

# Challenges to Protecting the Right to Health under the Climate Change Regime

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## Abstract

Researchers and global policy makers are increasingly documenting negative health impacts from climate change, raising concerns for realizing the right to health. Importantly, courts have held that anthropogenic activities affecting climate may threaten a population's standard of health and compromise its inviolable right to health. However, legal hurdles—such as the fragmentation of climate change and human rights laws and the difficulties in proving causal links—hamper efforts to litigate right to health claims in the context of climate change. To address these challenges, this article assesses the detrimental effects of climate change from an international human rights perspective and analyzes climate change litigation to explore potential avenues to press for the right to health in the face of climate change.

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## Introduction

Climate change has been identified as one of the major crises facing the global community.<sup>1</sup> Researchers and international organizations—such as the Office of the United Nations High Commissioner for Human Rights (OHCHR), the Human Rights Council, the United Nations Environment Programme, and the World Health Organization—are increasingly documenting the negative health impacts of climate change, raising concerns for realizing the right to health under climate change.<sup>2</sup> However, associating aspects of climate change with the right to health remains a challenge, and the right to health implications of climate change are seldom discussed in court decisions.<sup>3</sup> The failure to associate climate change with the right to health is concerning because it may result in the health impacts of climate change being regarded as an issue that can be resolved only through political processes, and not human rights litigation.<sup>4</sup> Efficient protection of the right to health cannot be well developed under the climate change regime, nor can climate change protection be well developed under the right to health regime.<sup>5</sup> Furthermore, uncertainties in measuring the scale and impact of climate health risks, legal hurdles (such as proving complicated causal links), the uneven distribution of states' responsibilities, and issues of extraterritoriality also hamper efforts to link climate change with the right to health in litigation. To better understand the possibilities and challenges of making right to health claims in climate change litigation, this paper aims to delineate a right to health framework for climate change and to reaffirm the links that exist between the two.

### Addressing climate change impacts through a human rights lens: Attempts and obstacles

Addressing the impacts of climate change on human rights grounds is not a new idea. For example, the preamble to the Paris Agreement of 2015 affirms that “[since] 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.” In a 2005 petition by the Inuit to the Inter-American Commission on Human Rights, the US government’s failure to regulate greenhouse gas (GHG) emissions, which has exacerbated climate change leading to impacts on the Inuit people’s traditional way of life, was evaluated through the lens of human rights.<sup>6</sup> Recently, several courts have also recognized that anthropogenic activity affecting the climate may threaten the enjoyment of decent health and life and violate human rights (e.g., *Laghari v. Pakistan* and *Urgenda v. Netherlands*).<sup>7</sup> As the linkage between climate change and human rights gains increasing prominence, a human rights approach is expected to direct public and political attention to the detrimental human consequences of climate change, and to be applied to climate change cases across a range of scenarios.<sup>8</sup>

However, the interface between climate change and human rights was recognized only recently (for example, the first human rights and climate change resolution was adopted by the Human Rights Council in 2008) and is still evolving.<sup>9</sup> Due to the political and economic pressures from political entities (such as regional economic communities) and multinational enterprises, many states and international organizations still do not acknowledge the link between climate change and human rights.<sup>10</sup> For example, the OHCHR stated in 2009 that “the physical impacts of global warming cannot easily be classified as human rights violations, not least because climate change-related harm often cannot clearly be attributed to acts or omissions of specific States.”<sup>11</sup> Regarding the Paris Agreement, the final text does not include human rights in its operative provisions, despite pressure from civil society groups advocating for such recognition.<sup>12</sup> It therefore remains unclear whether the climate change–human rights connection is endorsed by the United Nations (UN) or high-income countries that are primarily responsible for climate change and seek to avoid liability by opposing human rights-based arguments.<sup>13</sup>

Furthermore, the dissociation of states’ responsibilities toward climate change and toward human rights is partially caused by an entrenched

disciplinary gap between these two arenas.<sup>14</sup> Climate change governance is rooted in objective scientific research and is economically oriented.<sup>15</sup> Human rights protection, on the other hand, is based on humanitarian values and prioritizes the protection of individuals and communities from abuses (such as those arising from climate change). Climate change negotiations are also centered on consensus-driven and economic welfare-based, rather than human rights-based, solutions.<sup>16</sup> For example, instead of referring directly to human rights, the UN Conference on Environment and Development in Rio de Janeiro could only reach the consensus that human beings “are entitled to a healthy and productive life in harmony with nature” in the Rio Declaration.<sup>17</sup>

