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International Human Rights Law and Climate Change:
The Case for a Duty to Mitigate Climate Change

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I. Taking responsibility, demanding responsibility: human rights in climate change litigation

‘Since our leaders are behaving like children, we will have to take the responsibility they should have taken long ago’ – although harsh and polemic, many people would agree with the words Greta Thunberg said at the 24th Convention of Parties to the United Nations Framework Convention on Climate Change (‘UNFCCC’)¹ in Poland on 4 December 2018.² Almost 30 years after the signing of the UNFCCC in 1992, the current measures do not even come close to the efforts necessary to keep global warming below 2°, let alone 1,5° Celsius and to prevent catastrophic climate change.³

It is thus no surprise that many people feel they cannot wait for political leaders and instead want to ‘take responsibility’ and try to force more decisive action against climate change. To this end, activists employ virtually all available measures of mobilisation: From surging support for ‘green’ parties, to mass demonstrations, to creative forms of protest like flash mobs, to lobbying and – of course – litigation. With important parts of international climate change law being non-binding or too unambitious in nature, the only regime that might oblige governments all over the world appears to be international human rights law.⁴ This has led some scholars to speak of a potential ‘rights turn in climate change litigation’.⁵ Nonetheless, challenges and impediments remain and the potential of human rights to limit climate change has not yet been fully employed.

The purpose of this thesis is to map the current relation between international human rights law and climate change more clearly to clarify its potential in the fight against climate change. To this end, the focus will be on the following question: Does international human rights law impose on states a concrete and enforceable duty to mitigate climate change by reducing emissions?

¹ Entry into force 21 March 1994, currently 197 ratifications (all information on international treaties is according to the website of the United Nations Treaty Collection, available at https://treaties.un.org/Pages/ParticipationStatus.aspx?clang=_en, accessed 4 October 2020).

² Available at <https://www.bbc.co.uk/newsround/49812183> (accessed 6 July 2020).

³ See for example J Knox ‘Bringing Human Rights to Bear on Climate Change’ (2019) 9 *Climate Law* at 178.

⁴ L Collins ‘Are we there yet? The Right to Environment in International and European law (2007) 3 *McGill International Journal of Sustainable Development Law and Policy* at 125; The World Bank *Human Rights and Climate Change* (2011) at 8.

⁵ J Peel & H Osofsky ‘A Rights Turn in Climate Change Litigation?’ (2018) 7 *Transnational Environmental Law* at 37.

In order to answer this question, it will in a first step be necessary to define the framework of the present dissertation, namely the central terms ‘climate change’ and ‘international human rights law’ as well as their relation. The third section will then enlarge upon this relation by describing the factual impacts that climate change has on the full enjoyment of human rights as acknowledged in human rights law. Following this, the fourth section will discuss the central question: if the described factual impacts lead to actual legal obligations on states and which these are. The discussion will try to anchor a possible duty to mitigate firmly within the prevalent human rights legal system. Problematic issues, namely of causation and limitations due to separation of power shall be examined as well as possible arguments to overcome these issues. To this end, the dissertation will develop as a central argument that human rights law not only requires states to not cause harm but also to avoid causing the *risk* of harm as far as reasonable. Thereby, it is possible to overcome the problem of specific causation between a particular human rights impact and a particular state’s emission. The fifth section will then examine to what extent this obligation can be applied on a global scale in order to promote more climate justice, despite the traditional territorial limitation of human rights. Finally, some concluding remarks will briefly sum up the key results with regards to the potential for a human rights duty to mitigate.

II. Framework: Climate change and human rights law

Both of the central terms of this paper describe complex, multi-layered matters: While ‘climate change’ encompasses several global causes and effects, ‘human rights law’ addresses a multitude of instruments, actors and legal and sometimes philosophical concepts. The following explanations shall help establish the framework of the paper by defining the central topics more clearly.

1. Climate change

Article 1(2) UNFCCC defines ‘climate change’ as follows:

‘Climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.’

As a political and legal, rather than a scientific document, the UNFCCC does not dwell on an in-depth explanation of the physical processes behind climate change. Critical readers might even take exception to a text which defines climate change as ‘a change of climate’. The only hint to the physical processes is that it occurs through an alteration of the ‘composition of the global atmosphere’. The real value of Art. 1(2) UNFCCC is that it puts the focus on who is responsible for the entire development: human beings. Other than the common language, the UNFCCC disregards natural changes in the climate and understands as climate change only processes which can be ‘attributed directly or indirectly to human activity’.

Nonetheless, it is reasonable to first revisit the scientific side of climate change, the way it is summarized in the reports of the International Panel on Climate Change (‘IPCC’). Article 1(2) UNFCCC refers to the process of climate change by mentioning an alteration of the ‘composition of the global atmosphere’. This alteration occurs through the emission⁶ of greenhouse gases (‘GHG’) which are defined as ‘gaseous constituents of the atmosphere, both natural and anthropogenic that absorb and re-emit infrared radiation’, Art. 1(5) UNFCCC. The effect of these GHG is that energy of radiation which would otherwise have dissipated into space now stays in the atmosphere in form of heat energy.⁷ While climate change is more complex than just this warming process, it is the fundamental, underlying cause of virtually all other changes. Global warming can therefore often be used in a synonymous sense to climate change.

Since the industrialization in the 18th century, human beings have emitted enormous quantities of GHG, especially carbon dioxide (‘CO₂’), methane (‘CH₄’) and nitrous oxide (‘N₂O’).⁸ This human activity ‘has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years.’⁹ In conformity with the greenhouse effect, this rising concentration of greenhouse gases was accompanied by an increase in temperature. It is estimated that the average surface temperature already has increased by circa 0,5°C since 1951.¹⁰ And: ‘It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century.’¹¹

⁶ Article 1(4) UNFCCC.

⁷ This basic process was already explained in the First Assessment Report of the IPCC *First Assessment Report and 1992 Supplement* (1992) at 8-9.

⁸ IPCC *Climate Change 2014: Synthesis Report* at 3 Figure SPM.1.

⁹ *Ibid* at 4.

¹⁰ *Ibid* at 6.

¹¹ IPCC, *Climate Change 2013: Contribution of Working Group I to the Fifth Assessment Report* at 17.

In a sensitive, interlinked system like the climate,¹² such a rise in temperature has a vast multitude of consequences on both natural and human systems. Already today, there is notable certainty among scientists that climate change has led to, for example, more heat waves, more frequent and intense heavy precipitation events and, at the same time, more frequent and intense droughts.¹³ These changes are predicted with high certainty to become even more pronounced in the future.¹⁴ Under a scenario without additional efforts to limit emissions, the IPCC predicts an average rise between 2.2. and 3.7°C and a global mean sea level rise between 0.48 to 0.63m in relation to the period 1986-2005 until the year 2100.¹⁵

To avoid this scenario statesmen and -women around the world must take decisive action regarding mitigation which the Office of the United Nations High Commissioner for Human Rights ('OHCHR') has defined as follows:

*'Mitigation aims to minimize the extent of global warming by reducing emission levels and stabilizing greenhouse gas concentrations in the atmosphere'*¹⁶

It is the question of this paper if they can be compelled to do so by using the law, more specifically: human rights law.

2. International Human rights law

The term 'international human rights law', however, also requires some clarification. To start, the word 'international' shall signify that the focus of this paper are international and regional human rights treaties. Human rights provisions in national constitutions can only play an incidental role. This is because the main interest is to find arguments and strategies which ideally can work all over the world, not just in a particular country. In this context, most jurisdictions follow the guidelines of international human rights law or apply them directly. Nonetheless, domestic laws and especially case law can in certain circumstances provide useful judicial arguments that may apply equally to international human rights guarantees.

¹² See Art. 1(3) UNFCCC.

¹³ IPCC op cit note 11 at 7, Table SPM.1.

¹⁴ Ibid.

¹⁵ IPCC op cit note 8 at 60, Table 2.1.

¹⁶ OHCHR *Report on the Relationship between Climate Change and Human Rights* (2009) = UN Doc A/HRC/10/61 para 12; strictly speaking mitigation can also be achieved by the enhancement of sinks in the meaning of Art. 2(8) UNFCCC.

a) Foundations: International instruments

Even within the *international* human rights law, however, one cannot rely on a single, unitary source. Notwithstanding the character of human rights as universal and indivisible,¹⁷ their legal implementation can be described as ‘fragmented; there is no such thing as a standard human rights catalogue or a global human rights monitoring body.’¹⁸ The closest to a ‘single human rights catalogue’ is the so called International Bill of Rights,¹⁹ which consists of the guarantees contained in the 1948 Universal Declaration of Human Rights (‘UDHR’)²⁰, the 1966 International Covenant on Political and Civil Rights (‘ICCPR’)²¹ and the 1966 International Covenant on Economic, Social and Cultural Rights (‘ICESCR’).²² This trio can be seen as fundamental to international human rights law because of its virtually universal application in all countries in the world: While originally a non-binding resolution of the General Assembly (‘GA’), many – according to some scholars all – rights of the UDHR are now considered binding customary law.²³ The two covenants, on the other hand, are binding international treaties which have been ratified by 173 (ICCPR) and 171 (ICESCR) states respectively, out of 195 states.²⁴ Even though the rights in the ICESCR are subject to the ‘progressive realization’ limitation in Art. 2(1) ICESCR, they are justiciable if the state does indeed have the required resources and simply did not accord the rights appropriate priority. Next to the ICCPR and ICESCR, there are several other international human rights treaties which guarantee rights in relation to specific issues or for specific groups of people. In comparison to the rights enshrined in the UDHR and the two Covenants, these treaties are less comprehensive as they apply only to certain issues or people.

An important aspect to keep in mind is the degree of enforceability of human rights instruments. Although most of the international treaties are now supplemented by quasi-judicial bodies which are empowered to not only review state reports but also to receive and

¹⁷ See Vienna Declaration on Human Rights (1993) para 1.

¹⁸ S Ouald-Chaib ‘Introduction’ in E Brems & S Ouald-Chaib (eds) *Fragmentation and Integration in Human Rights Law* (2018) at 2.

¹⁹ D Anton & D Shelton ‘The International Protection of Human Rights’ in D Anton & D Shelton (eds) *Environmental Protection and Human Rights* (2011) at 224.

²⁰ General Assembly Resolution 217A (10 December 1948).

²¹ Entry into force 23 March 1976, currently 173 ratifications.

²² Entry into force 3 January 1976, currently 171 ratifications.

²³ Anton & Shelton op cit note 19 at 230; M Wewerinke-Singh ‘State Responsibility for human rights violations associated with Climate Change’ in S Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (2018) at 78.

²⁴ Notable exceptions are China regarding the ICCPR and the United States regarding the ICESCR.

adjudicate individual complaints,²⁵ they do not dispose of effective mechanisms to enforce their decisions. Their interpretations of the respective treaties is generally seen as not legally binding.²⁶ Regardless of the lack of a formal enforcement procedure, many states consider themselves bound by decisions of the treaty Committees. Moreover, state courts often take international law, including the Committee interpretations thereof, into account when applying human rights in domestic constitutions. A strong case for climate protection based on an international human rights instruments can thus strengthen domestic climate change litigation all over the world.²⁷

b) Foundations: Regional systems

In addition to the international human rights treaties, there are currently five regional human rights systems with greatly varying degrees of integration, enforcement and credibility: The well-established systems are the Inter-American human rights system, based on the 1948 American Declaration of the Rights and Duties of Man ('ADRDM')²⁸ and the 1969 American Convention on Human Rights ('ACHR'),²⁹ and monitored by the Inter-American Commission on Human Rights ('IACmHR') and the Inter-American Court of Human Rights ('IACtHR'); secondly the European human rights system, based on the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms ('ECHR')³⁰ and monitored by the European Court of Human Rights ('ECtHR'); and thirdly the African human rights system, based on the 1981 African Charter on Human and Peoples' Rights ('ACHPR')³¹ and monitored by the African Commission on Human and Peoples' Rights ('ACmHPR') and the African Court on Human and Peoples' Rights ('ACtHPR'). Next to these long-standing and well-acknowledged systems, recent years have seen the adoption of the Arab Charter on Human Rights ('Arab Charter')³² and the ASEAN Human Rights Declaration ('ASEAN Declaration').³³ Not only are these latter two instruments younger than the first three regional systems and their institutional capacities less developed, there is also significant concern over

²⁵ Most importantly Art. 1 Optional Protocol to the ICCPR, entry into force 23 March 1976, currently 116 ratifications; and Art. 1 Optional Protocol to the ICESCR, entry into force 5 May 2013, currently 24 ratifications.

²⁶ N Ando 'General Comments/Recommendations' in R Wolfrum (ed) *MPEIL* (2008) para 41.

²⁷ Peel & Osofsky op cit note 5 at 42.

²⁸ Adopted 2 May 1948; although originally not legally binding, the ADRDM is now regarded as binding on the members of the Organisation of American States, C Grossmann 'American Declaration on the Rights and Duties of Man' in R Wolfrum (ed) *MPEIL* (2010) paras 11-16.

²⁹ Entry into force 18 July 1978, currently 25 ratifications.

³⁰ Entry into force 3 September 1953, currently 47 ratifications.

³¹ Entry into force 21 October 1986, currently 54 ratifications.

³² Entry into force 15 March 2008.

³³ Adopted 18 November 2012.

some provisions that might serve to undermine human rights guarantees, rather than reinforce them.³⁴ In light of these uncertainties, arguments taken from the three older regional systems will often carry higher persuasive power than those from the two recent instruments.

In comparison to the international human rights treaty system described earlier, regional systems often have stronger enforcement mechanisms. For example, the judgements of the ECtHR,³⁵ the IACtHR³⁶ and the ACtHPR³⁷ are legally binding on parties that have ratified the respective establishing treaties. In consequence, they can often provide detailed case law that influences the interpretation of international human rights norms.³⁸

c) Relation to other fields of law

While the clear focus of this paper is human rights law, it will become clear that many questions are inextricably linked to other areas of international law. For example, the rules of state responsibility under general public international law might be fruitful when asking for attribution of human rights impacts to GHG-emitting activities by states.³⁹ Important ideas from climate change law and international environmental law include the precautionary principle and the no harm rule, both of which might help interpret or even extend human rights provisions and respective duties.⁴⁰ The central question in each of these cases remains, however, if the legal principle can indeed be transferred to human rights law.

d) Summary

Of the mentioned human rights treaties, some are more promising for the purposes of this paper than others. This is because the objective of the following discussion is to identify rights guarantees and arguments that can be used to enforce climate protection in as many countries as possible. For this purpose, comprehensive treaties with a large number of ratifications, high authority and effective enforcement are more helpful than smaller, specialised treaties. In the following, the focus will therefore often lie on the big treaties, especially the ICCPR and the ICESCR. Nonetheless, relevant right guarantees from the more

³⁴ For the Arab Charter M Rishmawi 'Arab Charter on Human Rights' in R Wolfrum (ed) MPEIL (2008) para 64.

³⁵ Art. 46(1) ECHR.

³⁶ Art. 68(1) ACHR.

³⁷ Art. 30 Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights, entry into force 25 January 2004, currently 30 ratifications.

³⁸ See generally S Atapattu 'Climate change under regional human rights systems' in S Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (2018) at 128.

³⁹ See infra section IV.2.c).

⁴⁰ See infra sections IV.2.c) and V.2.b).

specific treaties shall also be mentioned. More importantly, lines of reasoning and arguments developed under a specialised or regional human rights system that can be transferred to the general treaties can exert a strong persuasive influence on the interpretation of the universal treaties.⁴¹

3. Bringing climate change and international human rights law into relation

The relevance of environmental aspects for human rights was discovered relatively early. As soon as 1968 did the General Assembly express its concern over the effects of environmental change on, among other things, the ‘enjoyment of basic human rights, in developing as well as developed countries’.⁴² Four years later, the 1972 United Nations Conference on the Human Environment in Stockholm reinforced and specified the link between environment and human rights: The environment is ‘essential to ... the enjoyment of basic human rights – even the right to life itself’.⁴³ While these documents do not yet make specific reference to the then rather obscure phenomenon of climate change, they laid the groundwork by establishing the link between environment and human rights.

On this basis, mainly two efforts can be seen to have clarified the human rights impacts of climate change, both of which came from groups of people immediately affected: The 2005 Inuit Petition to the IACmHR (‘Inuit Petition’) and the 2007 Male’ Declaration on the Human Dimensions of Climate Change (‘Male’ Declaration’).⁴⁴ The Inuit Petition alleged that the United States as the biggest greenhouse gas emitter of the time were violating various rights of the Arctic Inuit protected under the ADRDM. Although unsuccessful in litigation (the IACmHR rejected the claim citing lack of evidence), it ‘was the first of a cascade of efforts to bring human rights to bear on climate change’⁴⁵ and ‘galvanized a new international dialogue on climate change as a human rights concern.’⁴⁶ In the Male’ Declaration, a number of Small Island Developing States called for, among other things, a ‘detailed study into the effects of climate change on the full enjoyment of human rights’. This study was conducted by the OHCHR and published in January 2009.⁴⁷ The resulting report can be seen as the first work to

⁴¹ The World Bank op cit note 4 at 46.

