepreneurs are instrumental in championing new norms. The norm entrepreneurs Carson and Hardin were identified by way of their analyses in the 1960s as framing environmental problems from human activity that pose human health threats. As no norm entrepreneurs can on their own persuade states to adopt new norms (Finnemore & Sikkink, 1998:899), various organisational platforms and agendas were identified as emerging from Carson's and Hardin's framing, namely Sweden's Environmental Protection Act in 1967, the establishment of the USA's EPA in 1970, and the first international Earth Day that same year. Most significant, norm entrepreneurs Rowland and Molina were identified as critical to championing the emergent norm of reducing the rate at which CFCs are emitted into the atmosphere. From this framing, various national policies took shape in countries that banned the use of CFCs in aerosol products. As the tipping point between norm emergence and norm cascade, both the Stockholm Conference (1972) and the Vienna Convention (1985) were described, the latter of which was identified as constituting the more definitive tipping point right before the norms to combat climate change started to cascade in GHG.

The study then applied the second stage of the norm life cycle – norm cascade – in Chapter 6. Finnemore and Sikkink (1998:902-903) argue that as norms cascade, states, international organisations and networks play instrumental roles as socialising agents towards greater institutionalisation of the norms. This chapter identified networks of socialisation in the 1990s behind the incorporation of climate change in GHG, namely the IPCC, the WHO, and the UNFCCC. The latter was established specifically to phase out and limit human production and consumption of greenhouse gasses worldwide. This chapter further identified another critical norm entrepreneur behind the framing and championing of climate change, McMichael, who collaborated with international organisations, namely the IPCC and the WHO, to frame less ambiguous interpretations of the impact of climate change on human health. Integral reports by these international organisations were identified as further socialising climate change in GHG. In addition, beyond the tipping points discussed in the previous chapter, more institutionalisation occurred into the final two decades of the 20th century (e.g., the Montreal Protocol Layer (1987), the Rio Earth Summit (1992), the UNFCCC's yearly COPs, and the MDGs (2000)). The dominant mechanism of peer pressure was described as leading to more norm adherence and adoption by countries in the international system. By the 21st century, the IHRs had been revamped amid the changing global landscape, to which the IHR (2005) were augmented to include a broader framework and inquiry as to what constitutes a PHEIC.

Chapter 7 commenced with the final application of the norm life cycle, namely norm internalisation. Deeper institutionalisation was identified by way of various international

treaties and professional training programmes. The WHO placed health at the heart of climate change discussions in 2009, in that it established various professional training mechanisms to assist countries in adapting their national health agendas to include aspects of climate change. In addition, the Vienna Convention for the Protection of the Ozone Layer, and Montreal Protocol on Substances that Deplete the Ozone Layer, found universal ratification according to which all countries of the world adopted the norm of reducing the rate at which substances that deplete the ozone layer are emitted. Furthermore, various cases were presented that illustrated movements in the right direction towards norm internalisation. The Netherlands, Sweden, China and Morocco, for example, were identified as significant cases where norm internalisation might be achieved. Following this, the bureaucratic structure behind the SDGs provided significant guidelines for climate change to become internalise within national health policies and agendas worldwide.

However, various and many countries are yet to adopt climate action in their health agendas, some of which are even reversing the much-needed realisation and internalisation of norms to combat climate change in GHG. The UNFCCC's COPs were described as neglecting the topic of health in the 21st century. This neglect, however, reaffirmed the need for greater evidence and framing if climate change is to become socialised and internalised in GHG as a whole. Significant for this study, the IHR (2005) was discussed in relation to climate change, and it was found that greater restructuring of the current IHR framework is required if norms in response to climate change are to fully emerge within its global health agenda. Nevertheless, as the IHR (2005) entails a more inclusive inquiry into what constitutes a disease, an event and a public health emergency, a changing climate that causes the emergence and spread of disease is in fact relevant. The norm life cycle was able to explain the emergence and diffusion of norms developed to combat climate change in GHG and the IHRs, however, despite considerable progress it was found that the norms are yet to pass fully into the third stage and become fully internalised as unquestioned and hard to discern.

Solving the research problem

This study aimed to identify, describe and explain the emergence and diffusion of the norms to combat climate change in GHG and the IHRs by utilising a constructivist perspective in IR. The utility of this perspective allowed the study to specifically address norm dynamics and normative change in the international system. Amid growing environmental problems, Sweden became the first country in the world to institutionalise environmental protection in their national policy agendas. Following the Stockholm Conference on the Human Environment in 1972, the international community acknowledged the need to protect and promote the natural environment for the sake of human health, and there was a growing international consensus on

the impact of climate change in the following years. With emerging climate-health linkages, there are serious implications for the global health community and their collective response to the threat posed by climate change. Finnemore and Sikkink's (1998) norm life cycle model was applied to the study by examining the norms developed to combat climate change in GHG in three stages: norm emergence, norm cascade, and norm internalisation. This specific constructivist perspective and model were used because they have become influential in demonstrating the operation of norms in the international system. The model proved particularly useful in its ability to explain the life cycle of norms to combat climate change in GHG by way of the WHO's IHR (2005).