Efforts toward international recognition of a new stand-alone right to a healthy environment are underway. In October 2021, the Human Rights Council adopted two landmark resolutions. The first of these recognizes “the right to a clean, healthy and sustainable environment” as a stand-alone human right for the first time.<sup>18</sup> The second appoints a Special Rapporteur to study, identify, and report on the adverse and far-reaching impacts of climate change on human rights.<sup>19</sup> However, how governments incorporate the new nonbinding right into their climate change legislation and how courts interpret this new right in light of existing climate change laws has yet to be observed. The debate concerning the pros (such as addressing climate change impacts through the procedural and substantive protections embodied in the UN human rights system) and cons (such as duplication of existing rights) of the UN’s recognition of the right to a healthy environment may also continue for a while.<sup>20</sup> This is partly because, due to the marginal status of human rights in the climate change regime, global climate change law focuses mainly on environmental damage and the state’s responsibility to constrain environmentally deleterious behavior rather than on the state’s responsibility to avoid climate change impacts on humans.<sup>21</sup>

For example, sustainable development is a principle of global climate change law, with population-wide health being one of its central goals, yet

no specific references to the protection of human health were made when the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992.<sup>22</sup> UNFCCC article 4.1(f) briefly states that parties should employ appropriate assessments with a view to minimizing adverse effects on the economy and public health when mitigating or adapting to climate change. However, the public health assessment requirement is stipulated in a vague and nonbinding manner, requiring only that parties consider public health impacts “to the extent feasible” and allowing them to sacrifice public health in the name of economic growth. The Kyoto Protocol of 1997, which aims to assist states in meeting GHG emissions reduction targets in mostly economic terms, does not clearly lay out any health-related objectives, either.<sup>23</sup> Further, most climate change rulings that have been issued by national courts are only indirectly based on human rights, with courts’ primary focus on a general duty to prevent environmental damage.<sup>24</sup> As a result, even though in theory it is assumed by the OHCHR and the Human Rights Council that human rights should shape states’ climate policies, in practice it remains uncertain how and to what extent human rights, including the right to a healthy environment, shape or direct these policies.<sup>25</sup>

### Linking climate change to the right to health

Despite political opposition, proponents argue that conceptualizing climate change in human rights terms can help individuals and societies personalize their vulnerability to the harms caused by climate change, identify the pathways in which the harms link law and justice, and contribute to a variety of procedural and substantive outcomes.<sup>26</sup> For example, the human rights approach provides an existing legal language with great legitimacy that can be used to connect human dignity and the abstract entity of the climate (or the environment).<sup>27</sup> Through the direct application of a human rights perspective in climate cases or through the indirect influence of human rights law on national climate legislation, the attempts of legislatures or

judiciaries to address climate change challenges may benefit from the normative strength of human rights arguments.<sup>28</sup> The human rights approach can also supplement the effective application of stakeholders' procedural rights in climate change law and increase public participation in climate management.<sup>29</sup>

Nevertheless, the application of human rights in the climate change regime may be flawed.<sup>30</sup> For example, opponents regard the human rights approach as inefficient because it reflects only common denominators rather than climate exigencies and is usually deployed after rights violations and environmental destruction has occurred.<sup>31</sup> Additionally, climate change mitigation and adaptation involve complex trade-offs between values, which cannot be properly addressed using the human rights approach alone unless the approach embraces the lessons of climate science and efforts to reach political solutions.<sup>32</sup> But these challenges, which are also found in climate change laws, cannot be resolved without technological developments or interstate negotiations, which take time.<sup>33</sup> In the meantime, the human rights approach, even if it alone cannot solve the climate change problem, can be instrumental in combating climate change and prodding the political process.<sup>34</sup>

By bringing the climate change regime into closer alignment with human rights protection, the right to health can be used to drive greater integration between currently separate international agendas and can provide a tangible legal framework for analyzing states' responsibilities with regard to climate change.<sup>35</sup>

### Health impacts of climate change

Researchers and UN bodies alike recognize that human health is widely impacted by climate change.<sup>36</sup> For example, the rise in temperature due to GHG emissions has induced heat stress and caused bodily dysfunction and even deaths.<sup>37</sup> Unreliable water availability, which is sensitive to climate change, also increases individuals' risk of exposure to vector-borne (such as malaria) and water-borne (such as cholera) diseases, especially for vulnerable popula-

tions in water-scarce regions.<sup>38</sup> Changing humidity levels can worsen air pollution and increase asthma attacks due to the effects of pollutants.<sup>39</sup> Excessive rainfall caused by climate change leads to blooms of micro-organisms entering drinking water, thus increasing the transmission of water-borne infectious diseases.<sup>40</sup> The World Health Organization has also identified myriad ways in which climate change is already affecting human health, and the organization is continuing to monitor the health impacts of climate change.<sup>41</sup> For example, it estimates that climate change will cause approximately 250,000 additional deaths per year between 2030 and 2050 from malnutrition, malaria, diarrhea, and heat stress.<sup>42</sup> A 2016 study led by the World Health Organization showed that specific diseases (such as dengue fever, malaria, diarrhea, leptospirosis, and typhoid fever) are highly climate sensitive in Pacific Island countries, which are more vulnerable to the health impacts of a changing climate.<sup>43</sup>