⁴² General Assembly Resolution 2398 of 3 December 1968.

⁴³ Declaration of the United Nations Conference on the Human Environment = UN Doc A/CONF.48/14/REV.1 at 3.

⁴⁴ J Knox ‘Linking Climate Change and Human Rights at the United Nations’ (2009) 33 *Harvard Environmental Law Review* at 479-84.

⁴⁵ Knox op cit note 3 at 166

⁴⁶ R Bratspies ‘Claimed Not Granted: Finding a Human Right to a Healthy Environment’ (2017) 26 *Transnational Law and Contemporary Problems* at 277.

⁴⁷ OHCHR op cit note 16.

examine in detail the impact of climate change on human rights. This process of applying human rights law to climate change has been aptly described as a ‘greening of human rights’⁴⁸ or an ‘ecologically literate reading of existing human rights’.⁴⁹ Since then, more or more attention has been given to the nexus between climate change and human rights which has since become a ‘sustained focus’.⁵⁰

Recently, the 2015 Paris Agreement under the UNFCCC broke new ground by being the first international environmental convention to explicitly refer to human rights obligations in climate change in its preamble:

‘Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity’⁵¹

The significance of this reference is evaluated quite differently with opinions ranging from eulogistic to highly critical assessments.⁵² For present purposes two things shall be pointed out: First, the preamble demands that states ‘respect, *promote* and *consider* their respective obligations on human rights’ (emphasis added). This deliberate deviation from the more established tripartite duty to ‘respect, protect and fulfil’ works to limit the effect of the recognition of human rights in the Paris Agreement.⁵³ Secondly, the formulation ‘*when* taking action’ (emphasis added) indicates that the signing parties are more inclined to accept human rights duties when designing and implying measures against climate change,⁵⁴ not so much obligations that require to take such actions in the first place (which are the topic of this paper).⁵⁵

⁴⁸ A Boyle ‘Human Rights and the Environment: Where Next?’ in A Trindade & C Leal (eds) *Human Rights and Environment* (2017) at 10.

⁴⁹ Collins op cit note 4 at 127-8.

⁵⁰ Peel & Osofsky op cit note 5 at 42.

⁵¹ Preamble Paris Agreement, entry into force 4 November 2016, currently 189 ratifications.

⁵² Overview at L Rajamani ‘Integrating Human Rights in the Paris Climate Architecture: Contest, Context and Consequence’ (2019) 9 *Climate Law* at 185-6.

⁵³ Ibid at 192-3; S Atapattu ‘The Right to a Healthy Environment and Climate Change’ in J Knox & R Pejan (eds) *The Human Right to a Healthy Environment* (2018) at 258.

⁵⁴ The problem of negative human rights impacts by climate change response measures is not subject of this paper, see only OHCHR op cit note 16 at 66.

⁵⁵ Similar Rajamani op cit note 52 at 184 and 191.

Regarding mitigation, the Paris Agreement requires state parties to ‘prepare, communicate and maintain successive nationally determined contributions’ (‘NDCs’).⁵⁶ While the treaty gives certain guidelines as to how these NDCs shall be determined,⁵⁷ it is essentially in the hands of each party to decide how ambitious its mitigation efforts will be. Moreover, there is no mechanism that could enforce the realisation of the NDCs.⁵⁸

In light of this system of international climate protection which ‘relies fundamentally on the good faith of states in determining the ambition and implementation of their NDCs’,⁵⁹ the question arises how affected individuals can ensure responsibility and accountability for climate change impact. Against the more facilitative approach of the Paris Agreement, a human rights case for mitigation could provide the necessary prescriptive elements.

III. Factual climate change impacts on human rights

While there are still many open questions regarding the legal demands of human rights law vis-à-vis climate change, little doubt exists today as to the factual impact that a changing climate can have on various human rights. As Hall & Weiss put it: ‘In short, we consider the question of whether climate change implicates human rights to be closed’.⁶⁰ Of course, it is a more complex matter which exact impacts occur and how.

1. Assessing the impact of climate change on established human rights

In its seminal report, the OHCHR noted that ‘global warming will potentially have implications for the full range of human rights’.⁶¹ Nonetheless, certain human rights guarantees are likely to be impacted more than others. In order to illustrate the impact of climate change, the following analysis will address the legal basis, the content and specific

⁵⁶ Art. 4(2) Paris Agreement.

⁵⁷ In particular the reference in Art. 4(1) to the overall goal of ‘[h]olding 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’ in Art. 2(1)(a), as well as the requirement of progression in Art. 4(3) Paris Agreement.

⁵⁸ P Minnerop ‘Climate Protection Agreements’ in R Wolfrum (ed) *MPEIL* (2018) para 26.

⁵⁹ Rajamani op cit note 52 at 194.

⁶⁰ M Hall & D Weiss ‘Avoiding Adaptation Apartheid’ (2012) 37 *Yale Journal of International Law* at 345; going further S Atapattu & A Schapper *Human Rights and the Environment* (2019) at 3 who state that ‘[i]t is now generally recognized that human rights can be *infringed* by environmental degradation’ (emphasis added). The term ‘infringed’ points to an (attributable) violation of a right, not just a factual impact.

⁶¹ OHCHR op cit note 16 para 20; see also the graphic overview in M Limon ‘Human Rights and Climate Change’ (2009) 33 *Harvard Environmental Law Review* at 476.

impairment of a number of rights. It is important to note, however, that the effects on different human rights are usually not separate and independent, but rather interlinked and overlapping.

a) **The right to life**

A central aspect in this regard is the ‘supreme right’⁶² of the catalogue of international human rights: the right to life. It is enshrined, for example, in Art. 3 UDHR, Art. 6 ICCPR and the major regional human rights treaties.⁶³

The right to life protects its bearers against ‘unnatural and premature deaths’.⁶⁴ Climate change, however, leads to numerous effects that lead to otherwise preventable deaths. Obvious cases are extreme weather events, such as storms, floods and wildfires.⁶⁵ But also more subtle developments like the spread of vector-borne diseases⁶⁶ and consequences of malnutrition⁶⁷ can lead to ‘premature deaths’. The Human Rights Committee (‘HRC’) which monitors the ICCPR has listed climate change as one of ‘the most pressing and serious threats to the ability of present and future generations to enjoy the right to life.’⁶⁸ In this context, it is important to note that already today, climate change has been linked to 150000 premature deaths per year.⁶⁹ The deadly consequences of climate change hence are by no means a distant dystopia.⁷⁰

b) **The right to the highest attainable standard of health**

Related to the right to life is the right to the highest attainable standard of health which is recognised in Art. 25(1) UDHR (as part of the right to an adequate standard of living) and most prominently in Art. 12(1) CESC. ⁷¹ According to the CESC Committee, Art. 12(1) CESC includes not only the right to health care, but also the ‘underlying determinants of health’, which include inter alia ‘healthy ... environmental conditions’.⁷²

⁶² HRC *GC No. 6* (1982) para 1; *GC No. 14* (1984) para 1.

⁶³ Art. 2(1) ECHR, Art. 4 ACHPR, Art. 1 ADRDM, Art. 4(1) ACHR.

⁶⁴ HRC *GC No. 36* (2018) para 6.

⁶⁵ OHCHR op cit note 16 para 22.

⁶⁶ D Boyd *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment* = UN Doc A/74/161 (2019) para 29.

⁶⁷ See in detail *infra* section III.1.c).

⁶⁸ HRC *GC No. 36* para 62.

⁶⁹ Boyd op cit note 66 para 29.

⁷⁰ Although the predicted consequences are even more dire, see World Health Organisation *Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s* (2014) at 1 which expects 250,000 additional deaths per year between 2030 and 2050 due to various effects of climate change.

⁷¹ See also Art. 11 European Social Charter (as revised), Art. 16(1) ACHPR, Art. 10 Protocol of San Salvador.

⁷² ICESCR-Committee *GC No. 14* (2000) para 11.

Climate change affects many of the environmental conditions of human life and in many cases changes them into an unhealthier state. According to the IPCC, ‘climate change will impact human health mainly by exacerbating health problems that already exist’ and ‘is expected to lead to increases in ill-health in many regions’.⁷³ For example, a warmer climate leads to a larger spread of vectoral diseases like Malaria.⁷⁴ Moreover, it will impact negatively other conditions of good health that are protected by Art. 12(1) ICESCR, such as water and food security.⁷⁵ Ultimately, climate change will increase the demand on national health systems around the world and thereby threaten the right to ‘timely and appropriate health care’.⁷⁶

c) The right to adequate food

As mentioned, climate change is moreover predicted to exacerbate malnutrition for many people which would impact the right to adequate food. This human right is entrenched most prominently in Art. 25(1) UDHR and Art. 11(1) CDESCR as part of an adequate standard of living and in Art. 11(2) CDESCR as ‘the fundamental right of everyone to be free from hunger’.

The ICESCR-Committee notes that the ‘right to adequate food is realized when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.’⁷⁷ Climate change and especially global warming can lead to contrasting effects on food security in different parts of the world: While certain locations, especially higher latitudes, may benefit and increase food production,⁷⁸ large regions will see their food resources negatively affected, most notably in fisheries and crop production.⁷⁹ On balance, climate change will affect many sources of food negatively⁸⁰ and thereby reduce the possibilities for ‘feeding oneself’ as well as food distribution systems. This threatens the full enjoyment of the right to adequate food for many people. According to calculations by the World Food Programme, the number of people at

⁷³ IPCC op cit note 8 at 14.

⁷⁴ OHCHR op cit note 16 para 32; P Hunt *Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health* = UN Doc A/62/214 (2007) paras 100-1.

⁷⁵ ICESCR-Committee *GC No. 14* para 11.

⁷⁶ *Ibid.*

⁷⁷ ICESCR-Committee *GC No. 12* (1999) para 6.

⁷⁸ OHCHR op cit note 16 para 26; IPCC op cit note 8 at 13 speaks of benefits for ‘individual locations’.

⁷⁹ *Ibid* at 15, figure SPM.9.

⁸⁰ *Ibid* at 6, 13.

risk of hunger in 2050 will be 10-20 per cent higher as a result of climate change and the number of malnourished children could be 21 per cent higher.⁸¹

d) The right to water

An explicit, stand-alone right to water is not enshrined in the major human rights treaties. In particular, water, other than food, is not mentioned specifically in Art. 11 ICESCR.

Nonetheless, access to clean and sufficient water is seen as indispensable for an adequate standard of living in the meaning of Art. 11 ICESCR and hence a right to water is acknowledged within that article.⁸² The right to water is moreover ‘inextricably related’ to Art. 12(1) ICESCR, the right to the highest attainable standard of health.⁸³

The content of the right to water encompasses four major aspects: Availability, quality, accessibility (both physical and economic) and, as a procedural right, information accessibility.⁸⁴ At that, one has not only a right to drinking water but also to water for other basic needs, such as sanitation, washing of clothes, food preparation etc.⁸⁵ In the context of climate change, higher temperatures lead to the melting of glaciers and snow covers which many people rely on for their supply of fresh water.⁸⁶ Already today, these effects can be felt in some parts of the world.⁸⁷ Other water resources, especially groundwater, will most likely also be reduced in dry regions.⁸⁸ Droughts will equally threaten the water supply of many people.⁸⁹ Moreover, extreme floods can impair water infrastructure and water quality.⁹⁰

e) The right to adequate housing

The risk of floods is a major threat also to the right to adequate housing. Like food, adequate housing is recognised explicitly as part of the right to an adequate standard of living in Art. 11(1) ICESCR.

According to the ICESCR-Committee, the right must be understood comprehensively as ‘the right to live somewhere in security, peace and dignity’.⁹¹ Among other elements, this

⁸¹ World Food Programme *Climate Change and Hunger. Responding to the Challenge* (2009) at 14.

⁸² ICESCR-Committee *GC 15* (2003) para 3, emphasizing the word ‘including’ in Art. 11 ICESCR.

⁸³ *Ibid* para 3.

⁸⁴ *Ibid* para 12.

⁸⁵ *Ibid* para 12.

⁸⁶ OHCHR op cit note 16 para 29, calculating the affected group at one sixth of world population.

⁸⁷ Boyd op cit note 66 para 38 citing the example of Bolivia.

⁸⁸ IPCC op cit note 8 at 13.

⁸⁹ OHCHR op cit note 16 para 29.

⁹⁰ Boyd op cit note 66 para 39.

⁹¹ ICESCR-Committee *GC No. 4* (1991) para 7.

encompasses the requirement that housing must be ‘habitable’ – protecting its habitants ‘from cold, damp, heat, rain, wind or other threats to health, structural hazards, and disease vectors’.⁹² As a consequence of climate change, many regions that are now populated will become inhabitable. This is particularly true for coastal and delta areas which will be affected by sea level rises, storms and flooding. In some parts, these developments have already led to resettlements.⁹³ As more areas become inhabitable or incapable of sustaining their populations, the stress on the housing market will increase, forcing people to live in worse conditions, especially in urban areas.⁹⁴

f) The right to self-determination

The right to self-determination of peoples is most prominently enshrined in the common Art. 1 ICCPR and ICESCR. It is also recognised as a right in Art. 3, 4 UN Declaration on the Rights of Indigenous Peoples.⁹⁵ Art. 1(2) and 55 UNCh refer to the ‘principle of ... self-determination of peoples’.

Other than the previously mentioned rights, the right to self-determination is vested not in individuals but in ‘peoples’; it is a collective human right. Moreover, it cannot be asserted under the Optional Protocol to ICCPR.⁹⁶ According to the HRC, Art. 1(2) ICCPR, ICESCR entails that ‘[i]n no case may a people be deprived of its own means of subsistence’.⁹⁷ Other than the other rights in the ICCPR, which apply only so far as the territory or jurisdiction of a state go,⁹⁸ the right to self-determination applies to state parties even outside their territory.⁹⁹

However, through climate change certain peoples might lose exactly their ‘own means of subsistence’. This is true in particular for small island states whose very existence is endangered by sea level rises.¹⁰⁰ It is evident that the disappearance of a nation’s whole territory affects their right to self-determination. For indigenous peoples, the connection to

⁹² Ibid para 8.

⁹³ OHCHR op cit note 16 para 36.

⁹⁴ B Lewis ‘Human Rights Duties to Future Generations’ (2016) 34 *Netherlands Quarterly of Human Rights* at 210.

⁹⁵ As a General Assembly Declaration, these articles are strictly speaking not legally binding, but can provide guidelines for the interpretation of binding norms such as Art. 1 ICCPR, ICESCR.

⁹⁶ M Wewerinke-Singh *State Responsibility, Climate Change and Human Rights under International Law* (2019) at 118.

⁹⁷ HRC *GC No. 12* (1984) para 5.

⁹⁸ Art. 2(1) CCPR: ‘all individuals within its territory and subject to its jurisdiction’, in detail see infra section V.2.a).

⁹⁹ HRC *GC No. 12* paras 5-6 on Art. 1(2) and 1(3) respectively.

¹⁰⁰ OHCHR op cit note 16 paras 40-1. See also IPCC op cit note 8 at 13 which predicts a sea level rise of up to 0,82m until 2100.

their traditional lands is crucial for their way of live and the enjoyment of their right to self-determination. If ancestral lands become inhabitable or can no longer sustain the livelihoods of indigenous peoples, their right to self-determination is severely affected.¹⁰¹

g) Other human rights

This list is by no means exhaustive, other guarantees can as well be impacted. For example, the right to property¹⁰² will be touched when assets are lost in extreme weather events triggered or exacerbated by climate change.¹⁰³ Especially in the context of the European human rights system, environmental factors that affect applicants have frequently been deemed violations of their right to privacy.¹⁰⁴

2. An (emerging) right to a healthy environment?

While emphasizing the impact of climate change on established civil, political or economic rights is helpful for clarifying the consequences of climate change, some advocates opine that this ‘cobbling together’¹⁰⁵ of essentially non-environmental human rights to address environmental issues such as climate change is an insufficient measure. Rather, they argue, one should look for a ‘separate, independent human right, not dependent on the existing protected rights recognized in the international covenants’.¹⁰⁶ A human right to a healthy environment.

a) Content of a right to a healthy environment and relevance for duty to mitigate

While at first glance it is very plausible that such a right would be impacted by climate change, the exact nature of the effects is difficult to ascertain due to the still vague content of the right. This starts with the exact name of the right: While the right to a ‘healthy’ environment is referred to frequently,¹⁰⁷ a number of different adjectives are indeed being used, for example ‘clean, healthy, ecologically balanced, sound, healthful, adequate, viable, decent, sustainable’.¹⁰⁸ A different adjective can of course shift the focus and content of the

¹⁰¹ Knox op cit note 44 at 486 (the right is “destroyed”).