On norm emergence, the study identified key actors who framed and championed the norms relevant to combatting climate change, whereby a critical mass of states was persuaded to adopt the new norms. The normative framing by various individuals and international organisations allowed the norm to cascade through the international system and in GHG, where the linkages between climate and health were being acknowledged. The cascading process revealed more institutionalisation of the norms relevant to climate change – extending to the less ambiguous framing of the climate-health nexus in seminal global reports, as well as the restructured IHR (2005) which included a far broader framework and inquiry into what constitutes a PHEIC. On norm internalisation, the norm life cycle showed that norms of climate change, such as phasing out harmful substances that deplete the ozone layer, found universal adherence in the 21st century through the Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer. In addition, various first-world countries and professional training programmes provided by the WHO demonstrated movement towards norm internalisation. However, despite the norms entering the third stage of the life cycle model, norms to combat climate change have not yet been fully internalised in GHG and the IHRs. The gap between international institutional frameworks, and policymakers and societal perceptions is still prominent, particularly among and between developed and developing countries. Norm resistance by some could motivate greater norm adoption by others, although the norm life cycle does not provide further clarity on the behaviour of norm resisters in the international system. Nevertheless, norms developed in response to climate change are indeed moving towards internalisation, but greater evidence, *framing*, socialisation and restructuring of institutional frameworks are required if it is to reach a *taken-for-granted* perspective in GHG as a whole.

Answering the research questions

This study's primary research question is as follows: How are the norms developed in response to climate change discernible and manifesting in GHG, and specifically the IHRs?

The emergence and diffusion of climate change as an important issue in the global community was the consequence of various networks of persuasion and socialisation. Firstly, amid growing environmental problems, the work by various expert professionals and leading international organisations led to the emergence of climate change in mainstream global conversations. Secondly, greater normative framing in GHG occurred through integral networks of organisations that adopted a specific identity relevant to climate change mitigation for the protection of human health, whereby a growing consensus and institutionalisation in the international system could transpire. Thirdly, climate change came to represent its own form of politics, in that both international and national action plans utilised policies and the law to advance claims on environmental protection and combatting climate change for the benefit of public health. Fourthly, the WHO's IHR (2005) were revamped in the midst of this growing international consensus about the link between climate change and advancing environmental (and health) problems, insofar that its institutional framework included a broader framework and inquiry into what constitutes an event, a disease, a public health emergency, and a PHEIC. Lastly, climate change has come to represent the normative idea that a nation state is sustainable, desirable and forward thinking in managing public health threats, although this particular threat requires greater normative framing, socialisation and institutionalisation for the norm to fully emerge in GHG.

The secondary research questions were addressed as follows:

1. Who have acted as norm entrepreneurs in the framing and championing of climate change in GHG and the IHRs?

   This study has identified the following norm entrepreneurs who have framed and championed climate change in GHG by way of their seminal analyses that entered the international arena: Rachel Carson (1962), Garret Hardin (1986), Sherwoord Rowland and Mario J. Molina (1974), and Anthony J. McMichael (1993-beyond).

2. How have norms related to climate change materialised and diffused in GHG and the IHRs?

   The successful materialisation and diffusion of norms related to climate change in GHG and the IHRs, as illustrated in Chapters 5, 6 and 7, is largely attributed to the persuasion and process of socialisation by norm entrepreneurs and network of organisations (namely the IPCC, the WHO and the UNFCCC) in framing climate change as a fundamental threat to human health that requires immediate international attention and coordinated action. Along with growing environmental problems, states that have accepted the norm by ratifying various global treaties have done so in response to

sometimes implicit "peer pressure" in the international system, either to gain, defend or maintain a particular identity relevant to their state peers. In addition, while some states exemplify successful cases in their response to human-induced climate change, others are still refraining from or unable to adopt the norms, in that norm adoption has become a crucial and desirable outcome in various socialising agendas and professional training mechanism of international organisations behind GHG.

The IHR (2005) presented an interesting case in which its global health agenda was restructured to include a broader framework and structure relevant to addressing many existing CDs and ECDs. Mainly because the norms to combat climate change began to be socialised to include specific cultural and political contexts, greater norm adoption and influence tends to result, as vulnerable population groups were identified as suffering the highest risks from the climate change impact. As illustrated in Chapter 7, the norms have not yet managed to materialise and diffuse (in full) in GHG and the IHRs. However, due to deeper institutionalisation in the international system and advancing efforts by international organisations that work to continuously frame, socialise and teach climate change in global health agendas, the norms to combat climate change are moving in the right direction towards full internalisation. This was illustrated through application of the final stage of the norm life cycle model in Chapter 7.

3. Which institutions have emerged around climate change and what norms have informed their operation in GHG and the IHRs?