Since climate change poses a grave threat to human health, which includes the social and environmental determinants of health, the right to health is frequently invoked in climate change cases, and the call for right to health action and the mobilization of the human rights machinery to monitor states' climate change commitments is well justified.<sup>44</sup> Additionally, researchers are now working to build evidence that links cause (climate change) and effect (health impacts). For example, in an effort to map the connection between climate change and human health, both a 2016 OHCHR study and a 2016 US Global Change Research Program report draw attention to the vast body of climatology and public health research that identifies close correlations between climate change and health issues and makes predictions for different scenarios, including the risk of infectious disease transmission and negative impacts on mental health caused by heat, air pollution, extreme weather, storms and floods, drought, and wildfires.<sup>45</sup> Stakeholders—including civil society organizations, international organizations, and national human rights institutions—overwhelmingly agree that there is such a connection.<sup>46</sup> Solid empirical research and strong societal consensus

help provide a tangible basis to shape right to health claims in climate change cases.<sup>47</sup>

### *Expansion of the right to health*

On the recommendation of the Special Rapporteurs, the OHCHR, and the Committee on Economic, Social and Cultural Rights (CESCR), the scope of the right to health has gradually been expanded to offer protection against climate change.<sup>48</sup> For example, a major 2014 report of the Special Rapporteur on the right to health notes that states have health rights obligations to individuals and groups who have essential needs that fall under the purview of the right to health (such as clean water and adequate sanitation) owing to climate conditions.<sup>49</sup> The report also calls on the Human Rights Council to urgently study climate change impacts on human rights, particularly the right to health.<sup>50</sup> More recently, the Special Rapporteur on human rights and the environment and the OHCHR have confirmed that the mitigation of or adaptation to climate change impacts is fundamental for protecting the right to health and that “states, therefore, have clear obligations to take measures to prevent and remedy the negative impacts of climate change on the right to health, including with regard to the environmental and social determinants of health.”<sup>51</sup>

According to the CESCR, the right to health includes the traditional obligation of the state to ensure access to health care and other underlying determinants of health, as well as to provide protection against interference with individuals’ health affairs.<sup>52</sup> The underlying preconditions for health include an adequate supply of nutritious food, safe drinking water, basic sanitation, and *freedom from serious environmental health threats*.<sup>53</sup> This freedom constitutes the baseline below which no individuals should fall and is consistent with the emergence of a self-evident human right to a healthy environment.<sup>54</sup> Furthermore, the right to life claim, which is also frequently invoked in climate change litigation, is encompassed in the broad conception of the right to health because one’s health is obviously damaged when one’s life is threatened by climate change.<sup>55</sup> Namely, climate change that involves the risk of loss of health or life warrants protection un-

der the right to health.<sup>56</sup>

Even though the Human Rights Council recently passed a resolution recognizing the right to a healthy environment, there are still obstacles (political controversies and inertia) to the incorporation of the new nonbinding right into national climate change laws.<sup>57</sup> The right to health, which is linked with the right to a healthy environment, can be used as an alternative legal basis to require states to systematically carry out human rights impact assessments prior to and during the implementation of climate change measures, and to provide effective redress mechanisms for those whose right to health is violated due to climate change health threats.<sup>58</sup> Furthermore, because only a limited number of treaties—such as the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (article 11) and the African Charter on Human and Peoples’ Rights (article 24)—include the right to a healthy environment, there is a lack of sufficient normative power for advocates to effectively protect human rights from climate change impacts.<sup>59</sup> To fill the gap, the right to health can provide a basis for intervention against, or remedy for, climate change harms and for the guarantee of governments’ full compliance with global climate change principles.<sup>60</sup>

### *Emerging rights-based climate change litigation*

Not all courts consider right to health claims in the realm of climate protection to be justiciable.<sup>61</sup> This is because some courts understand climate change matters as political (climate change policy choices) rather than legal issues, which precludes the courts’ consideration of right to health claims.<sup>62</sup> But several courts at the domestic and international levels seem to be in favor of the right to health approach and of incorporating into it an entitlement to a safe environment.<sup>63</sup> For example, in *Marangopoulos Foundation for Human Rights v. Greece*, the European Committee of Social Rights found a human rights violation in the state’s failure to properly abate an activity previously identified as contributing to climate change based on scientific evidence collected by the World Health Organization; in its holding, the committee referred to article 11 of the