¹⁰² Art. 17(1) UDHR, Art. 1 First Protocol to ECHR, Art. 31 ADHR, Art. 21(1) ACHR.

¹⁰³ IPCC op cit note 8 at 14.

¹⁰⁴ Atapattu op cit note 38 at 130. In detail see infra section IV.2.c).

¹⁰⁵ R Bratspies ‘Claimed not granted: Finding a human right to a healthy environment’ (2017) 26 *Transnational Law and Contemporary Problems* at 271.

¹⁰⁶ Collins op cit note 4 at 131.

¹⁰⁷ Ibid at 137.

¹⁰⁸ Ibid at 136-7

right. For the purposes of this paper, the name of a ‘healthy’ environment is being used as it is the most common in discussions and has also found its way into treaties.¹⁰⁹

Some clarification on the content of this right can be found in the case law of regional human rights systems. In Africa, the ACmHPR interprets the right in the following sense: ‘It requires the state to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources.’¹¹⁰ In light of the impacts of climate change which must be seen to lead to ‘ecological degradation’ and to threaten ‘conservation’ and ‘ecologically sustainable development’, the right to a healthy environment would be impacted profoundly by climate change.¹¹¹

In the literature, the right to a clean environment is often understood to encompass two parts:¹¹² Procedural and substantive rights. The former are currently already acknowledged individually in certain treaties but can and should easily be integrated into a larger, comprehensive right to a clean environment. This would be in line with Art. 1 Aarhus Convention and Escazú Agreement which make indirect reference to such a right.¹¹³ The substantial rights could be seen to include an individual or collective right to an environment that is healthy for the human rights bearers and moreover acknowledges the intrinsic value of the environment.¹¹⁴ Nonetheless, the right would still be vested in human beings, not in nature itself. While such a conception has been applied in certain national jurisdictions,¹¹⁵ it lies far outside the traditional international human rights law.¹¹⁶

Naturally, the substantive part of a right to a healthy environment would have significant overlap with other human rights,¹¹⁷ in particular the right to the highest achievable standard of

¹⁰⁹ Most importantly Art. 24 Banjul Charter and Art. 11 Protocol of San Salvador; according to the ACmHPR, the right is ‘widely known’ as ‘right to a healthy environment’, *SERAC v Nigera* (Communication 155/96, October 2001) para 52.

¹¹⁰ *Ibid.*

¹¹¹ O Quirico ‘Climate Change and State Reponsibility for Human Rights Violations’ (2018) 65 *Netherlands Internaitonal Law Review* at 205.

¹¹² Collins op cit note 4 at 148; L Rodríguez-Rivera ‘The Right to Environment’ in von Arnould et al (eds) *The Cambridge Handbook on New Human Rights* (2020) at 16.

¹¹³ On the limitations of procedural rights: Rodríguez-Rivera op cit note 112 at 35-6.

¹¹⁴ *Ibid* at 13-14; World Bank op cit note 4 at 56.

¹¹⁵ Atapattu op cit note 53 at 268.

¹¹⁶ G Handl ‘The Human Right to a Clean Environment and Rights of Nature’ in von Arnould et al (eds) *The Cambridge Handbook on New Human Rights* (2020) at 153.

¹¹⁷ Collins op cit note 4 at 148.

health which includes ‘healthy ... environment conditions.’¹¹⁸ However, it would seem very possible to distinguish the right to a healthy environment from other human rights by protecting environmental conditions without the requirement of a concrete threat to an individual’s well-being¹¹⁹ and stressing the intrinsic value of the environment which is not protected by other rights guarantees.¹²⁰

Such a right would be highly significant as a basis for a duty to mitigate. As will become clearer later, a pivotal problem of human rights obligations with respect to climate change is the issue of causation. It is often virtually impossible to prove the specific link between climate change and a specific human rights impact as the impact occurs only in an indirect manner.¹²¹ Insofar as a healthy environment itself was protected under a right to a healthy environment, however, claimants would only have to prove a general impact of climate change on the general climate, not on individual human beings.¹²² Obviously, this would make the case for a duty to mitigate much easier.

b) Is a right to a healthy environment acknowledged in international human rights law?

The crucial question, however, is if such a right can be seen to exist as an – emerging? – human right on the international level.

As mentioned, certain procedural elements have been regionally recognised in Art. 1 Aarhus Convention and Art. 1 Escazú Agreement. A substantial right to a healthy environment can be found in Art. 24 ACHPR,¹²³ Art. 11(1) Protocol of San Salvador, Art. 38 Arab Charter (as part of the right to an adequate standard of living) and Art. 28(f) ASEAN Declaration (‘safe, clean and sustainable environment’, also as part of an adequate standard of living). In sum, these regional treaties acknowledging a right to a healthy environment in one form or another apply to more than 130 states.¹²⁴ Moreover, on the national level more than 100 states

¹¹⁸ ICESCR-Committee *GC No. 14* para 11.

¹¹⁹ See Rodríguez-Rivera op cit note 112 at 20.

¹²⁰ Similar ibid at 26.

¹²¹ Ibid at 20.

¹²² Limon op cit note 61 at 469.

¹²³ Reaffirming and elaborating the right specifically for women in Africa: Art. 18 Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa, entry into force 25 November 2005.

¹²⁴ J Knox *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment* = UN Doc A/73/188 (2018) para 34.

recognise a right to a healthy environment in their constitutions and a similar number protects the right in ordinary legislation.¹²⁵

In light of this substantial recognition of a right to a healthy environment on the regional and national level, some scholars argue that such a guarantee is emerging as customary law or at least a general principle¹²⁶ on the international level as well.¹²⁷ Next to national and regional law, they rely on Art. 1 of the 1972 Stockholm Declaration which ‘introduced the notion of a human right to environment into international law for the first time.’¹²⁸ It reads:

‘Man [sic] has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations.’¹²⁹

However, there are already doubts if this is indeed an acknowledgement of the right to a healthy environment.¹³⁰ More importantly, the Stockholm Declaration is a non-binding document¹³¹ (the introduction to the principles accordingly reads ‘Stating the common conviction that’). There are no legally binding documents on the international level that acknowledge a right to a healthy environment.¹³² Moreover, neither the 1992 Rio Declaration, nor the 2015 Paris Agreement make reference to such a right.¹³³ The apparently greater number of scholars thus sees no sufficient state practice and *opinio juris* to support the right’s status as customary international law.¹³⁴

In fact, the debate often demonstrates a deeper conflict of opinion, namely a fundamental disagreement between a ‘traditionalist’ view on international human rights law and a more ‘progressive’ starting point.¹³⁵ For the latter group, the requirement of factual evidence of

¹²⁵ Ibid paras 30, 32.

¹²⁶ See Art. 38(1) Statute of the International Court of Justice, entry into force 24 October 1945, currently 193 ratifications.

¹²⁷ Rodríguez-Rivera op cit note 112 at 162; Atapattu op cit note 53 at 253; Collins op cit note 4 at 136.

¹²⁸ Collins op cit note 4 at 124.

¹²⁹ Principle 1 Stockholm Declaration; Rodríguez-Rivera op cit note 112 at 156.

¹³⁰ L Sohn ‘Stockholm Declaration on the Human Environment’ (1973) 14 *Harvard International Law Journal* at 455; more assertive Collins op cit note 4 at 132.

¹³¹ Sohn op cit note 130 at 515, stating the hope that it might become accepted as customary international law; G Handl ‘Human Rights and Protection of the Environment’ in A Trindade (ed) *Human Rights and Environmental Protection* (1995) at 123.

¹³² Handl op cit note 131 at 140.

¹³³ Because of this, Limon op cit note 61 at 472 constates that ‘we have in fact gone backward’.

¹³⁴ World Bank op cit note 4 at 57; Handl op cit note 116 at 139-40; Handl op cit note 131 at 121, 123-8.

¹³⁵ Generally Handl op cit note 131 at 120.

state practice regarding a right to a healthy environment is less stringent because the right is supported by the ‘will of humanity’¹³⁶ or arguments of justice. While this vantage point has a lot of appeal and promotes a pro-active stance towards climate change, it might be less effective, as most states indeed do follow a traditionalist approach and consider ‘state consent ... the sine qua non of international legal norms’.¹³⁷ Most states will thus not be prepared to accept a right to a healthy environment without sufficient evidence of state practice and *opinio juris*. This would ultimately make it a ‘mere paper right’¹³⁸ and ineffectual in the fight against climate change.

In conclusion, at present most legal scholars deny the existence of a substantive right to a healthy environment as a binding rule of public international law¹³⁹ – a view that international mandate holders seem to agree with.¹⁴⁰ While certain procedural rights that one can count as parts of such a right are explicitly stipulated in treaties and might have become customary law,¹⁴¹ a comprehensive, substantial right to a clean environment recognising the intrinsic value of nature is currently not part of the catalogue of internationally accepted human rights. It can therefore not be impacted by climate change and not be the starting point for any obligations. De lege ferenda, however, such a right would be a powerful tool to facilitate the response to climate change.

3. Climate Justice: Vulnerability and unequal degrees of impact

While the described impacts will affect the human rights of a large number of people, the severity can differ considerably between and within states. Between different states, some are affected more severely by climate change simply for geographical reasons. For example, small island states are more at risk of sea rises¹⁴² and countries in dry regions are menaced more severely by droughts.¹⁴³ Secondly, not only the degree of impact varies but also to

¹³⁶ L Rodríguez-Rivera op cit note 112 (‘In light of the universality of human rights, the traditionalists’ emphasis on state consent in discussing human rights is misplaced. The source of human rights is not the will of states, but the will of humanity.’); similar Bratspies op cit note 105 at 271 and 273.

¹³⁷ Collins op cit note 4 at 125, see also 126.

¹³⁸ Handl op cit note 131 at 121.

¹³⁹ Handl op cit note 116 at 157; Limon 61 at 470; A von Arnald *Völkerrecht* (3rd ed, 2016) at 402; World Bank op cit note 4 at 57.

¹⁴⁰ Knox op cit note 124 paras 37 et seq, advocating for such a right to be legally recognized.

¹⁴¹ J Knox *Mapping Report* = UN Doc A/HRC/25/53 (2013) at 29-43. An example for binding environmental obligations between states is the *Pulp Mills* case of the ICJ which held that the duty to perform environmental impact assessments is now so generally accepted that it is mandatory under international law, *Pulp Mills on the River Uruguay* (20 April 2020) para. 204.

¹⁴² Atapattu op cit note 52 at 262.

¹⁴³ Boyd op cit note 66 para 8, citing for example a flooding in Pakistan in 2010 and droughts in East-Africa in 2011.

which extend a state can react and alleviate its effects. While rich states have an array of adaptation measures at their disposal, such as building dikes, new water facilities, early warning systems,¹⁴⁴ less developed countries will often lack the necessary resources for such initiatives.¹⁴⁵ Unfortunately, the countries that are impacted most by climate change, often are the ones that are least equipped to adapt to it (for example many African countries¹⁴⁶ and small island states¹⁴⁷). This inequality is aggravated by the fact that the people most affected by climate change are often the least responsible for climate change as less developed states are historically responsible for only a minimal share of GHG-emissions.

Similar inequalities exist at an intra-state level where already disadvantaged groups, such as ‘women, children, persons living in poverty, members of indigenous peoples and traditional communities, older persons, persons with disabilities, national, ethnic, religious or linguistic minorities and displaced persons’¹⁴⁸ often bear the brunt of the impacts.

4. Summary

Taking the prediction by the OHCHR from 2009 that ‘global warming will potentially have implications for the full range of human rights’,¹⁴⁹ only one adjustment has to be made eleven years later: Global warming not only ‘will potentially’ compromise human rights guarantees but this process is already well underway, actually. It should nowadays be beyond dispute that the consequences of climate change already impact virtually all rights and that this will only aggravate over time. Climate change in and of itself, however, cannot be seen as an impairment of human rights, as there is no self-standing right to a healthy environment so far. Importantly, the human rights impact is by no means evenly distributed. In general terms, less developed states are affected more than developed states and marginalized groups more than privileged ones.

¹⁴⁴ See for example the recommendations for the Netherlands of the Dutch Delta Commission which are estimated to cost 1 to 1,5 billion Euros every year until 2100, Deltacommissie *Working together with water* (2008) at 11.

¹⁴⁵ Hall & Weiss op cit note 60 at 310.

¹⁴⁶ IPCC *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report* (2014) at 1202-3.

¹⁴⁷ Ibid at 1616-17.

¹⁴⁸ Knox op cit note 124 para 22, talking about environmental harm in general with a detailed description of specific vulnerabilities in the following paras.

¹⁴⁹ OHCHR op cit note 16 para 20.

IV. Human rights obligations in relation to climate change: The duty to mitigate

In contrast to the broad consensus on the factual impact, the question which legal consequences arise as a consequence has been problematic from the beginning.

1. Procedural duties and duty to adapt

11 years ago, the OHCHR noted: ‘While climate change has obvious implications for the enjoyment of human rights, it is less obvious whether, and to what extent, such effects can be qualified as human rights violations in a strict legal sense.’¹⁵⁰ Accordingly, the report estimates it ‘doubtful ... that an individual would be able to hold a particular State responsible for harm caused by climate change’.¹⁵¹

In the years since the OHCHR study, the reluctance towards a human rights-approach seems to have lessened considerably. In part due to a better understanding of both the scientific processes behind climate change as well as new interpretations of human rights norms, there is now considerable agreement that human rights law does indeed impose obligations with regard to climate change. This is most evident for procedural duties¹⁵² and duties to take adaptation measures, that is measures which ‘strengthen the capacity of societies and ecosystems to cope with and adapt to climate change risks and impacts.’¹⁵³

Other than mitigation efforts, adaptation measures do not reduce climate change but only cushion its consequences. Put poignantly, they do not treat the illness but contain the symptoms. In that, they have a crucial role in protecting human rights against climate change. For example, the building of new dikes can shelter human lives from rising sea levels and floods, thereby protecting the right to life. Investments in water systems can attenuate risks to water security, protecting the right to water. Improvements in the health sector can help secure the right to the highest attainable standard of health and reduce climate change induced risks. In the end, these measures can be very successful in protecting human rights. From the perspective of virtually all of the threatened rights, it does not matter – at least at first – if climate change continues to occur. As long as the bearers of human rights are sufficiently

¹⁵⁰ Ibid para 70; see also Limon op cit 61 note at 457 (‘It is true of course that, at present, it is very difficult to argue that climate change represents a violation of human rights’).

¹⁵¹ OHCHR op cit note 16 para 72.

¹⁵² Knox op cit note 3 at 174.

¹⁵³ OHCHR op cit note 16 para 12.

shielded from its impacts, no rights are being violated. In this light, it is now broadly accepted that states have an obligation protect their populations from specific climate change impacts.¹⁵⁴ This assessment is based largely on the ECtHR-jurisprudence on environmental threats, notably the case of *Budayeva v. Russia*.¹⁵⁵ On a national level, the Lahore High Court in the much-noted decision of *Leghari v Federation of Pakistan* found, among others, a violation of the right to life as enshrined in Art. 9 of the Pakistani Constitution because the State had failed to implement adaptation measures.¹⁵⁶

In the words of former Rapporteur on Human Rights and the Environment John Knox: '[w]ith respect to mitigation, the situation may be more complicated'.¹⁵⁷ While many commentators are in principle open to such an obligation, it is still little substantiated and very vague: States are merely required to 'do what they can', and 'at a minimum ... to take concrete actions to reduce their emissions on a schedule consistent with their international commitments'.¹⁵⁸

2. The duty to mitigate

In light of the scale of the projected consequences of climate change, however, mitigation efforts are an indispensable part of a viable response.¹⁵⁹ It is the goal of the following discussion to take up the present state of the debate on human rights duties with regard to climate change and strengthen the case of a human rights law obligation to mitigate.

a) Definition

As noted before, 'mitigation' refers to measures that 'minimize the extent of global warming by reducing emission levels and stabilizing greenhouse gas concentrations in the atmosphere'.¹⁶⁰ A duty to mitigate could hence require states on a general level to enact a scheme that limits overall emissions under their control, such as cap-and-trade programs, carbon taxes and/or regulations on specific processes and products to limit the related amount of emissions.¹⁶¹ With regard to specific projects, states could be obliged to stop polluting state activities. Moreover, they could be required to refrain from supporting emission intensive

¹⁵⁴ UNEP *Climate Change and Human Rights* (2015) at 20; see already OHCHR op cit note 16 para 73-4.

¹⁵⁵ ECtHR *Budayeva v. Russia* (20 March 2008) para 160; see OHCHR op cit note 16 para 74.

¹⁵⁶ Lahore High Court *Leghari v Federation of Pakistan* (25 January 2018, Case No: W.P. No. 25501/2015) paras 5 and 12.

¹⁵⁷ *Ibid* 176-7.

¹⁵⁸ *Ibid* at 177.