   As Chapter 3 first made clear, climate change issues had entered a period of stagnation in the global community in the 21st century. However, various domestic actors and international organisations continue to promote the human health impact of climate change within various institutional frameworks. Prior to the 21st century, the Vienna Convention (1985), followed by its Montreal Protocol (1987), worked to institutionalise the norm of phasing out harmful human-produced substances (such as CFCs) worldwide that deplete the ozone layer. In addition, the IPCC was established by the UNEP and WMO in 1988, all of whom operate towards socialising the norms relevant to environmental protection. The IPCC was established with the specific intention of providing expert and scientific information on climate change, its impacts and country adaptation strategies. In the case of the IPCC, its Assessment Reports have appeared to always include the human health impact in its normative framing of the need to address climate change. In addition, the UNFCCC was established in 1994 with the specific objective of stabilising greenhouse gas emissions in order to prevent global warming,

and hence convened institutional frameworks to be adopted in their yearly COPs. The Paris Climate Agreement, for example, is the most recently adopted institutional framework that seeks to maintain the norm of global average temperature increases to below 2 degrees Celsius above pre-industrial levels.

Most significant, the WHO emerged with the overarching purpose to protect and promote health worldwide, and climate change entered its global political operations as early as 1990 when it started emphasising the consequences to human health. In the midst of the growing international consensus in the 1990s, the WHO's IHRs were revamped and officially adopted in 2005 with a more inclusive framework for countries facing a PHEIC. In addition, climate change was positioned at the centrepiece of health discussions by the WHO in 2009, in that the subsequent agendas worked to institutionalise climate mitigation and adoption mechanisms in countries worldwide. Moreover, philanthropic institutions, such as the Rockefeller Foundation and the Greta Thunberg Foundation, have framed climate change impacts and suggested action plans within their agendas, with the Greta Thunberg Foundation established specifically to address the climate change dilemma. The Lancet Commission, in particular, framed climate change as the greatest public health threat of the 21st century, and, in collaboration with the Rockefeller Foundation, called to adopt the norm of PH to better consolidate climate action in GHG. As stated in chapter 6, the UN informs most of the above-mentioned operations, as the ultimate custodian behind climate change adoption and mitigation frameworks across and within GHG and the IHRs. For example, the SDGs were established to endorse the norm of sustainable development, wherein SDG13 particularly endorses climate action in countries' national health agendas.

Areas for future research

As it is clear that research on norms and normative change has become the dominant focus in most constructivist pursuits in IR, it would be interesting to delve deeper into the role played by norm resisters or even norm evaders in the international system. Finnemore and Sikkink's (1998) norm life cycle model is one such example where constructivist pursuits have fallen short in explaining norm resistance, but would it be possible to build upon the norm life cycle in order to explain contesting norms? The USA, as explained earlier, has opposed norm conforming behaviour to climate change. By examining the behaviour of anti-norm actors through a theoretical framework could explain the emergence and diffusion of norm polarisation and its correlation with norms that have not been internalised. A good place to start might be by redefining the norm life cycle as an anti-norm life cycle model to explain the dynamics of norm resistance.

Norm research by constructivists has made a tremendous contribution to understanding norm change, wherein they have explained the integral role played by international organisations in pushing the adoption of new norms. As the UN has been described as the custodian of international norms, it would be interesting to conduct further research on the role played by status and norms, particularly given the dominant role of the UN in influencing largescale norm adoption. But, in the event of reputational loss, for example, of the WHO and the failure of its IHR (2005) to stop the spread of COVID-19, it would also be interesting to look into how lost reputation and credibility might influence resistance to norm-conforming behaviour pushed by these organisations. In addition, the UNFCCC has played a leading role influencing the norm of stabilising greenhouse gasses worldwide; however, further research could be conducted on the influence of this organisation as a whole on norm internalisation. As such, how much normative change has been as a result of the UNFCCC's treaty arrangements and agreements? One could take this a step further and ask whose norms matter, and at what point should global norms (presented by norm entrepreneurs as 'good') be localised at the expense of traditional norms (presented by norm entrepreneurs as 'bad').

Further research on the norm life cycle could also be conducted by including alternative motivations behind country convergence on norm adherence and adoption. In this case, it would be interesting to examine motivations beyond peer pressure and socialisation to adopt new norms in the international system, and study the extent to which other factors, such as domestic turmoil and empathy, play as dominant mechanisms behind norm adoption by states. Stemming from this discussion, perhaps further research could also be conducted on the extent to which the behaviour of least developed states who adopt new norms can provide further explanations of norm adoption and influence. In addition, one might ask the difference between developing and developed countries when facing the adoption of new norms.

Finally, further research on PH (and its potential, PHG) is essential. As a relatively new topic, it is important to frame a less ambiguous understanding of what it would mean to shift GHG towards PHG. This study, therefore, calls upon interested individuals and researchers to develop a more substantial understanding of PHG that could potentially spark a global movement and shift from GHG as it is today. Perhaps the overarching goal behind this research could be to understand the possibility of total reconstruction, whereby the two sectors of GHG and GEG merge into one admirable field of governance that protects and promotes both human health and the natural world simultaneously.

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