European Social Charter (the right to protection of health).<sup>64</sup> The committee further recognized the state's responsibility to design measures to remove the cause of the ill-health resulting from the climate threat.<sup>65</sup> In *Clean Air Foundation Limited and Gordon David Oldham v. Government of the Hong Kong Special Administrative Region*, the Hong Kong High Court recognized the government's right to health obligation to combat air pollution.<sup>66</sup> In *Montana Environmental Information Center v. US Office of Surface Mining*, a US district court's conclusion shows that the government has the responsibility to adequately consider the adverse effects of coal combustion, including on public health.<sup>67</sup>

Even though in some cases the right to health is not directly cited, jurisprudence addresses the right to life in the context of environmental degradation, where most aspects are also covered by the right to health due to the overlapping elements of these two rights.<sup>68</sup> For example, in *Urgenda*, the Dutch Supreme Court used the argument of the right to life (article 2 of the European Convention on Human Rights), along with the right to home and family life (article 8), to establish the state's duty of care regarding the development and implementation of adequate climate mitigation policy.<sup>69</sup> In *Leghari*, the Pakistan Lahore High Court found climate change to be a challenge to the right to life (article 9 of the Constitution of Pakistan), which includes the right to a healthy and clean environment, and concluded that the government's failure to implement a national climate policy framework in a timely fashion constituted a human rights violation.<sup>70</sup> In *Juliana v. United States*, a US district court concluded that the right to a stable climate system capable of supporting human life is a fundamental substantive due process right and a right under the public trust doctrine.<sup>71</sup> In *Gbemre v. Shell Petroleum Development Company of Nigeria Ltd.*, the Nigerian Federal High Court ruled that the constitutional right of individuals to life and dignity were violated by the oil company and the government because "the burning of gas by flaring in [the] community ... contribute[d] to adverse climate change as it emit[ted] carbon dioxide and methane, which

causes warming of the environment."<sup>72</sup>

These cases demonstrate that if litigants can establish that the state's failure to mitigate or adapt adequately to climate change resulted in damage to health or life, they then may claim a violation of the right to health.<sup>73</sup> Researchers and advocates also encourage claimants to utilize international human rights mechanisms in climate change cases to pursue their desired remedy.

### *The international right to health as an interpretative tool in domestic litigation*

Courts also use the international right to health as an interpretative tool in domestic climate change litigation, either to strengthen the justification for limiting other competing interests (such as economic development) or to validate stronger environmental protection.<sup>74</sup> For example, courts may rely on the right to health in interpreting undefined legislative requirements in climate change laws (such as the notion of "public interest"), and it can be used as a supplementary tool when assessing breaches of legal obligations under climate change law as well as other obligations related to climate change under international human rights law.<sup>75</sup> Therefore, taking the right to health into account can assist courts in judging the adequacy of mitigation and adaptation measures as a response to health risks posed by climate change.<sup>76</sup> As a result, international right to health obligations may help create a duty of care for governments not only to refrain from actions that may lead to violations of the right to health (the obligation to respect) but also to prevent such violations from occurring within their borders (the obligation to protect).<sup>77</sup> In *Urgenda*, the scope and content of the state's duty of care was delineated on the basis of human rights standards, which served as a source for interpreting undefined legal standards and concepts.<sup>78</sup> In *Earthlife Africa Johannesburg v. Minister for Environmental Affairs*, the court used human rights provisions as an interpretive aid to clarify undefined legislative requirements related to environmental impact assessments, such as the notion of public interest and the principle of intergenerational justice.<sup>79</sup> These

cases show that the international right to health may serve as a platform that offers a normative and institutional framework for strengthening the accountability of states.<sup>80</sup>

Additionally, addressing climate change impacts through individual claims for damages in the courts meets mixed success due to complexities in proving causation.<sup>81</sup> Litigants may be more successful by alleging that the government has failed to fulfill its right to health obligations relating to climate change. First, international legal instruments have delineated the scope and content of states' right to health obligations to prevent or control adverse impacts on individuals' enjoyment of the highest attainable standard of health. Therefore, instead of establishing that an actor's specific activity contributing to climate change caused the specific health harm of the plaintiff, the plaintiff in human rights-based climate change litigation needs to prove only that the state has failed to act in compliance with its right to health obligations delineated in human rights documents.<sup>82</sup> For example, the CESCR states that due process requirements (such as the right of individuals and groups to participate in decision-making processes that may affect their health) must be an integral component of any policy developed to discharge the state's right to health obligations.<sup>83</sup> Therefore, a court can hold a state responsible for violating the right to health in its climate change policies due to procedural deficits, regardless of whether specific climate change harms can be directly attributed to the state.<sup>84</sup>