¹⁵⁹ IPCC op cit note 8 at 19: 'Adaptation can reduce the risks of climate change impacts, but there are limits to its effectiveness, especially with greater magnitudes and rates of climate change.'

¹⁶⁰ OHCHR op cit note 16 para 12.

¹⁶¹ Hall & Weiss op cit note 60 at 321.

projects, for instance new coal plants, oil drilling and airports, or even deny necessary permits (for building or operation).¹⁶²

b) *Justification: Duties to respect and to protect*

The question then is: Does human rights law impose on states a duty to mitigate? Such an obligation could arise under any of the impacted human rights described above as they are all impaired by climate change. With regard to each of these rights, states are under a general duty to respect, protect and fulfil it. The ICESCR-Committee in its General Comment on the right to the highest attainable standard of health has described this tripartite duty as follows:

*'The obligation to respect requires States to refrain from interfering directly or indirectly with the enjoyment of the right to health. The obligation to protect requires States to take measures that prevent third parties from interfering with article 12 guarantees. Finally, the obligation to fulfil requires States to adopt appropriate legislative, administrative, budgetary, judicial, promotional and other measures towards the full realization of the right to health.'*¹⁶³

While this differentiation was developed mostly with a view to cultural, social and economic rights, it is also applicable to political and civil rights¹⁶⁴ and is now by and large regarded as relevant to all human rights guarantees.¹⁶⁵

The duties to respect and to protect present themselves as possible foundations. This is because both duties are concerned with prohibiting potentially harmful behaviour, such as emitting GHG.

(1) *Duty to respect*

As mentioned, the duty to respect enjoins the state to 'refrain from interfering directly or indirectly with the enjoyment' of human rights.¹⁶⁶ If state activities that cause greenhouse gases can be seen to interfere with human rights guarantees a duty to reduce these actions can be envisioned as part of a duty to mitigate. This would be the case for state activity that produces emissions itself, such as state-owned enterprises or military manoeuvres, but also

¹⁶² Wewerinke-Singh op cit note 96 at 100.

¹⁶³ ICESCR-Committee GC 14 para 33 (emphasis added).

¹⁶⁴ Atapattu & Schatter op cit note 60 at 8

¹⁶⁵ See Boyd op cit note 66 at 63; UNEP op cit note 154 at 15.

¹⁶⁶ ICESCR-Committee GC 14 para 33.

state activity that enables emissions, such as subsidies and permissions for GHG intensive industries like oil-drilling or airports.¹⁶⁷

(2) Duty to protect

Of course, the impact of these singular actions is small in comparison to the overall emissions from a state's territory. More often than not, state organs themselves will not be responsible for most greenhouse gases but rather private parties, especially large corporations.¹⁶⁸ For these cases, a duty to mitigate can be construed under the duty to protect which 'requires States to take measures that prevent third parties from interfering' with human rights.¹⁶⁹ As this duty to protect is vested directly in the state organs as their own responsibility, it is not necessary that the dangerous private conduct is attributable to the state under Art. 8-11 of the ILC Articles on state responsibility.¹⁷⁰

3. The problem of Causation and attribution

There is a crucial problem in both cases, however: The question of causation and attribution. Applying the often-cited definitions of the ICESCR Committee the problem can be located in the word 'interfere'. When do GHG-emitting activities by state or private actors indeed 'interfere' with human rights?

a) The problem of causation

For many commentators, this seems to require a link between emissions and climate change impacts: Only if emitting activities by states or by private persons can be seen to indeed cause the described negative human rights impacts, would the activity constitute an interference that the state has a duty to refrain from (duty to respect) or to restrict (duty to protect).¹⁷¹ This is the point where many commentators see the biggest problem in establishing a duty to take specific action with regard to climate change¹⁷² and a duty to mitigate in particular.¹⁷³ The OHCHR described the problem as follows:

¹⁶⁷ Wewerinke-Singh op cit note 96 at 100.

¹⁶⁸ S Klinsky & J Brankovic *The Global Climate Regime and Transitional Justice* (2018) at 162.

¹⁶⁹ ICESCR-Committee *GC 14* para 33.

¹⁷⁰ Similar L Lavrysen who stresses that the liability is constructed by determining the 'sanctioned conduct' of the state, 'Causation and Positive Obligations under the European Convention on Human Rights' (2018) 18 *Human Rights Law Review* at 712.

¹⁷¹ See Hall & Weiss op cit note 60 at 350 ('Causation is generally a mandatory element of establishing liability; under human rights law, a party needs to be shown to have caused the harm to be held liable for the remedy').

¹⁷² For example OHCHR op cit note 16 para 96; Atapattu op cit note 53 at 257 (talking about state responsibility); Quirico op cit note 111 at 187.

¹⁷³ Hall & Weiss op cit note 60 at 343.

*'[I]t is virtually impossible to disentangle the complex causal relationships linking historical greenhouse gas emissions of a particular country with a specific climate change-related effect, let alone with the range of direct and indirect implications for human rights.'*¹⁷⁴

Similarly, while the reasoning for the rejection of the *Inuit Petition* did not refer to causation and only said that 'the information provided does not enable [the IACHR] to determine whether the alleged facts would tend to characterize a violation of rights protected by the American Declaration [the ADRDM]',¹⁷⁵ numerous observers interpreted this to imply the lack of a causal link between the GHGs and the alleged human rights infringements.¹⁷⁶

The United States District Court in *Kivalina* rejected a civil litigation¹⁷⁷ because the plaintiffs could not demonstrate the causation necessary for standing under Art. 3 US Constitution, the standard of which is 'a fairly traceable connection between the alleged injury in fact and the alleged conduct of the defendant' (emphasis omitted).¹⁷⁸ It noted that

*'there is no realistic possibility of tracing any particular alleged effect of global warming to any particular emissions by any specific person, entity, group at any particular point in time.'*¹⁷⁹

b) The causation chain of climate change impacts

To clarify the problem, it is helpful to briefly visualize the causation chain between the impugned state conduct (emitting GHG or allowing this) and the human rights impacts described earlier. In a simplified scheme, the causation chain can be seen to consist of four events, connected by a total of three links: The starting point is an activity or omission by a state that causes or allows GHG-emission (Event1). The second event is global warming (Event2). Between these two must be a causal link, which means that the emitting activity must have caused global warming (Link1). The third event is an effect of climate change, for example an extreme weather event like a heat wave (Event3). This effect must be causally

¹⁷⁴ OHCHR op cit note 16 para 70.

¹⁷⁵ IACmHR Petition No. P-1413-05 ('Inuit Petition', 16 November 2006, available at http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2006/20061116_na_decision.pdf).

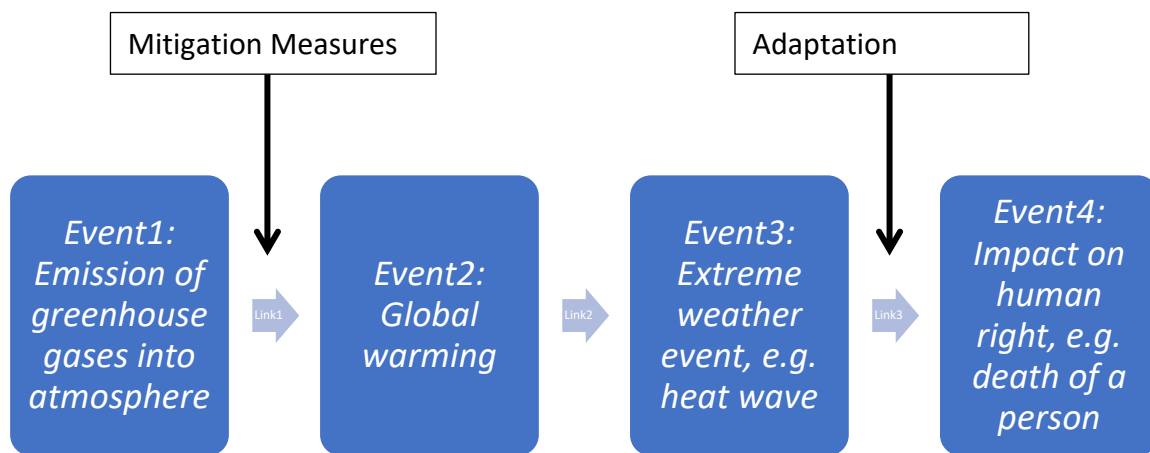
¹⁷⁶ Quirico op cit note 109 at 190.

¹⁷⁷ Although the case was a civil lawsuit, it is possible to apply the considerations on causation to the present question of human rights responsibility.

¹⁷⁸ United States District Court for the Northern District of California *Kivalina v Exxonmobil* (30 September 2009) at 15

¹⁷⁹ *Ibid* at 20.

linked to climate change, which means that climate change has caused said heat wave (Link2). Ultimately, there is an impact on a human right, for example a person loses their life (Event4). This impact must be linkable to the extreme weather event; in our example: the person has lost their life due to the heat wave (Link3).



In order for the GHG-activity to cause a human rights impact, Links 1-3 have to be satisfied. The last of these links (Link3) will often be the easiest to prove: Physicians are usually able to determine that a person died because of an extreme weather event, like a heat-wave or more so a hurricane. This is the most important reason why duties to adapt, as explained, are much more established already. In case a state fails to take a specific adaptation measure, it is generally possible to prove whether the measure would have prevented the harm to a human right and the omission hence caused it. In that case, the duty to fulfil does not depend on a government's responsibility for that threat. As Hall & Weiss put it: 'That a government did not cause a particular harm is not an excuse for its failure to act in the face of it.'¹⁸⁰ Questions of causality and attribution which are often regarded as the crux of climate change human rights litigation are therefore much easier to solve.¹⁸¹ Instead of having to prove that state

¹⁸⁰ Hall & Weiss op cit note 60 at 346; see also Knox op cit note 3 at 171 ('Human rights bodies have made clear that states should protect against foreseeable environmental impairment of human rights, whether or not the environmental harm itself violates human rights law, and whether or not the states directly cause the harm').

¹⁸¹ Peel & Osofsky op cit note 5 at 63.

(in)action lead to climate change which then lead to a specific impairment of a human right, claimants only have to prove that there was a threat and that its realisation could have been forestalled by adequate state action. In comparison to causality in the context of a duty to mitigate, a duty to adapt is located at a much later point within the causality chain, only after the most problematic causal links.

As the duty to mitigate, on the other hand, would be located much earlier on the causation chain claimants have to prove all three links. On first sight, Link1 should not present an insurmountable hurdle. There is now sufficient consensus among scientists that anthropogenic emissions are the cause of the current global warming.¹⁸² Moreover, emitted greenhouse gases mix very well globally once they reach the atmosphere.¹⁸³ The relationship between concentration of greenhouse gases in the atmosphere and global warming is a rather linear one. It can hence be assumed that every emission from any state will (sooner or later) contribute to climate change.¹⁸⁴ The consideration that other sources also contribute to global warming does not change this fact.

The problem of causation is more pronounced already in Link2: connecting a ‘specific climate change-related effect’, for example an extreme weather event to anthropogenic climate change in general. While there is no doubt that anthropogenic global warming increases both the frequency and severity of extreme weather events in general, it is hard to say with certainty that a specific, singular nature event was caused or only aggravated by anthropogenic climate change. Yet, thanks to scientific progress and especially the emerging science of probabilistic event attribution, it might soon be possible to furnish this kind of evidence.¹⁸⁵ Already in 2017, scientists were convinced that certain extreme weather events ‘could not have happened due to natural climate variability alone’.¹⁸⁶ In this case, one could hence actually establish that anthropogenic climate change did cause a certain harmful effect.

Yet, the problem becomes by all means unsolvable if one combines Link1 and Link2. To attribute a certain harmful effect to one particular state, one has to prove the ‘complex causal

¹⁸² S Maljean-Dubois ‘Climate Change Litigation’ in R Wolfrum (ed) *MPEIL* (2018) para 2.

¹⁸³ J Peel ‘Climate Change’ in A Nollkaemper & I Plakokefalos *The Practice of Shared Responsibility in International Law* (2017) at 1009-10.

¹⁸⁴ Whether the emission becomes causal for a specific climate change effect like a particular extreme weather event is another question, see *infra*.

¹⁸⁵ Minnerop *op cit* note 58 para 45.

¹⁸⁶ Maljean-Dubois *op cit* note 182 para 2; see also Knox *op cit* note 44 at 488 (with regard to impacts on the Inuit).

relationships linking historical greenhouse *gas emissions of a particular country with a specific climate change-related effect*. In this view, it is not enough to prove the causal link between a state's emission and climate change (Link1) on one hand and between climate change and an individual event on the other hand (Link2) separately (an aspect that the simplified graphic admittedly does not represent in full). Instead, one would have to prove both links *taken together*.¹⁸⁷ Effectively, claimants would be required to trace for example the CO₂ molecules of the respondent state and examine how they interact with radiation, lead to climate change and then somehow to a specific heat wave – an evidently futile exercise.

In the words of Verheyen, it is possible to proof 'general causation ... that anthropogenic emissions cause changes in radiative forcing and thus the global climate.' It is (at least currently) not possible, however, to proof 'specific causation ... that a particular impact or injury is attributable to (particular) anthropogenic emissions or to the global warming caused by them.'¹⁸⁸ So far, this problem has not been resolved satisfyingly.

This may partly be due to the incidental role that questions of causation have played in international human rights law.¹⁸⁹ Even in cases where courts confirmed a violation of human rights guarantees because of a failure to mitigate, the question of causation was not dealt with explicitly: Although the Dutch Hoge Raad (the Supreme Court in the Dutch judicial system) in *Urgenda v Netherlands* recently became the first court to find a human rights duty to mitigate, it did not discuss the described issue of causation head-on.¹⁹⁰

To overcome this issue, I will propose and try to justify the following conception of human rights obligations: Human rights law does not only require states to refrain and to keep private actors from causing actual harm. Instead, they can in certain cases be obligated to prevent and reduce the mere *risk* of harm.¹⁹¹ Although the Hoge Raad did not elaborate this approach, it can be argued that it indeed also departed from this assumption as the judgement frequently refers to the 'risk', 'danger', or 'thread' of climate change.¹⁹²

¹⁸⁷ Lewis op cit note 94 at 219: '[T]racing the causal connection between emitters and victims'.

¹⁸⁸ Verheyen *Climate Change Damage and International Law* (2005) at 257.

¹⁸⁹ V Stoyanova 'Causation between State Omission and Harm within the Framework of Positive Obligations under the European Convention on Human Rights' (2018) 18 *Human Rights Law Review* at 309.

¹⁹⁰ Hoge Raad *Netherlands v Urgenda* (20 December 2019, '*Urgenda*'), see especially paras 5.2.2 and 5.3.2.

¹⁹¹ Conversely, if they fail to do so or aggravate the risk, this would be an 'interference' prohibited under the duty to respect and to protect.

¹⁹² See especially *Urgenda* supra 190 paras 5.2.1-5.3.4.

4. Overcoming the problem of causation: An obligation to prevent and reduce risk

So far, the focus in the discussion on state responsibility has mostly been on attribution of specific harmful effects of climate change to specific states and on the question if victims have a claim to damages.¹⁹³ This requires ‘specific causation’,¹⁹⁴ for example: ‘But for the emissions by State X, would the particular heat wave have killed claimant C?’ As stated before, this test can hardly ever be satisfied.

a) Distinguishing obligations from remedies

Arguably, this focus on harm and damages has narrowed the discussion and obscured the potential for a human rights law claim to mitigation. This occurred due to a conflation of the question which obligations a state has, and the separate question which consequences follow from a breach of these obligations. The question around a duty to mitigate is not if a state has to pay compensation for climate change damages. Rather, the question is if a state is required to avert climate change damages by reducing emissions. In this context, it is important to note that the remedy of a human rights claim does not have to consist in damages or restitution but can also be mere cessation of the wrongful conduct or a declaration of unlawfulness.¹⁹⁵ Accordingly, ‘[t]he right to a remedy exists not only ex post facto but also when there is a threat of a violation.’¹⁹⁶ It is necessary to detach the question which obligations a state has from the question which consequences arise from a breach, for example if an injured person can claim damages.¹⁹⁷ If this distinction between obligation and remedy is made, it becomes clear that the content of human rights obligations is indeed broader than is sometimes assumed.

b) Obligations to prevent and reduce risks

On this basis, the following discussion will seek to establish the following argument to overcome the problem of causation: Human rights guarantees are not only infringed if state

¹⁹³ OHCHR op cit note 16; Hall & Weiss op cit note 60 at 350 (‘Causation is generally a mandatory element of establishing liability; under human rights law, a party needs to be shown to have caused the *harm* to be held liable for the remedy’, emphasis added); Lewis op cit note 94 at 220 (‘The second challenge in proving a breach of human rights based on the impacts of climate change is attributing the *harm* to the actions or omissions of a particular State’, emphasis added); M Faure & A Nollkaemper ‘International Liability’ (2007) 43 *Stanford Journal of International Law* at 157-8.

¹⁹⁴ Verheyen op cit note 188 at 257.

¹⁹⁵ G Turton ‘Causation and Risk in Negligence and Human Rights Law’ (2020) 79 *Cambridge Law Journal* at 151 (referring to Art. 41 ECHR); D Shelton ‘Tatar c Roumanie’ (2010) 104 *American Journal of International Law* 104 at 253 (‘The Court explicitly states that its function is not ‘akin to a domestic tort mechanism’ in affording compensatory damages’).

¹⁹⁶ Wewerinke-Singh op cit note 23 at 76.

¹⁹⁷ In relation to state responsibility see Wewerinke-Singh op cit note 96 at 97-8 and fn 3 (‘In the general rules on states responsibility, the occurrence of damage is not a general precondition for responsibility either, only for damages’).

(in)action causes actual damage, but already if state conduct can be seen to put the right at risk or increase existing risks.¹⁹⁸ In the context of human rights litigation, damage must not necessarily have occurred for a claim.¹⁹⁹ Admittedly, there is not yet a ‘coherent doctrine of risk prevention’²⁰⁰ that could be relied on. However, there is substantive support for an obligation on states to reduce risks in human rights case law which, moreover, is in line with fundamental principles of human rights law and climate change law.

(1) Jurisprudence and treaty body work

The duty to prevent risks is especially clear with regard to the right to life. As Trechsel put it: ‘Once life is lost, what does there remain to protect?’²⁰¹ In order to protect the right effectively, state obligations cannot only arise once the damage is done but need to prevent already the mere risk of a violation – a consideration that has already been confirmed in the case law of the ECtHR on positive duties.²⁰²

In the case of *Benzer v Turkey*, for example, the Court found that the wounding of the (surviving) applicants in a bombing attack constitutes a violation of the right of life under Art. 2 ECHR in its ‘substantive aspect’, because the attack ‘which caused these three applicants’ injuries, was so violent and caused the indiscriminate deaths of so many people that these three applicants’ fortuitous survival does not mean that their lives had not been *put at risk*.’²⁰³ In *Makaratzis*, the ECtHR found a violation of the right to life, not because the claimant had died (he survived) but for the fact that the ‘Greek authorities had not, at the relevant time, done all that could be reasonably expected of them to afford to citizens ... the level of safeguards required and to avoid *real and immediate risk to life* which they knew was liable to arise’.²⁰⁴ These examples show that a mere *risk* is enough to trigger state obligations. It is fair to conclude that ‘the Court’s jurisprudence is not necessarily restricted to cases where

¹⁹⁸ In relation to ECtHR-jurisprudence: Turton op cit note 195 at 156 (although her assessment differs for cases in the healthcare context, see *ibid* at 172-5).

¹⁹⁹ *Ibid* at 150-1.

²⁰⁰ F Ebert & R Sijniensky ‘Preventing Violations of the Right to Life in the European and the Inter-American Human Rights Law System’ (2015) 15 Human Rights Law Review at 368 (referring to the European human rights system).

²⁰¹ Quoted after *ibid* at 343.

²⁰² While positive duties in the ECHR relate mostly to the duty to protect and fulfil in the above-described system of the ICESCR-Committee, they can also have impacts for the duty to respect: Stoyanova op cit note 189 at 322.

²⁰³ ECtHR *Benzer v Turkey* (12 November 2013) paras 143, 185 (emphasis added).

²⁰⁴ ECtHR *Makaratzis v Greece* (20 December 2004) para 71 (emphasis added).

the material harm has manifested itself but also to situations where there is a risk of exposure to such harm.²⁰⁵

This finding alone, however, is not enough to support a duty to mitigate climate change. A second crucial question is what the content of that obligation is. More specifically: Are states required only to ‘avoid’ risks or also to ‘reduce’ them? This is important because, as individual states are only responsible for a fraction of total GHG-emissions, no single state can by itself ‘avoid’ climate change impacts by cutting emissions. It can at most reduce impacts. As ‘[a] State will only be held liable for a failure to take effective protective measures, not for a failure to take ineffective ones’,²⁰⁶ a duty to mitigate is only justifiable under this jurisprudence if states have not only a duty to completely prevent but also to *reduce* risks.

On first sight, this seems doubtful. Especially, the most prominent test for positive duties to address risks in *Osman v UK* seems to require states only to take measures that have a chance of avoiding the risk altogether:

*‘[T]he authorities knew or ought to have known at the time of the existence of a real and immediate risk to the life of an identified individual or individuals from the criminal acts of a third party and that they failed to take measures within the scope of their powers which, judged reasonably, might have been expected to avoid that risk.’*²⁰⁷

While here, too, the ECtHR accepts that ‘a real and immediate risk’ is sufficient to trigger a state obligation, the required measures must ‘have been expected to avoid that risk’. The word ‘avoid’ seems to indicate that the claimant must still prove that the demanded state conduct would have with ‘reasonable’ certainty kept the risk from materializing, thus effectively demanding a causal link to the actual injury, not the risk of such. Notably, the test does not say the measures ‘might have been expected to *reduce* that risk’.²⁰⁸

²⁰⁵ O Pedersen ‘The European Court of Human Rights and International Environmental Law’ in J Knox. & R Pejan (eds) *The Human Right to a Healthy Environment* (2018) at 88.

²⁰⁶ Lavrysen op cit note 170 at 716.

²⁰⁷ ECtHR *Osman v UK* (28 October 1998) para 116. As is evident, the case was not concerned with environmental risks. Regardless, it helps establish that mere risks are sufficient to trigger right to life obligations.

²⁰⁸ See Lavrysen op cit note 170 at 708.

Yet, even the *Osman*-test requires only that the measures ‘*might have been expected* to avoid that risk’ (emphasis added). This leaves leeway for varying degrees of probability. In the context of climate change risks, there will often be a (at least small) chance that, had the state reduced its emissions, global warming would have been less pronounced and in turn a specific impact less probable or less severe.

Stoyanova moreover constates that ‘[t]he ‘but for’ test, which means that but for the state failure the harm would not have happened, has been explicitly rejected by the ECtHR.’²⁰⁹ This assessment is based on the case of *E v UK* which concerned the prohibition of torture under Art. 3 ECHR:

*‘The test under article 3 however does not require it to be shown that ‘but for’ the failing or omission of the public authority ill-treatment would not have happened. A failure to take reasonably available measures which could have had a real prospect of altering the outcome or mitigating the harm is sufficient to engage the responsibility of the state.’*²¹⁰

This is essentially equal to a duty to reduce risk. Similarly, in *Salkhov and Islyamova v Ukraine*, the court found a violation of Art. 2 holding that ‘[w]hether or not the authorities’ efforts *could in principle have averted the fatal outcome* in the present case *is not decisive* for this conclusion. *What matters* for the Court is *whether they did everything reasonably possible* in the circumstances, in good faith and in a timely manner, to try to save the first applicant’s life.’²¹¹

The ruling in *E v United Kingdom* can further be understood to apply the same standard to a violation of Art. 8 ECHR.²¹² The UK Supreme Court has accordingly interpreted the ECtHR-jurisprudence to assume violations where ‘loss of a substantial chance of avoiding harm’ has occurred.²¹³ Pedersen comes to a similar conclusion, stating that under ECtHR case law ‘citizens have a right to expect the state to take relevant and proportionate measures to *minimise* any risks causing serious danger to people and the environment’.²¹⁴

²⁰⁹ Stoyanova op cit note 189 at 316. It seems more plausible, however, that indeed merely the object of the test shifts, see infra section IV.4.d).

²¹⁰ ECtHR *E v UK* (26 November 2020) para 99.

²¹¹ ECtHR *Salakhov and Islyamova v Ukraine* (14 March 2013) para 181.

²¹² *E v United Kingdom* supra note 210 para 105 (‘no separate issues arise’).

²¹³ Turton op cit note 195 at 148; similar Lavrysen op cit note 170 at 717.

²¹⁴ O Pedersen ‘The Janus-Head of Human Rights and Climate Change’ (2011) *80 Nordic Journal of International Law* at 423 (emphasis added).

The most important case for present purposes, however, is *Tatar c Roumanie* which dealt with the right to privacy and family life under Art. 8 ECHR. The applicants in this case were a father and his son who lived close to a gold-mine that used sodium-cyanide. They alleged that the use of this chemical threatened their health and had already aggravated the son's pre-existing asthma. In spite of the fact that the applicants were unable to indeed prove the causal link between the use of the chemicals and the worsening of the asthma,²¹⁵ the court held that:

'It [the Court] assumes nonetheless, that despite the lack of causal probability in the present case, the existence of a serious and substantial risk to the applicants' health and well-being imposed on the state the positive duty to adopt reasonable and adequate measures capable of protecting the rights and interests [of the applicants]'.²¹⁶

The Court explicitly states that specific causation between the state omission and the impact on the applicant's health could not be proven. Instead, the risk alone was sufficient to impose duties on the state to take protective measures.²¹⁷ True, the court eventually based its finding of a violation of Art. 8 to a significant part on the breach of procedural duties.²¹⁸ It is fair to assume though, that the substantive shortcomings would have been sufficient to find a violation:

'The terms of operation [for the gold mine] that the Romanian authorities imposed in this case proved insufficient to prevent a situation with consequences for the environment and the well-being of the population. The Court concludes that the Romanian authorities failed in their duty to sufficiently evaluate in advance the potential risks of the activity in question and to take adequate measures capable to protect the rights of the concerned'.²¹⁹

However, while the Strasburg Court found a violation of Art. 8 ECHR, it did not see itself in a position to award damages:

²¹⁵ ECtHR *Tatar c Roumanie* (27 January 2009, apparently published only in French) para 106.

²¹⁶ Ibid para 107 (translation by author).

²¹⁷ Shelton op cit 195 note at 252.

²¹⁸ For example, *Tatar c Roumanie* supra note 215 para 113.

²¹⁹ Ibid para 112 (emphasis added, citation omitted, translation by author); similar D Shelton 'Legitimate and necessary' (2015) 6 *Journal of Human Rights and the Environment* at 147. The assessment by Lavrysen op cit note 170 at 717 that 'the majority only found a procedural violation' must therefore be rejected.

*‘With regard to the material prejudice alleged by the second applicant [the son with asthma], the Court agrees with the view of the Government that there was no causal link between the violation of the Convention and the alleged prejudice’.*²²⁰

This supports the earlier statement that the question if a state has breached its duty should be distinguished from the question if the claimant can demand reparation or restitution for damages.

Tatar c Roumanie can be seen as substantial support for the argument made here: Not only did the case concern environmental impacts. More importantly, the Court expressly stated that the ‘existence of a serious and substantial risk’ was enough to trigger state obligations. Although the applicants could not prove that the breach of duty had indeed caused harm or that the demanded actions would have even prevented a worsening of the son’s asthma, the Romanian government was held responsible for not having taken measures.²²¹ This seems very comparable to the problem of causation in climate change cases: In both cases, a private actor creates a risk for the well-being of people (risk of asthma / risk of pernicious climate change effects). In both cases, it cannot, however, be proven that the behaviour indeed did cause the harm (aggravation of asthma / causing a specific climate change impact) – specific causation cannot be established. In *Tatar*, the ECtHR held that a causal link between the private behaviour and the specific effect is not required. Instead, the *potential* causal link or general causation was sufficient. There is no apparent reason why causation of risk should not be sufficient then with regards to climate change, as well.

So far, this ‘risk-based’ approach to human rights obligations has only been demonstrated under the European system. ECtHR case law carries significant authority for the interpretation of other human rights treaties, however. This is demonstrated by the fact that the IACtHR has adopted the ECtHR approach to positive obligations into its own jurisprudence.²²² Moreover, already in its very first case, the IACtHR had held that the right to life in Art. 4(1) ACHR and Art. 1(1) ACHR

²²⁰ *Tatar c Roumanie* supra note 215 para 131.

²²¹ Shelton op cit note 195 at 252.

²²² Ebert & Sijiensky op cit note 200 at 352.

*'impl[ies] an obligation on the part of States Parties to take reasonable steps to prevent situations that could result in the violation of that right.'*²²³

Recently, the IACtHR in its *Advisory Opinion OC-17/23* on environment and human rights stated that

*'States, taking into account the existing level of risk, must regulate activities that could cause significant environmental damage in a way that reduces any threat to the rights to life and to personal integrity.'*²²⁴

On the international level, the HRC clarified for Art. 6 ICCPR:

*'The obligation of States parties to respect and ensure the right to life extends to reasonably foreseeable threats and life-threatening situations that can result in loss of life. States parties may be in violation of article 6 even if such threats and situations do not result in loss of life.'*²²⁵

What is clear from this quote is that the right to life is not only violated when the state conduct indeed led to an impact (loss of life) but also when it led to the *risk* of loss of life. This means that in the context of causation, claimants only have to prove that state conduct created a risk to the right to life – an approach that is in line with the general principle that Art. 6 ICCPR must not be interpreted narrowly.²²⁶

It must be admitted that this compilation of case law and treaty body-work is neither exhaustive nor does it represent a 'coherent doctrine'.²²⁷ Yet, it demonstrates that the reduction of risk does already exist as an obligation under human rights law.

(2) The principles of effet utile, due diligence and precaution

This conclusion is further corroborated by three fundamental principles of public international law which are of significance also for human rights law: The principles of effet utile, due diligence and precaution.

²²³ IACtHR *Velásquez-Rodríguez v Honduras* (29 July 1988) para 188.

²²⁴ IACtHR *Advisory Opinion OC-17/23* (15 November 2017) para 149 (emphasis added).

²²⁵ HRC *GC No. 36* para 7 (emphasis added).

²²⁶ *Ibid* para 3.

²²⁷ Ebert & Sinjensky *op cit* note 200 at 368.

The basis of the *effet utile*-principle can be seen in Art. 31(1) of the Vienna Convention on the Law of Treaties.²²⁸ This norm which stresses a teleological interpretation ('in the light of its [the treaty's] object and purpose') is especially important for human rights conventions.²²⁹ It requires that treaties be interpreted in a way that enables 'effective' realisation of their purposes. In the context of human rights guarantees, foremost but not exclusively the right to life, one can argue that effective protection can only be achieved if state obligations intervene early and include the prevention of risks which might lead to violations.

As has already been mentioned, the due diligence principle has been employed by the IACtHR in relation to risks created by private actors. From the perspective of a state, potential pernicious conduct by privates is always no more than a risk because there can be no certainty when and where a private actor will violate a human right. This is corroborated by the fact that due diligence is generally seen as a duty of conduct, not of result.²³⁰ This means that it is not necessarily decisive if the state action or omissions did indeed cause the outcome. The duty can already be violated if the state did not take appropriate measures. In consequence, the mere existence of the due diligence duty indicates that states have an obligation to reduce the risk of harm, even if the concrete harm might be uncertain.²³¹ In the context of GHG-emissions, this is even more true, as there is indeed certainty that the risks will sooner or later materialise – the only uncertainty is when and where.

Lastly, the precautionary principle also provides an argument for the prevention of mere risks.²³² Although there are several formulations of the principle,²³³ the most prominent version can be found in Principle 15 of the Rio Declaration. It reads:

'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty

²²⁸ Entry into force 27 January 1980, currently 116 ratifications.

²²⁹ M Herdegen 'Interpretation in International Law' in R Wolfrum (ed) *MPEIL* (2013) para 30.

²³⁰ T Koivurova 'Due Diligence' in R Wolfrum (ed) *MPEIL* (2010) para 8.

²³¹ In relation to climate change see *ibid* para 18 who assumes that 'far-reaching measures' based on due diligence currently are 'more *de lege ferenda*'.

²³² On the similar prevention principle in international environmental law see *OC-17/23 supra* note 224 para 127 *et seq.*

²³³ M Schröder 'Precautionary Principle' in R Wolfrum (ed) *MPEIL* (2014) para 3.

*shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*²³⁴

As is evident from the first sentence of this quote, the principal field of application of the precautionary principle is environmental protection.²³⁵ Despite these roots it has increasingly found its way into other areas of law, including human rights issues. In the European context, the European Court of Justice ('ECJ') has essentially applied a variant of the precautionary principle to human health, holding that '[w]here there is uncertainty as to the existence or extent of risks to human health, the institutions [of the European Union] may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent.'²³⁶ Relying on this jurisprudence, the ECtHR in *Tatar* explicitly counted the precautionary principle as part of the 'pertinent international law and practice'²³⁷ and used it in finding a violation of the right to health as contained in Art. 8(1) ECHR.²³⁸ This demonstrates that despite its origins in environmental law, the precautionary principle or variants thereof can apply to human rights law, at least in the context of environmental risks.²³⁹

As quoted, the principle requires states not to use 'lack of full scientific certainty' as 'a reason for postponing cost-effective measures' in the face of 'threats of serious or irreversible damage'.²⁴⁰ Applying this to human rights law and climate change, one can argue that states should not deny an obligation to mitigate and to reduce risks just because there is no 'full scientific certainty' as to when and where these risks will materialize and cause actual harm. Rather, in light of the possible 'serious or irreversible damage' through climate change, they are required to already take preventive measures²⁴¹ which can include measures to reduce risks.