According to the CESCR, the right to health imposes three types of obligations on states: the obligations to respect, to protect, and to fulfill. These obligations can provide an alternative route for litigants to pursue climate change litigation.<sup>85</sup> Violations of *the obligation to respect* the right to health are those state actions, policies, or laws that are "likely to result in bodily harm, unnecessary morbidity and preventable mortality."<sup>86</sup> Given that climate change is predicted to impact almost every facet of human health, a state's failure to refrain from acting in a manner that contributes to climate change, which would interfere (directly or indirectly) with health, may be regarded as a violation

of the right to health.<sup>87</sup> Regarding *the obligation to protect*, states are required "to regulate the activities of individuals, groups or corporations so as to prevent them from violating the right to health of others."<sup>88</sup> The obligation then suggests a duty of the state to actively adopt climate mitigation legislation (such as setting GHG emissions targets) to protect individuals from negative third-party interference in their right to health.<sup>89</sup> *The obligation to fulfill* requires states to adopt appropriate legislative and administrative measures toward the full realization of the right to health.<sup>90</sup> These measures include producing climate-related health impact assessments and providing health-relevant climate information to potentially affected communities.<sup>91</sup> A state's failure to assess climate-related health risks in the decision-making process may then be identified as breaching the right to health standards.<sup>92</sup>

Second, pointing to general and universal negative impacts of climate change on the public health and the state's general inaction should be sufficient to establish a right to health violation associated with climate change.<sup>93</sup> For example, the *Leghari* court held that the state's failure to adhere to its own climate change plan and implementation framework violated its human rights obligations, based on the recognition of the general threat posed to the public by global warming.<sup>94</sup> In this manner, litigants in human rights-based climate change litigation can use the general association of climate change and health impacts, rather than a causal relationship between specific climate-relevant activities and explicit health harms, to establish a governmental duty to act and to support their right to health.<sup>95</sup> In practice, establishing a sufficient causal link between a given activity and specific health harms is of course the strongest approach to successful climate change litigation. But it is difficult for climate change victims to prove specific causation due to scientific uncertainties.<sup>96</sup> The right to health approach thus provides an alternative to establish the state's obligation to combat climate change.

However, we should keep in mind that the right to health approach should not supplant climate change laws, nor should it be used to undermine

democracy by shifting power from the legislature to the court.<sup>97</sup> The right to health serves as a bridge between the domains of climate change and human rights, where it can be used in the judicial branch as a supplementary policy instrument when legislative and administrative action is unlikely to be forthcoming. Additionally, although the right to health approach may enable individuals to claim against the state, right to health claims in climate change litigation still need to be supported by scientific evidence, environmental principles, and climate justice claims.<sup>98</sup>

### Legal hurdles to linking climate change to the right to health

Although the implications of climate change for the realization of the right to health are increasingly obvious on the ground, linking climate change to the right to health in law still faces several hurdles.

#### *Fragmentation of climate change and human rights laws*

The fragmentation of climate change and human rights laws has attracted the attention of the international legal community because it may create complex and sometimes conflicting relationships between climate change obligations and human rights obligations.<sup>99</sup>

First, from the perspective of climate change law, states may concentrate on actions to address climate change while overlooking systemic integration in the interpretation of states' obligations concerning climate change and human rights.<sup>100</sup> But some may challenge the existence of fragmentation, because international climate change documents advise member states on health impacts caused by climate change, thus linking climate change with public health. Even though the right to health is not explicitly mentioned in these documents, there seems to be room for right to health claims within the climate change regime. For example, article 3.1 of the UNFCCC states that "parties should protect the climate system for the benefit of present and future generations of humankind," where the protection of health—one of humankind's benefits—is

regarded as a necessary function of international climate change law.<sup>101</sup> The preamble to the Paris Agreement also requires parties to consider the right to health when taking action to address climate change.

However, it is questionable whether these provisions are sufficient to protect the right to health in the climate change regime due to the vagueness of states' responsibilities to protect public health in the context of climate change. For example, article 1 of the UNFCCC mentions the importance of minimizing the adverse effects of climate change on "human health and welfare." But article 3.4 specifically states that climate change measures "should be appropriate for the specific conditions of each Party ... taking into account that economic development is essential for adopting measures to address climate change," and article 4.1(f) specifies that a party's climate change responsibilities should take into account not only climate change considerations but also, "to the extent feasible, ... minimizing adverse effects on the economy, on public health and on the quality of the environment." According to these provisions, which are formulated in a rather open-ended manner, health is placed merely as a relevant consideration next to economic development and environmental quality, and wide discretion is left to state parties.<sup>102</sup>

Additionally, even if some courts start to consider changing the excessive emphasis on economic considerations, reducing the ignorance of health impacts in climate change policy, and adjusting the excessive margin of appreciation given to states, the basis of their decisions may be confined to the objectives set by the climate law. But the current objective of the climate change regime is generally to set solid evidence-based standards (for example, GHG emissions standards) for states to follow in the most cost-effective way.<sup>103</sup> As a result, even though climate change law refers to the conservation of human health, the right to health is merely a "reflex effect" of the implementation of climate change standards, and as such it may be sacrificed for greater economic interests.<sup>104</sup> For example, studies have shown that the health aspects of states' climate change measures still remain generally utilitarian,



relying on cost-benefit and other economic analyses regardless of the normative value of the right to health.<sup>105</sup>

To prevent a state from abusing its discretionary power, courts should use human rights norms and principles as interpretative tools when balancing public health and economic development concerns related to climate change measures.<sup>106</sup> Courts should also take note that ensuring the implementation of environmental standards set in climate laws, which are traditionally regarded as “pure” science, should not be viewed as equivalent to a state’s fulfillment of its right to health obligations relating to climate change.<sup>107</sup> Since human beings form part of the ecosystem that climate change law aims to maintain, it is important to evaluate whether climate change standards are sufficient to improve human rights and well-being.<sup>108</sup> Therefore, applying the right to health approach in addition to using the health-related provisions in climate change law (which focuses mostly on environmental, scientific, and economic issues) to scrutinize states’ adherence to their right to health responsibility to protect individuals or communities from health risks of climate change can provide an alternative that shifts the debate away from climate change science and onto the victims of climate change.<sup>109</sup>

Second, human rights law alone is not sufficient to protect the right to health in the climate change regime. For example, climate change issues, complicated by tensions between economic development, public health needs, human rights, and scientific uncertainty, cannot be addressed by individual states acting alone. This is why international climate change law is grounded in the need for mutual action.<sup>110</sup> But reciprocity is generally not taken into consideration in human rights law because one state’s respect for the right to health does not depend on, and may not be conditioned on, compliance by other states.<sup>111</sup> Critics thus argue that right to health claims in climate change litigation may oversimplify the highly complex problem of climate change and fail to give due consideration to the intrinsic value of the environment, which crosses national

borders.<sup>112</sup> In another example, individuals whose health is harmed by climate change and whose right to health is poorly protected are less likely to be well equipped to adapt to climate change effects or to lobby for government or international action to mitigate climate change. This vicious cycle, which links poor climate change governance, weak human rights protections, and vulnerability to climate change-related harm, demonstrates a deep and complex interlinkage between climate change and the right to health.<sup>113</sup>

In response to this challenge, climate-related health risks should not be regarded as merely another addition to the list of health hazards in the right to health regime.<sup>114</sup> Because the negative effects of climate change and poor protection of the right to health are mutually reinforcing, climate change law should also be regarded as an important tool to assist right to health protection in the climate change era.

In conclusion, climate change mitigation and adaptation policies cannot be well developed, implemented, or assessed without closely linking climate change and the right to health in a mutually beneficial manner.<sup>115</sup> First, due to the dynamic nature of climate change with regard to complicated legal and socioeconomic determinants across jurisdictions, the impacts of climate change cannot be fully addressed through climate change law alone; its implementation requires the input of right to health values.<sup>116</sup> Second, a state’s right to health obligation to combat health threats caused by climate change cannot be reviewed only through the lens of the human rights regime since climate change is actually a combination of many distinct problems.<sup>117</sup> Finally, it is important to alleviate the effects of the fragmentation of climate change and human rights laws because the “separate spheres” conceptualization may result in conflicting goals and aims at the interface of the right to health and climate change.<sup>118</sup> Unnecessary bifurcations of overlapping climate change and human rights obligations could also lead to right to health infringements in order to uphold other rights or economic interests.<sup>119</sup>

### *The principle of progressive realization*

According to article 2(1) of the International Covenant on Economic, Social and Cultural Rights, the right to health is subject to the principle of progressive realization, where the state must take steps to the maximum of its available resources with a view to progressively achieving the full realization of the right. By using the progressive realization principle in the context of climate change, states can avoid their right to health obligation to reduce climate-sensitive health risks by arguing that climate change mitigation and adaptation actions go beyond their reasonable available resources.<sup>120</sup> States can also justify their passive responses to climate change (and its impacts on health) by arguing that the pursuit of economic development (for example, by relaxing GHG emissions standards) ought to receive higher priority than the prevention of prospective health harms because the latter needs to be fulfilled only progressively.<sup>121</sup> Additionally, the progressive realization principle can be further reinforced in the climate change regime because the state's discretionary power is generally recognized in climate change law. For example, the UNFCCC grants states broad discretion in terms of the implementation of measures to mitigate and adapt to climate change.<sup>122</sup> In *Massachusetts v. Environmental Protection Agency*, the US Supreme Court also focused on the degree of discretionary power that the Environmental Protection Agency is entitled to exercise to regulate GHG emissions.<sup>123</sup>