(3) Summary

The referenced case law, supported by principles of international human rights and environmental law, has shown that it is not necessary for a violation of human rights norms

²³⁴ Principle 15 Rio Declaration; most commentators see the precautionary principle as part of customary international law now, though considerable debate remains, *ibid* paras 16-20.

²³⁵ See *ibid* paras 8-12.

²³⁶ ECJ *UK v Commission C-180/96* (5 May 1998) para 99.

²³⁷ *Tatar* *supra* note 215 para 69.

²³⁸ *Ibid* para 120; Shelton *op cit* note 195 at 249.

²³⁹ Schröder *op cit* note 233 para 21; Quirico *op cit* note 111 at 191.

²⁴⁰ Principle 15 Rio Declaration.

²⁴¹ *OC-17/23* *supra* note 224 para 180.

that actual damage or loss materializes. While it is too early to speak of ‘a coherent doctrine of risk prevention’²⁴², there is substantive support to say that in certain cases states are obliged to reduce mere risks. In contrast to *Kivalina*, it is thus not required to establish the link between particular emissions and ‘any particular alleged effect of global warming’. It is sufficient to prove that the *risk* of the effect in question has increased due to the emissions.

To be sure, this does not mean that causation is irrelevant. Only the *object* of causation has shifted: Instead of proving that the state emission or failure to regulate emission caused harm, claimants now have to prove that it caused the *risk* of harm. This is by no means at odds with established human rights law. It is merely a more extensive – but justified – interpretation of ‘the content of human rights obligations’.²⁴³ Evidently, it constitutes a significantly lower threshold, though.

This lower standard is ‘consistent with the aims of the ECHR [and human rights law in general] which are the promotion and protection of human rights standards and the rule of law, rather than compensation for damage upon proof of loss’.²⁴⁴ Consequently, there is a generic obligation on states to prevent and reduce risks to human rights, by not creating risks themselves (duty to respect) and by preventing private actors from creating risks (duty to protect).

c) Climate change effects as risks

Naturally it would be an overexpansion of human rights obligations, though, if every risk created or not prevented by a state constituted a violation. Now that it has been established that states can in certain circumstances be under a duty to prevent the mere risk of harm, it is necessary to enquire whether the risks associated with climate change fall into this category. Only if the climate related risks meet certain criteria can there be a duty to prevent or mitigate them.

Applying the influential test in *Osman*, one might doubt if climate change risks can indeed meet the requirements. The test is quite restrictive, requiring not only ‘a real and immediate risk’ but also ‘to the life of an identified individual or individuals’.²⁴⁵ In the context of climate

²⁴² Ebert & Sijniensky op cit note 200 at 368.

²⁴³ Wewerinke-Singh op cit note 96 at 109; similar Lavrysen op cit note 170 at 717 (determination of ‘sanctioned conduct’).

²⁴⁴ Turton op cit note 195 at 153.

²⁴⁵ *Osman* supra note 207 para 116.

change this bar might seem difficult to clear. Climate change risks are not always clearly ‘immediate’ and usually affect a large number of people or even society at large, so that it is difficult to identify the victims. However, subsequent case law has relaxed these requirements considerably. As the Court in *Urgenda* notes, an ‘immediate’ risk does not have to occur in ‘a short period of time’ but the risk can also only materialize at some point in the future.²⁴⁶ The requirement regarding ‘identified individual(s)’ has equally been relaxed so that dangers to society at large can also trigger state obligations.²⁴⁷ One can thus argue that climate change risks trigger a state duty to prevent or mitigate them. Nevertheless it seems reasonable that potential claimants must nonetheless demonstrate concrete risks such as the risk of flooding or heatwaves in their area and cannot solely rely on the general, abstract dangers of climate change. While the real meaning of ‘real and immediate’ has never been clarified,²⁴⁸ one can interpret the word ‘real’ to refer to concrete, not abstract risks.²⁴⁹ This is also relevant for the question of standing which only people indeed at risk (for example living in a coastal area that is in danger of floods) can have.

In this context, it is further important to keep in mind that the *Osman*-test and most jurisprudence around risks was developed with regard to the right to life, the prohibition of torture and the right to privacy (which includes bodily integrity). This implies that the risks in question need to be significant. As explained, climate change does indeed have impacts on the right to life.²⁵⁰ It does not seem entirely unreasonable, moreover, to transfer this jurisprudence to the other rights affected by climate change. Occasionally, the ECtHR and the IACtHR have hinted in this direction.²⁵¹ Many of the rights listed earlier are moreover inextricably linked to the right of life and indeed conditions for its enjoyment (rights to the highest attainable standard of health, adequate food, water, adequate housing).²⁵² Ultimately, it would be in line with the general principles of universality and indivisibility of human rights to, in principle, apply the obligation of risk-prevention to all rights (although with certain adjustments based on the nature and severity of the risk). In this case, varying degrees of severity and limitations

²⁴⁶ *Urgenda* supra note 190 para 5.2.2; see also Ebert & Sijniensky op cit note 200 at 358-360.

²⁴⁷ *Urgenda* supra note 190 para 5.3.2; Ebert & Sijniensky op cit note 200 at 360-2.

²⁴⁸ Stoyanova op cit note 189 at 339.

²⁴⁹ Not too different ibid at 339 who understands ‘real’ to mean that the risk must be ‘objectively given and not merely speculative’.

²⁵⁰ Wewerinke-Singh op cit note 96 at 116.

²⁵¹ Ebert & Sijniensky op cit note 200 footnotes 33 and 80.

²⁵² Wewerinke-Singh op cit note 23 at 78

such as progressive realisation could unproblematically be accounted for when determining which specific measures are required.²⁵³

This assessment is further supported by the fact that the ECtHR has in the past applied the *Osman*-test flexibly and extended the risks that fall under it.²⁵⁴ As many scholars have noted, these are not hard requirements. According to Stoyanova ‘[n]o hard-edged legal tests apply to cases invoking positive obligations under the ECHR’²⁵⁵ and the ‘limitative function’ of the *Osman*-test is ‘not of general applicability’.²⁵⁶ To alleviate this vagueness, the literature on positive duties under the ECHR has established especially the importance of state knowledge and foreseeability to determine state duties.²⁵⁷

According to Lavrysen, state knowledge is a ‘precondition for the existence of positive duties’.²⁵⁸ This criterium is definitely fulfilled as regards climate change harms. In light of the host of studies describing the risks of climate change and especially the work of the IPCC and the UNFCCC, all states can be assumed to have knowledge of the risks of climate change by now.²⁵⁹ True enough, the details are in many cases still murky. Yet, in light of the precautionary principle, this cannot be an excuse. More importantly, this is not only true for climate change in general, but also for the emissions of each state in particular: As mentioned, one can be almost sure that each emission will sooner or later contribute to a global warming-related effect; the only uncertainty is when and where. This high certainty is a strong argument for a duty to prevent and reduce climate change risks: ‘[T]he more predictable a hazard, the greater the obligation to protect against it.’²⁶⁰

In conclusion, thanks to growing scientific research, certain risks for the people in certain areas can now be seen as ‘reasonably foreseeable’²⁶¹ and even ‘real and immediate’. In consequence, the (respective)²⁶² state has a duty to prevent and reduce these risks.

²⁵³ See *infra* section IV.5.a).

²⁵⁴ Ebert & Sijniensky *op cit* note 200 at 348-51 and 353-55 (referring to the IACtHR).

²⁵⁵ Stoyanova *op cit* note 189 at 345

²⁵⁶ *Ibid* at 341.

²⁵⁷ *Ibid* at 314-16; Ebert & Sijniensky *op cit* note 200 at 358-360. The question of reasonableness shall be discussed under the content of the duty to mitigate.

²⁵⁸ Lavrysen *op cit* note 170 at 712.

²⁵⁹ Similar Wewerinke-Singh *op cit* note 23 at 82.

²⁶⁰ Stoyanova *op cit* note 189 at 324.

²⁶¹ Wewerinke-Singh *op cit* note 96 at 116.

²⁶² On the question of extraterritorial application see *infra* section V.

d) Proving causation between emissions and risks

As mentioned, this risk-based approach does not entirely remove the requirement of causation but merely shift its object. For the duty to mitigate to exist, one must prove causation between these risks and the behaviour to be regulated: Emissions of a state (duty to respect) or its failure to regulate emissions by private actors (duty to protect). Only if the risks are indeed caused or exacerbated by emissions can mitigation efforts be seen as an ‘effective measure’²⁶³ to avoid or reduce these risks.

It is hence necessary to prove that the emissions of a particular state indeed increased the risk of a climate change event that constituted the ‘real risk’ to a human right, for example a heatwave or a flooding. According to the above argument it is not necessary, however, to prove that mitigation by the state would have eliminated the risk altogether. It is only necessary to establish that these ‘measures ... could have had a real prospect of altering the outcome or *mitigating* the harm’.²⁶⁴ Put differently, would mitigation efforts by state X actually have decreased the probability or severity of the event?

In dealing with this question the benefit of the risk-centred approach to human rights and to a duty to mitigate becomes clear: While it is true that due to the countless sources of GHG, a specific impact can never be traced to the emissions of a particular state, there can be little doubt that they have nonetheless increased the risk of that impact, both regarding its probability and scale. Every additional ton of GHG in the atmosphere will interact with radiation and thus lead to an ever so slightly increase in global warming. Every increase in global temperature, even just a fraction of a degree centigrade, in turn increases the risk of negative impacts. As the Dutch Supreme Court put it: ‘each reduction of greenhouse gas emissions has a positive effect on combating dangerous climate change ... no reduction is negligible.’²⁶⁵

This link is especially clear when it comes to slow onsetting events such as rise of sea-levels and the related risk of small island states to become completely submerged.²⁶⁶ Here, the relation between global warming, the melting of ice and the consequent rise of median sea-levels is especially obvious. But also with most other human rights impacts it is fair to assume

²⁶³ Lavrysen op cit note 170 at 715-16.

²⁶⁴ *E. v United Kingdom* supra note 210, para 99 (emphasis added).

²⁶⁵ *Urgenda* supra note 190 para 5.7.8.

²⁶⁶ Quirico op cit note 111 at 190; Maljean-Dubois op cit note 182 para 2.

that every reduction of emissions would mean a reduction of risk by diminishing the probability and scale of impacts. It can therefore be concluded that in most instances the causality between emissions and risks can be established.

e) Separate and individual vs joint and several liability

In this context it is important to note that the fact that an individual state will in most cases only be responsible for a minimal fraction of total (anthropogenic) GHG emissions limits its responsibility in no way.²⁶⁷ This is clear from Art. 47 ILC Articles which assumes that it is possible for ‘several states’ to be ‘responsible for the same international wrongful act’. This article as part of the general rules of state responsibility has importance for human rights law as well.²⁶⁸ The same is true for certain ICJ judgements in which states were found liable, even though other states had also played a role in causing the damage.²⁶⁹

A problem arises in relation to the issue of compensation for actual harm.²⁷⁰ Here, the claimant would have to prove specific causation between the respondent state’s emissions and her damage. Moreover, she can only claim the share of her damage that the state is responsible for. If states are liable only separately and individually, the claimant has to prove every state’s share of the caused damage and sue accordingly. This renders the causation problem even more difficult. In light of this problem, some scholars advocate to apply the principle of joint and several liability, whereby a claimant could sue any of the states for the full amount and it would be the task of the sued state to get reimbursements from the other states for their share.²⁷¹ If such a principle does indeed exist in international (human rights) law is dubious.²⁷² Regardless, this issue around compensation does not change the fact that as far as primary responsibility and therefore the duty to mitigate is concerned – each state is individually liable to cease emissions that violate human rights.

f) Burden of proof

A further element that can facilitate a duty to mitigate is an adapted proof requirement. Some scholars suggest that in light of the precautionary principle and the principle of *effet utile*,²⁷³ the burden of proof might be lower for claimants – or even reversed. According to

²⁶⁷ Ibid para 33; Wewerinke-Singh op cit note 96 at 103-4.

²⁶⁸ Ibid at 2.

²⁶⁹ Ibid at 8.

²⁷⁰ Maljean-Dubios op cit note 182 para 33.

²⁷¹ Ibid para 34

²⁷² See the discussion at Wewerinke-Singh op cit note 96 at 103-4; sceptical Quirico op cit note 111 at 200.

²⁷³ Wewerinke-Singh op cit note 23 at 82-3.

Wewerinke-Singh, '[t]his means that even the *absence* of evidence could sometimes substantiate or consolidate a State responsibility claim connected with the human rights implications of climate change.'²⁷⁴ In this most radical form, the state would ultimately have to prove that GHG it emits or permits to be emitted do *not* cause any relevant damage. Arguably, this task is just as impossible as its counterpart and seems too burdensome on states and the potential for development.

A mere lowering of the burden of proof, on the other hand, so that claimants only have to prove a 'reasonable degree of certainty'²⁷⁵ (not full certainty) of damage, is very much in line with the risk-centred approach which also requires litigants to demonstrate the probability (the risk) of damage occurring.

g) Summary

In conclusion, the issue of causation which is often seen as the Achilles Heel of a duty to mitigate under human rights law can indeed be overcome: By focusing on state obligations not to create or aggravate risks for human rights and to regulate risk-creating behaviour by private actors, one can justify that a general duty to reduce GHG-emissions exists under human rights law. Against this backdrop, there is no doubt anymore that every emission of GHG contributes to global warming and that every increase in global warming entails greater risk to a great number of human rights. Accordingly, states are under a duty to reduce emissions (their own and by private actors on their territory) – a duty to mitigate.

5. The content and scope of a duty to mitigate

So far, however, not much has been said about the specific content of this duty. What mitigation efforts exactly can, and must governments make?

Contrary to other threats to human rights and most of the case law discussed above, there is not one specific measure a state must or even can take in order to avert the threat. Alone by itself, no one singular state can avert the threat. While this, as argued, does not preclude state responsibility, it makes determining the precise content of the duty more difficult: Every reduction in emissions diminishes the threat to human rights but might at the same time restrict other interests. Not only is there, hence, no one clear measure that courts can order but determining the mitigation efforts requires a complex, polycentric balancing of highly

²⁷⁴ Wewerinke-Singh op cit note 96 at 104 (emphasis in original).

²⁷⁵ Wewerinke-Singh op cit note 23 at 83.

political issues. In adjudicating cases of a duty to mitigate, courts will have to consider restrictions to their powers and limitations within human rights law: International courts have to respect a state's 'margin of appreciation',²⁷⁶ while national courts have to consider separation of powers and the prerogatives of the legislative and executive branches.²⁷⁷

This is why the court cannot dictate the state what mitigation efforts to take but must rather decide whether the government's policies are sufficient. For this exercise it would be helpful to first establish the general standard which state mitigation efforts must meet.

a) Standard of 'reasonableness'

As mentioned, every ton of GHG-emissions increases the risk of harmful climate change impacts. Clearly, states cannot be required to stall all emissions, though. The ECtHR held that positive duties as referred above must be interpreted 'not to impose an excessive burden on the authorities'.²⁷⁸ Instead, the ECtHR has frequently confirmed that states must take only measures that are 'adequate and reasonable'²⁷⁹ or must do 'all that could be *reasonably* expected of' them.²⁸⁰

This standard of 'reasonableness' is an important tool for the ECtHR to delimit the scope of positive obligations.²⁸¹ In doing so, it includes various aspects in its assessment: 'When the Court refers to reasonableness in the context of positive obligations, it has in mind public interests – including public policy considerations, budgetary concerns and the rights of others – as factors that might compete with the assistance and protection of interests of the particular applicant.'²⁸² It is therefore fair to say that the reasonableness-test is essentially an exercise in balancing rights, interests and resources as is common in all human rights legal systems.²⁸³ This is important because the above-mentioned standard has been developed with regard to the right of life and therefore goes quite far ('all that could be reasonably expected'). If the

²⁷⁶ H Keller & R Walther 'Balancing Test: United Nations Human Rights Bodies' in R Wolfrum (ed) *MPEIL* (2018) para 59 (on UN treaty bodies).

²⁷⁷ L Burgers 'Should Judges Make Climate Change Law?' (2020) 9 *Transnational Environmental Law* at 57 et seq; A Savaresi 'Climate Change and Human Right' in S Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (2018) at 32.

²⁷⁸ See for example ECtHR *O'Keeffe v Ireland* (28 January 2014) para 144.

²⁷⁹ *Tatar* supra note 215 para 88.

²⁸⁰ *Osman* supra note 207 para 116 (emphasis added).

²⁸¹ Lavrysen op cit note 170 at 715; Ebert & Sijniensky op cit note 200 at 367.

²⁸² Stoyanova op cit note 189 at 338; similar Ebert & Sijniensky op cit note 200 at 367 who moreover note that the criterion leaves room for the margin of appreciation doctrine.

²⁸³ Lavrysen op cit note 170 at 717: 'The scope of positive obligations, governed by the open-ended fair balance test that leaves room for fluid notions like reasonableness and effectiveness'; generally Shelton op cit note 219 at 155.

duty to prevent risk is to be applied to other rights with less pronounced status, this might be excessive. In seeing the ‘reasonableness’-test as a form of balancing-exercise, it is possible to account for the possibly different ‘statuses’ of rights or limitations such as progressive realisation.²⁸⁴ Moreover, this standard might also allow to incorporate questions of climate justice, for example by considering the principle of common but differentiated responsibilities (“CBDR”) as enshrined in the major climate change agreements.²⁸⁵

An advantage of this approach certainly is its flexibility; a disadvantage is its vagueness. It can nonetheless be operationalised. As Savaresi noted:

*‘While states generally enjoy a certain discretion to strike a balance between legitimate societal interests, Special Rapporteur Knox has pointed out that the balance struck cannot be “unreasonable or result in unjustified, foreseeable infringements of human rights”.*²⁸⁶

The court in *Urgenda* equally held that courts ‘may determine whether the measures taken by a state are ‘reasonable and suitable’ or ‘too little’.²⁸⁷ It is important to note, however, that courts must not replace the result of the balancing exercise by the state with their own decision but can only decide whether the government’s finding is (still) tenable or not. In consequence, courts may only strike down policies which manifestly cannot be justified as a reasonable balance.

It appears possible to apply this test to individual state decisions regarding particular projects or programs, as well as to the general policy regarding overall emissions. This can help to clarify the duty to mitigate and make its content more concrete.

b) Individual projects and programs

In relation to individual state projects and programs, this standard of reasonableness can require the government to refrain from a project (duty to respect) or, in the case of a private project, to prohibit it (duty to protect). This can lead to a procedural as well as substantive obligations.

²⁸⁴ In light of the universality and indivisibility of human rights it is potentially difficult to accord higher value to some rights than others. This is however in line with statements by the HRC and other bodies which see the right to life as a ‘supreme right’, HRC *GC No. 36* para 2.

²⁸⁵ Art. 2(2) Paris Agreement; Art. 3(1) UNFCCC; Wewerinke-Singh op cit note 23 at 80.

²⁸⁶ A Savaresi ‘Human Rights and Climate Change’ (available at <https://ssrn.com/abstract=3327981>) at 4 (footnotes omitted).

²⁸⁷ *Urgenda* supra note 190 paras 5.3.3. and 6.3.

A substantive obligation would for example comprise a duty to cancel ‘unreasonably’ GHG-intensive projects altogether, for example to stop subsidies or not grant permits.²⁸⁸ This seems difficult with regard to state discretion and principles of separation of power. While prescribing a certain goal of reduction leaves the state the freedom to decide how to accomplish this goal, a duty to abandon or prohibit a specific project leaves very little room for policy decisions. It does not seem impossible, however, that courts could strike down projects whose GHG-output is evidently and grossly out of balance to expected benefits.²⁸⁹ Courts could also require certain measures that can “reasonably” be expected to combat climate change. The Colombian Supreme Court, for example, in *Generaciones Futuras v Ministerio de Ambiente y Desarrollo Sostenible* ordered the Colombian government to adopt a plan against deforestation.²⁹⁰

As regards individual projects, the duty to mitigate might nonetheless be more effective in the form of a procedural obligation. Under such an obligation the state will have to assess the GHG-emissions not necessarily of all, but of major projects and compare their impact on global warming to the expected benefits. It is a well-established instrument of international environmental law that states have to conduct general environmental impact assessments (‘EIA’) of planned projects. The obligation is acknowledged for example in the Rio-Declaration²⁹¹ and has been affirmed by the ICJ as a ‘requirement under general international law’ in relations between states.²⁹² Albeit, the focus of EIAs has traditionally been elements that are more immediately harmful than GHG. While the possibility of applying this instrument to GHG emissions as well as potential benefits have already been outlined,²⁹³ this practice is not yet broadly implemented.²⁹⁴ Moreover, it has not been acknowledged as a duty under human rights law.²⁹⁵ As part of the duty to mitigate as discussed here, the pressure would rise on states to conduct EIAs of ‘activities that are likely to have significant GHG impacts – such as programmatic decisions about fossil fuel development, large fossil fuel-

²⁸⁸ Wewerinkhe-Singh op cit note 96 at 100.

²⁸⁹ See also Expert Group on Global Climate Obligations *Oslo Principles* (1 March 2015), Principle 8.

²⁹⁰ Corte Suprema de Justicia de Colombia *Generaciones Futuras v Minambiente* (5 April 2018) at 47-9.

²⁹¹ *Oslo Principles* Principle 17.

²⁹² *Pulp Mill* supra 141 para 204.

²⁹³ For example C Christopher ‘The Use of Environmental Impact Assessment in Addressing Climate Change’ (2008) 9 *Vermont Journal of Environmental Law* at 605-8.

²⁹⁴ *Ibid* at 551.

²⁹⁵ UNEP op cit note 154 at 16

fired power plants, and fuel economy standards'.²⁹⁶ This duty of conduct would not only facilitate mitigation but also establish standing for claimants whose rights are infringed when the government neglects to execute an EIA.

That procedural duties might be more adequate and effective than substantive obligations with regard to specific projects is also evidenced by the recent decision of the UK Court of Appeal in *R v Secretary of State of Transport*. While the court was hesitant to decide on the permissibility of a third airport-runway and related emissions, it stopped the project because the state had not taken into account the Paris Agreement.²⁹⁷ Admittedly, the case concerned statutory, rather than human rights duties, but it does show the value of a procedural obligation as proposed here.

c) Reduction of overall emissions

More important is the effect of the duty to mitigate with regard to the total GHG-emissions by a state. Obviously, this aspect is more consequential by far than any singular project. The crucial question is if it is possible to determine the goal that mitigation efforts must attain. In other words: Which degree of emission reduction is 'reasonable' to expect from the state? Is it possible to establish a certain percentage of reduction?²⁹⁸

Evidently, this question confronts courts with major challenges due to the myriad elements that have to be considered in this decision. Unproblematic in this regard, however, are mostly procedural obligations. While courts may not be in a position to ascertain which degree of reduction constitutes a reasonable balance, it is evident that complete inaction by the government cannot be in accordance with the duty to mitigate. At the very least, the duty to mitigate compels governments to enact a climate protection plan that seriously takes the human rights impacts into account and considers obvious possible measures.²⁹⁹

To establish the substantive obligation of a specific reduction objective, on the other hand, is more challenging. While it seems permissible for courts to strike down at least 'manifestly unreasonable' reduction programs, it is still difficult to ascertain where the applicable

²⁹⁶ Ibid. In its report the UNEP assumes that such a duty exists, but couches it in quite soft terms ('should'). Also see Knox op cit note 3 at 174-5.

²⁹⁷ UK Court of Appeal *R v Secretary of State for Transport* (27 February 2020) para 283.

²⁹⁸ As mentioned, the role of courts is not to decide on a specific reduction target but rather to review the decision of the government. In the end, however, the reasonability of the government decision will depend largely on which degree of reduction it pursues.

²⁹⁹ For example in *Oslo Principles* op cit note 289 principle 7.

threshold lies. Albeit, one aspect could make this task easier: If the state has already adopted a system to reduce emissions, there is a strong indication that these regulations cannot constitute an ‘undue burden’ on the state and can be seen as a ‘reasonable balance’. In this case, human rights litigants can demand that the state comply with its own regulations to discharge its duty to mitigate. From the vantage point of the courts, the intrusion on state sovereignty or executive prerogative is comparatively limited, as the court does little more than implement a decision already taken by the government. This thought is mirrored in the ECtHR- and IACtHR-jurisprudence who, mostly in environmental cases, have often found a violation of human rights if the respondent state did not comply with its own laws.³⁰⁰ The duty to mitigate would therefore accord a right to claimants to have state climate protection plans implemented.

An important question in this context is to what extent this consideration can be applied to international obligations, including soft, non-binding instruments – most importantly the NDCs under the Paris Agreement. The Paris Agreement itself only requires states to ‘pursue domestic mitigation measures, with the aim of achieving the objectives of’ their NDCs.³⁰¹ While the treaty itself thus only presents a rather weak obligation of conduct,³⁰² a human rights duty to mitigate could ‘charge’ these obligations with binding power and force states to indeed achieve the goals of their NDCs.³⁰³ Arguably, if a state declares or commits to a certain reduction, it cannot claim afterwards that this goal is ‘unreasonable’, regardless if the declared goal is in and of itself binding or not.³⁰⁴

This seems to have been the approach of the Hoge Raad in *Urgenda* as well: Reviewing a large number of (partly non-binding) international documents dealing with climate change mitigation, it concluded that ‘there is a high degree of international consensus on the urgent need for the Annex I countries [in the UNFCCC] to reduce greenhouse emissions by at least 25-40% by 2020 compared to 1990 levels’ and that this ‘must be taken into account when interpreting and applying the ECHR.’³⁰⁵ The Court explicitly found that the non-binding nature of some of the instruments is not an obstacle.³⁰⁶ Consequently, it held that the Dutch

³⁰⁰ Wewerinke-Singh op cit note 96 at 115; Knox op cit note 3 at 178.

³⁰¹ Article 4(2) Paris Agreement.

³⁰² S Oberthur & R Bodle ‘Legal Form and nature of the Paris Outcome’ (2016) 6 *Climate Law* at 53-4.

³⁰³ Similar Wewerinke-Singh op cit note 96 at 115-6 and 132.

³⁰⁴ Of course one can disagree as states consider very carefully if an obligation will be binding or not.

³⁰⁵ *Urgenda* supra 190 para 7.2.11

³⁰⁶ *Ibid* para 6.3.

state failed its duties under Art. 2 and 8 ECHR by adopting a policy which aimed for a reduction of only 20%, not 25%, by 2020.³⁰⁷

However, even if all NDCs were fully implemented, the often-invoked goal to keep global warming to 2 or even 1,5°C compared to pre-industrial times would be missed.³⁰⁸ According to best scientific knowledge as well as international agreements, this is the threshold where the most severe climate change impacts, including on human rights, can be averted. The goal of 2°C has recently been established as the binding goal of the Paris Agreement (Art. 2(a)) which could be seen as a (rather authentic) specification of the more general target in Art. 2 UNFCCC. In order to be effective in protecting human rights the duty to mitigate would hence have to go beyond what is already required of states under climate protection agreements.

The task is to translate and apply this global goal to individual state responsibilities. This might be possible on the basis of the concept of a GHG budget.³⁰⁹ The GHG-budget describes how many tons of GHG the whole of the global community can still emit without foiling the 2°C-goal (calculations for the 1,5°C-goal are not yet available).³¹⁰ Under a strictly egalitarian approach it is possible to allocate to each state its individual GHG-budget by dividing the global budget by the total population and then multiplying each state's population with the permissible per capita emissions. As the goal is to stop emissions of GHG by 2100,³¹¹ each state would have to make sure that its personal budget 'lasts' until then. As the current emissions per annum of most states would lead to overshooting of their respective budgets, one can establish 'reduction paths' which by gradual reduction would lead to emissions within the budget.³¹² This would make it possible to ascertain at least minimum reduction targets for certain dates in time.

Admittedly, this concept is not without weaknesses. First of all, the climate budget shows what is required to largely prevent the risk of harmful climate change. It does not take account of the other factors described above, which the reduction obligation needs to be balanced

³⁰⁷ Ibid paras 7.5.1-7.5.3.

³⁰⁸ Knox op cit note 3 at 178.

³⁰⁹ See D Brown 'Using the Paris Agreement's ambition ratcheting mechanisms to expose insufficient protection of human rights in formulating national climate policies' in S Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (2018) at 226.

³¹⁰ Ibid at 227-8.

³¹¹ IPCC op cit note 8 at 82.

³¹² See for example Knox op cit note 3 at 178.

against, such as limited state resources or development. This problem is alleviated, however, if the climate budget is merely taken as starting point. It would still be possible for the state to plead certain circumstances that require a lower reduction target.³¹³

More difficult is a second concern: The GHG-budget as just described evidently ignores difficult questions of historic emissions and climate justice as described above. Certainly, it would be possible to allocate the GHG-budget differently. In particular one could work out a 'historic' GHG-budget which considers the total GHG-budget from the beginning of the industrialisation.³¹⁴ In this scenario, many developed countries would already have used up their entire budget and a larger share of the remaining emissions would fall to developing countries.³¹⁵ Yet, which budget-approach to take (future budget or historic budget) is clearly a question of fairness and international politics and difficult to answer by courts. The principle of common but shared responsibilities is not concrete enough by far to provide sufficient guidance in this matter.³¹⁶ Nonetheless, it would be possible to formulate minimum requirements to both developed and developing states by applying the more favourable standard respectively: Developed states are required to achieve reduction as required by their current future GHG-budget, while developing states only have to achieve reduction in accordance with a historic calculation of the global GHG-budget. Effectively, this would mean applying the most favourable calculation to either side. Evidently, in total this would not lead to a sufficient reduction. It might nonetheless a basis for legally enforceable and concrete (minimum) reduction targets.

6. Summary: Duty to mitigate

In sum, there are good reasons to argue that a duty to mitigate climate change does indeed exist under human rights law. The various impacts of global warming on virtually all human rights are now beyond contestation. While no single impact can be traced to a particular emission of a particular state, this is not necessary to trigger the duty to mitigate. There is strong evidence in regional but also international human rights law that states not only have to prevent actual harm but under certain circumstances also to reduce the mere risk of harms. Every emission of GHG increases the risk of grave and very foreseeable climate change

³¹³ See *Urgenda* supra 190 para 7.5.3.

³¹⁴ Brown op cit note 309 at 229-33.

³¹⁵ G Parihar & K Dooley 'Human rights, differentiated responsibilities?' in S Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (2018) at 273.

³¹⁶ See for example *ibid* at 268.

impacts to human rights. If states neglect to mitigate their own and private emissions, this can therefore constitute an ‘interference’ with the human rights guarantees which violates the duty to respect or duty to protect respectively.

Equally difficult as justifying the duty to mitigate is determining its exact content and scope, however. As this requires a complex balancing exercise, courts have to respect the national governments and legislatures prerogative to determine the nature and scale of their efforts. However, the duty to mitigate is not entirely vague: The government is obliged to find a ‘reasonable balance’ between climate protection and other interests. Both international and national courts can examine at least roughly if adopted policies can be seen to meet this standard and strike down policies which are manifestly unbalanced. Besides failure to comply with certain procedural requirements, this will especially be the case where governments fail to comply with their own objectives. Arguably this includes non-binding declarations, including NDCs under the Paris Agreement. The human rights duty to mitigate thereby effectively ‘charges’ certain soft law norms of climate protection agreements with binding power. Indeed, the duty to mitigate under human rights law can even be seen to go beyond the requirements of climate protection law: There is broad consensus that, to prevent the most severe human rights impacts, it is essential to keep global warming below 2, better 1,5 °C. Individual governments have to ‘do their share’ in attaining this goal by not overspending on their respective climate budget. In light of the scale of human rights threats, this effort can often be seen as the ‘absolute minimum’ which the duty to mitigate requires states to do.

V. Climate justice and extraterritoriality

So far, climate change obligations and the duty to mitigate have been discussed to some extent as if it was a mere national human rights issue, not the global challenge that it is.³¹⁷ This ignores the different vulnerability to climate change and adaptive capacities of states as described earlier.³¹⁸

1. Relevance: The risk of ‘adaptation apartheid’

On first sight this might not seem like much of an issue. After all, a duty to mitigate would never only benefit the own population. As Quirico points out, a duty to mitigate would ‘de

³¹⁷ Limon op cit note 61 at 458.

³¹⁸ See supra section III.3.

facto ... have beneficial extraterritorial effects', even if it is only justified nationally, 'because of the global common nature of the atmosphere'.³¹⁹

Nonetheless, an extraterritorial perspective on the duty to mitigate is necessary to safeguard its potential for climate justice. This is due to two considerations: First, the case for a duty to mitigate would be much stronger if states had to consider the impacts of climate change around the world, not only within their own territory. This is especially true for developed countries in the global north for which the impact of climate change might all in all be tolerable and the 2°C-goal perhaps not mandatory to avert serious harm to the population.