However, the principle of progressive realization does not give states unfettered discretion.<sup>124</sup> The state still bears the burden of ascertaining, based on appropriate indicators and benchmarks, whether it is progressively protecting the right to health from the negative impacts of climate change.<sup>125</sup> The state also needs to prove that any retrogressive climate change protection measures that may cause negative health impacts “have been introduced after the most careful consideration of all alternatives” and “are duly justified by reference to the totality of the [right] ... in the context of the full use of the State party's maximum available resources.”<sup>126</sup> But in some cases, a state's claims of insufficient resources to justify its noncompliance with human rights

law in its climate change policies are made without informing the state's populace of its climate change strategies, indicators, and time-bound targets.<sup>127</sup> Without such information, it is difficult, if not impossible, to assess a state's progress in realizing the right to health under climate change threats.<sup>128</sup> The failure to make a transparent health impact assessment and the failure to set deliberate and concrete goals in climate change policies or decisions thus can be regarded as a right to health violation.<sup>129</sup>

Most importantly, the right to health includes some core obligations of immediate effect that are not subject to progressive realization, including ensuring access to essential food, basic shelter, and safe water; ensuring nondiscriminatory access to health care (especially for marginalized groups); and adopting national strategies to address public health concerns.<sup>130</sup> Considering that climate change affects these “minimum essentials” of the right to health, it is misleading to assume that the heterogeneous contents of that right are subject only to progressive realization when exploring the state's climate change responsibility in connection with the right to health. Failing to prevent, or tolerating the existence of, extremely grave risks imposed by climate change to these nonderogable minimum essentials, especially to vulnerable people, should be regarded by courts as a right to health violation.<sup>131</sup>

Concerns about accepting progressive realization and recognizing nonderogable minimum essentials of the right to health in different climate change scenarios may boil down to the administration's or the legislature's evaluation of the trade-offs and their adoption of precise regulations and standards governing climate change. Therefore, courts may be reluctant to enforce right to health protections or to determine the minimum essentials for fear of interfering with the lawful discretion given to policy makers, as shown in *Clean Air Foundation Limited and Gordon David Oldham*.<sup>132</sup> In this case, the court recognized the state's right to health obligation to combat climate change but nonetheless held that the state's decision to set low climate change standards was an issue of political governance rather than of legality.<sup>133</sup>

However, determining progressive realization

and minimum essentials of the right to health in connection with climate change raises not only political but also legal issues. Whether the climate change measures are reasonable within maximum available resources as described by the “progressive realization” principle or whether the “minimum essentials” are properly assigned are legal issues and subject to judicial review.<sup>134</sup> Because progressive realization and the minimum essentials are associated with the determination of the minimum decencies of human dignity and the minimum core of the state’s obligation concerning the right to health, they set the threshold of lawfulness/unlawfulness.<sup>135</sup> But this article is not proposing that the courts play a role as deputy legislators or administrators in the climate change regime. To clarify the minimum essentials of the right to health in the climate change regime and determine their scope, a balance between legislative/administrative action and judicial intervention needs to be explored and established.

### *Causal complexity in climate change*

Characterizing climate change harms to health in legal terms is a complex task because climate change occurs as a collective result of multiple elements regardless of national boundaries, such that connecting cause and effect is complex.<sup>136</sup> To complicate matters further, linking climate change to right to health claims is controversial because traditional right to health jurisprudence focuses on impacts faced by individuals rather than populations, and is tailored to a narrow set (biomedical model) of hazards. As a result, right to health violations cannot be promptly assessed.<sup>137</sup> For example, states’ violations of human rights resulting from GHG emissions are difficult to prove because (1) it is difficult to disentangle the complex causal relationships that link the GHG emissions of a particular country to a specific effect; (2) global warming is often one of several climate change-related contributing factors to human health harms; and (3) adverse effects of global warming often give rise to future impacts, whereas human rights violations are normally established after the harm has occurred.<sup>138</sup>