More importantly, an extraterritorial application of human rights would shift the relation between adaptation and mitigation efforts: For an individual state trying to protect only its own population, adaptation measures will often be more (cost-)effective than mitigation. For example, if a (developed) state reduces emissions this will likely slow down its economic development.³²⁰ This action by itself, however, does not affect climate change significantly and the benefit for the own population will be indirect and minimal. On the other hand, if a state instead invests in adaptation measures this might indeed have a positive effect on its economy³²¹ and will benefit the own population directly and palpably. From a national point of view, developed states in particular might therefore use their discretion with relation to their human rights duties exclusively for adaptation, shielding their own population from climate change. A mere territorial viewpoint could thus aggravate the already existing differences which some scholars even equate with a crime against humanity, calling it 'adaptation apartheid'.³²²

2. Overcoming 'adaptation apartheid'

Human rights, by their nature, are supposed to protect the most vulnerable and diminish inequalities, not reinforce them. There must accordingly be a way to interpret the duties in a way that protects rights all over the globe, avoids 'adaptation apartheid' and supports climate justice. Two related but distinguishable possibilities present themselves: First, one could interpret the relevant human rights treaties to include rights for people outside a state's own

³¹⁹ Quirico op cit note 111 at 196-7. He includes the duty to adapt in this assessment, however, which dissents with the view of this paper on a merely territorial duty to adapt.

³²⁰ Hall & Weiss op cit note 60 at 323.

³²¹ Ibid.

³²² Ibid.

territory. Secondly, one could correlate the duty to mitigate with duties to cooperate internationally.³²³

a) Applying human rights extraterritorially

The first line of thought would be to find arguments and interpretations that do allow for an extraterritorial duty under human rights treaties – a very contentious issue.³²⁴ Moreover, the fragmentation of human rights law again becomes evident: Not only is the problem addressed slightly different in each instrument, there are also differences between groups of rights, in particular between civil and political rights on one hand and economic, social and cultural rights on the other hand.³²⁵

(1) The rule: The requirement of ‘jurisdiction’

Despite the differences between different instruments, the extraterritorial effect of human rights obligations largely depends on the question if a state can be seen to exercise ‘jurisdiction’ over the person affected.³²⁶ Most prominently, Art. 2(1) ICCPR limits the application of the Covenant as follows:

‘Each State Party to the present Covenant undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized in the present Covenant, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.’³²⁷

Patently, in order to give rise to obligations on a state, a right under the ICCPR has to be threatened ‘within its territory and subject to its jurisdiction’. Similar limitations can be found in the the ECHR³²⁸ and the ACHR.³²⁹ The ACHPR on the other hand does not contain such a limitation but holds generally that member states have to ‘recognize the rights’ in the Charter³³⁰ and that ‘[e]very individual shall be entitled’ to them.³³¹

³²³ Quirico op cit note 111 at 195.

³²⁴ Ibid at 193.

³²⁵ Ibid at 193-4.

³²⁶ N Wenzel ‘Human Rights, Treaties, Extraterritorial Application and Effects’ in R Wolfrum *MPEIL* (2008) para 3.

³²⁷ Emphasis added.

³²⁸ Art. 1 ECHR: ‘The High Contracting Parties shall secure to everyone within their jurisdiction the rights and freedoms defined in Section I of this Convention.’ (emphasis added).

³²⁹ Art. 1(1) ACHR: The States Parties to this Convention undertake to respect the rights and freedoms recognized herein and to ensure to all persons subject to their jurisdiction the free and full exercise of those rights and freedoms, without any discrimination ...’ (emphasis added).

³³⁰ Art. 1 AChHPR.

³³¹ Art. 2 AChHPR.

The problem with the limitation clause in Art. 2(1) ICCPR becomes slightly smaller in light of ICJ jurisprudence which applies a disjunctive reading to the central ‘within its territory and subject to its jurisdiction’, effectively reading the phrase as ‘within its territory *or* subject to its jurisdiction.’³³² An extraterritorial application is thus possible if the state exercises ‘jurisdiction’.

This vantage point is in line with the classical conception of human rights law which is conceptually ‘vertical’ in nature.³³³ Traditionally, human rights apply between the state and its subjects. A ‘diagonal’ application, that is obligations between a state and another state’s subjects, is a quite novel idea.³³⁴ In light of this basic conception, one might argue to apply these standards also to treaties that do not include a territoriality provision of their own. This applies especially to the ICESCR. The ICESCR does not contain a territoriality or jurisdiction-clause.³³⁵ Still, many scholars assume that generally the same principles apply as in the case of the ICCPR.³³⁶ This seems plausible, especially in light of Art. 2 of the Optional Protocol to the ICESCR which allows communications that arise ‘under the jurisdiction of a State party’ with regards to a violation ‘by *that* State party’ (emphasis added).³³⁷ The central question for the extraterritorial application of human rights norms – including in the context of climate change – hence is if the state executed ‘jurisdiction’. Importantly, the state has to exercise jurisdiction over the affected individuals, not the causes of the harm which severely limits the cases of application.³³⁸

Albeit, the standard to establish ‘jurisdiction’ is neither uniform nor clear. A quite restrictive approach is adopted by the ECtHR which in its often-criticised³³⁹ decision *Banković v Belgium* denied violations of the ECHR due to bombings in the former Republic of

³³² ICJ, *Legal consequences of the construction of a wall in the occupied Palestinian territory* (Advisory Opinion, 9 July 2004), paras. 108–111; see also Wenzel op cit note 326 para 4 who notes that this interpretation is contested in particular by the United States and also provides a convincing argument for the disjunctive reading.

³³³ Hall & Weiss op cit note 60 at 344. Article 55 UNCh applies more to relations between states.

³³⁴ J Knox ‘Diagonal Environmental Rights’ in M Gibney & S Skogley (eds) *Universal Human Rights and Extraterritorial Obligations* at 82-3.

³³⁵ E Askin ‘Economic and Social Rights, Extraterritorial Application’ in R Wolfrum *MPEIL* (2019) paras 10, 11. On Art. 2(1) ICESCR see below.

³³⁶ *Ibid* para 19.

³³⁷ Despite the until now low number of ratifications of the ICESCR OP, this is an important argument, see Art. 31(2)(a) Vienna Convention on Treaties.

³³⁸ *OC-17/23* supra 224 para 72; Knox op cit note 334 para 88.

³³⁹ Wenzel op cit 326 para 12.

Yugoslavia.³⁴⁰ The case for extraterritorial application in environment and climate change cases should not be better: ‘If dropping bombs on a city does not amount to effective control of its occupants, allowing pollution to move across an international border almost certainly would not.’³⁴¹ Although the ECtHR slightly relaxed this standard in later case law,³⁴² GHG-emissions should still fall short of establishing ‘jurisdiction’.

The approach of the IACtHR is noticeably broader: In its landmark 2017 advisory opinion OC-17/23 on the environment and human rights, it stated explicitly that:

‘When transboundary harm or damage occurs, a person is under the jurisdiction of the State of origin if there is a causal link between the action that occurred within its territory and the negative impact on the human rights of persons outside its territory. The exercise of jurisdiction arises when the State of origin exercises effective control over the activities that caused the damage and the consequent human rights violation.’³⁴³

Applied to GHG-emissions, it is easy to maintain that the state will often have ‘effective control’ over the emitting activities.

The crucial point, however, is – again – if there is a causal link between the emission and ‘the negative impact on the human rights of persons outside its territory’. Can the earlier argument that the causation of risk is enough to trigger state obligations overcome this hurdle as well? This seems very dubious. The IACtHR-test clearly only applies ‘[w]hen transboundary harm or damage *occurs*’ (emphasis added). In this context, the mere causation of risk would hence not be sufficient. This is no contradiction to the earlier argument, as it relates to a different issue entirely: Earlier, the question was what is required under applicable human rights obligations. In the present context, the question is whether certain human rights norms apply at all. In light of the starting point of extraterritorial obligations (the state has to indeed have control over the affected person), it would overstretch the already extensive new approach by the IACtHR if jurisdiction was assumed already in the case of mere risk. In the end, it is therefore very difficult to justify ‘jurisdiction’ and hence extraterritorial application in cases of climate change.³⁴⁴

³⁴⁰ ECtHR *Banković v Belgium* (12 December 2001).

³⁴¹ Knox op cit note 334 at 87.

³⁴² C Steinorth ‘Banković Case’ in R Wolfrum *MPEIL* (2012) paras 22-4.

³⁴³ *OC-17/23* supra note 224 para 104.

³⁴⁴ UNEP op cit note 154 at 26; similar Atapattu op cit note 38 at 140.

(2) The exception: The right to self-determination

There might be one exception to this rule, though: The human right to self-determination. In contrast to other human rights guarantees, it has been largely accepted for some time that the right to self-determination does indeed apply across territorial and jurisdictional boundaries.³⁴⁵ This is supported by the wording of Art. 1(3) ICCPR and ICESCR which obligates all ‘States Parties to the present Covenant, including [but not limited to] those having responsibility for the administration of Non-Self-Governing and Trust Territories’ to ‘respect that right’, which includes the guarantee in subsection 2 that ‘[i]n no case may a people be deprived of its own means of subsistence’. Moreover, in the ICCPR, the right is located before the discussed limiting clause of Art. 2(1) ICCPR which indicates that the latter does not apply to the right. Sure enough, the parties of both Covenants had colonial situations in mind much rather than climate change when drafting these rules in 1966. Nonetheless, the provisions can be interpreted to mean that all states must mitigate to make sure that climate change impacts do not threaten nations (for example small island states, see above) in their sheer existence.

In concrete terms, this would significantly reinforce the case for a duty to mitigate and especially the basis of a GHG-budget: While the target of a 2°C increase might not be forcibly necessary to avert devastating impacts in some (developed) states and thus not required from them under (nationally applied) human rights law, it would certainly be mandated to prevent such impacts on small island states.³⁴⁶

Admittedly, this result might seem somewhat arbitrary: On one hand, the full array of global human rights of billions of people is impacted by climate change, yet this does not lead to any extraterritorial duties on states. On the other hand, what triggers such duties and makes a notable difference then is the somewhat peculiar right to self-determination of comparatively small populations. Yet, this is owed to the clear wording of Art. 1 ICCPR and ICESCR and the broad acceptance of its application beyond borders, as well as the unprecedented scale of climate change which indeed threatens entire nations. In the end, it is indeed quite in line with basic ideals of human rights law that its requirements shall be guided by the needs of the most vulnerable and least powerful.

³⁴⁵ HRC *GC No. 12* para 6; Quirico op cit note 111 at 195.

³⁴⁶ Wewerinke-Singh op cit note 96 at 113.

b) Duties of international cooperation

Besides the ‘direct’ extraterritorial application of human rights duties, there is a conceivable way to apply them ‘indirectly’ under a duty to international co-operation with other states.³⁴⁷ Such an obligation has been referenced for example in the Stockholm Declaration³⁴⁸ and the Rio Declaration.³⁴⁹ The most salient basis in human rights law, however, can be found in Art. 2(1) ICESCR. It states:

‘Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.’³⁵⁰

In its 2009 report the OHCHR summarized several General Comments by the ICESCR-Committee and found that under duty to co-operate that states have to, among other things

‘[r]efrain from interfering with the enjoyment of human rights in other countries’

and to

‘[t]ake measures to prevent third parties (e.g. private companies) over which they hold influence from interfering with the enjoyment of human rights in other countries’³⁵¹

On the basis of these duties, there are good arguments for both an extraterritorial duty to mitigate: The mentioned requirements are essentially an extraterritorial duty to respect (‘refrain from interfering’) and to protect (‘take measures to prevent third parties ... from interfering’) as described above. One could hence transfer the argument that causation of risk can constitute ‘interference’ and thus require states to mitigate enough to reduce risks not only at home but also ‘in other countries’.³⁵²

³⁴⁷ Quirico op cit note 111 at 196; Knox op cit note 3 at 172.

³⁴⁸ Principle 24.

³⁴⁹ Especially principles 7, 9 and 27.

³⁵⁰ Emphasis added, see also Art. 7(7) Paris Agreement.

³⁵¹ OHCHR op cit note 16 para 86.

³⁵² Quirico op cit note 111 at 196.

Albeit, it is very debatable if the duty to co-operate so established by the ICESCR-Committee and summarized by the OHCHR does indeed exist as binding international human rights law. As mentioned, General Comments in and of themselves do not possess binding power. Further, looking at state practice it is questionable if the duty to cooperate can be seen as customary international law: Binding international duties have persistently been rejected, mostly by developed states.³⁵³

On the other hand, such a duty would be very much in line with an established rule of international environmental law and general public international law: The no harm-rule. According to this rule

*'[s]tates have ... 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.'*³⁵⁴

According to ICJ-case law, the no harm-rule is part of binding international law.³⁵⁵ While it originated in other areas of international law, there is no reason why 'harm' should exclude human rights impacts. This would reinforce the case of a duty not to interfere as part of a human rights duty to cooperate as described by the ICESCR-Committee. Moreover, most scholars agree that the no harm-rule is applicable to GHG-emissions and climate change.³⁵⁶

The no harm-rule can also help clarify the exact content of a potential duty to cooperate by not interfering. The no harm-rule essentially requires states to act with due diligence.³⁵⁷ Arguably, it is then not impossible to apply the no harm-rule to a risk-based approach as advocated here. According to Peel, in the context of climate change, this would require states to adopt 'mandatory emissions reductions consistent with the goal of containing average global temperature rise well below' 2°C above pre-industrial levels'.³⁵⁸ This is in line with the reflection that a higher increase would interfere gravely with the 'enjoyment of human rights' in many countries. In consequence, if one is prepared to accept a state duty to not interfere with the enjoyment of human rights in other countries as part of the general duty to cooperate

³⁵³ World Bank op cit note 4 at 60.

³⁵⁴ Principle 2 Rio-Declaration.

³⁵⁵ Koivurova op cit note 230 paras 12-15.

³⁵⁶ Peel op cit note 183 at 1031-2.

³⁵⁷ Ibid at 1030.

³⁵⁸ Ibid at 1034; similar Limon op cit note 61 at 455.

(for which there are good reasons), this would thereby effectively lead to an ‘indirect’ extraterritorial duty to mitigate.

c) Summary

As has been shown, good starting points exist to justify a – direct or indirect – duty to mitigate beyond each state’s national borders. A direct extraterritorial application of human rights is *de lege lata* viable only to a very limited extent, namely with regard to the right to self-determination under Art. 1 ICCPR and ICESCR. Still, if taken seriously, this would reinforce state duties to mitigate substantively.

Alternatively, an indirect extraterritorial duty to mitigate as part of the duty to co-operate is more conceivable, although there is yet not much state practice. The no harm-rule, however, is firmly established in international environmental and international public law. Its reasoning can be transferred to human rights law which would require states not to cause ‘damage’, and arguably risk of damage, to human rights in other states.

In effect, both an extraterritorial obligation under the right to self-determination as well as under the general duty to cooperate would lead to the by and large same concrete duty: To do what is necessary to keep global warming below 2°C or even 1,5°C. In the former case, a higher increase would severely jeopardize the right to self-determination of certain peoples. In the latter case, a higher rise must be seen to interfere significantly with the enjoyment of human rights in many other countries. Thereby, such a duty to mitigate arguably applies to states regardless of the concrete impacts of climate change on their own territory. Under human rights law, they are not allowed to merely protect their own population, for example by limiting themselves to adaptation without mitigation. Instead, they always have to take mitigation measures that avert the worst human rights impacts globally. The dystopia of ‘adaptation-apartheid’ could thus be averted.

VI. Conclusion: The case for a human rights law duty to mitigate climate change

The question set out at the beginning of this dissertation was: ‘Does international human rights law impose on states a concrete and enforceable duty to mitigate climate change by reducing emissions?’ Now, there are good reasons to answer: ‘yes’. True enough, it would be

an exaggeration to say that the global, complex problem of climate change fitted well into the traditional human rights system. However, the existing framework provides useful starting points and sufficient adaptability to be effectively applied to the “one of the greatest threats to human rights of our generation”.³⁵⁹ Central issues such as the problem of causation, judicial constraints, extraterritorial effects and complex issues of climate justice can be resolved or accommodated to a large extent. True enough, the inscrutable causation chain whereby per se harmless activities, through emission of per se harmless gases, eventually lead to severe, global impairments on the full array of human rights (supra Section III), makes it challenging to establish human rights violations and corresponding duties. Albeit, this hurdle is by no means unsurmountable: By focusing on a human rights duty to prevent and reduce risks, as already distinguishable especially in the European and Inter-American human rights systems, states can be held accountable for general causation of human rights impairments (supra Section IV). This risk-focused approach provides a viable foundation for a human rights duty to mitigate climate change. Moreover, it is possible to reasonably substantiate the content of this duty without interfering with state sovereignty or separation of powers by applying a flexible standard of reasonableness. Lastly, the duty to mitigate can be corroborated further by a limited extraterritorial application of its human rights foundations and thereby help realise more climate justice (supra Section V).

Another thing has become clear in the course of the discussion: Much of the progress has been achieved due to the dedication of climate activists, be it the Inuit Petition, the Male’ Declaration or the Urgenda-Foundation. It can be hoped, that they will continue to “take responsibility” and to defend not only their own, but every person’s human rights.

³⁵⁹ UNEP op cit note 154 at VI (foreword).

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