To address these challenges, several steps need to be taken to improve the protection of the right to health as it relates to climate change. First, guaranteeing accessibility to relevant information can help disentangle the complex causal links between a state’s engagement in climate change action/inaction and right to health infringements by providing an implicit reference to causation.<sup>139</sup> The state’s obligation to inform or educate the public about a broad range of health-related climate change issues and make such information accessible to individuals can be derived from paragraph 12(b) of the CESCR’s General Comment 14. More specifically, due to the complex and arcane characteristics of climate change knowledge and the obscure and indirect relationship between climate change and health, governments have leeway to use uncertain causation as an excuse to avoid their human rights responsibilities regarding climate change. Disclosure of health-relevant climate change information (such as geographic reach, assessed severity, and length of the negative climate change impacts on human health) can prevent the state’s exercise of paternalism and promote individuals’ understanding of and autonomous consent to climate change policies that may impact their health.<sup>140</sup>

Second, when causation is difficult to prove, after the plaintiff presents a *prima facie* case of climate change factors (such as warming or increased storms) and injuries, the burden of proof for causation in human rights-relevant climate change cases should be shifted to the government. The international community, governments, and courts should recognize that the evidentiary standard in climate change cases is too high for individuals to prove that their right to health is violated or threatened by climate change or by the state’s engagement in action/inaction in mitigating or adapting to climate change.<sup>141</sup> Therefore, instead of requiring injured individuals to prove a causal relationship between health harms and climate change, the burden should shift to the government to exculpate itself. Reversing the burden of proof in climate change cases is justified because the government has the resources to access, collect, and analyze the information and to understand the long-term im-

plications of climate change. For example, in *Tătar v. Romania*, the European Court of Human Rights ruled that the applicant was exempt from the burden of proof and did not have to prove the existence and certainty of a risk.<sup>142</sup> According to the court, the state was in a better position than the individual to provide evidence to prove a lack of causation and show that it had fulfilled its obligations.<sup>143</sup>

In many cases, courts have used different legal arguments to increase the state's burden of proof in climate change litigation. The right to health approach provides one alternative based on the widely recognized human rights framework, where the plaintiff needs to prove only that the state's lack of action to mitigate or adapt to climate change breached an international obligation from a right to health perspective, rather than adduce evidence of causal elements.<sup>144</sup> This approach was adopted by the *Urgenda* court to shift the burden of proof on causation from the plaintiff to the state.<sup>145</sup>

Third, despite theoretical notions that climate change and human rights laws should provide an objective standard by which to assess health-climate causality, what constitutes governmental compliance with human rights norms as they relate to climate change can be determined in relation to how other states are behaving, where the worst offenders can be targeted as actors violating human rights.<sup>146</sup> Namely, if a government is engaging in climate change-inducing practices that are out of step with other states, the government should be more likely to be found responsible for health impacts of climate change and to be in violation of the right to health.

#### *Attribution of responsibility*

In climate change litigation, the identification requirement—the victim must specifically identify the defendant and show that the defendant's activities caused the harm—can be unachievable.<sup>147</sup> This is because different states have made different contributions to climate change (for example, different shares of GHG emissions) and may debate the precise allocation of their responsibility.<sup>148</sup>

However, it is not necessary to accurately examine each state's individual contributions to

climate change when assigning the right to health responsibility related to climate change.<sup>149</sup> In most cases, victims of climate change do not need to meet the identification requirement to evaluate whether a state has violated its right to health obligations. A state can be found to have infringed on the right to health insofar as it can be proved that it is complicit (regardless of its “contribution ratio”) in climate change due to its actions or omissions, and that such climate change is scientifically proven to impose general (no need to be specific) negative impacts on human health. For example, in *Urgenda*, a causal link between Dutch GHG emissions and global climate change was assumed to exist because “the fact that [the state's GHG emissions] are limited on a global scale does not alter the fact that these emissions contribute to climate change.”<sup>150</sup> Therefore, at least at the aggregate state level, the state's proportionate contribution to climate change is irrelevant with respect to the state's duty of care.<sup>151</sup>

Furthermore, instead of focusing on the causal analysis and identification requirements, courts should recognize the general health threats posed by climate change.<sup>152</sup> Similar arguments can also be found in *Tătar* and *Asselbourg v. Luxembourg*, where the European Court of Human Rights focused on the probability of the occurrence of a human rights violation based on the precautionary principle, rather than on proof of specific causation or the identification requirement.<sup>153</sup> The precautionary principle envisages an “anticipatory preventive action” to prevent damages, even if there is no conclusive scientific proof relevant to a causal relationship between a cause and a harm.<sup>154</sup> In *Native Village of Kivalina v. ExxonMobil Corp.*, a US district court required evidence of a substantial likelihood, rather than a scientific certainty, that the defendant's effluent caused the plaintiff's harm.<sup>155</sup> In addition to climate protection, precautionary measures are also regarded as a key aspect of the protection of the right to health. For example, during the COVID-19 pandemic, states are required to take precautionary measures to prevent potentially dangerous effects of the virus even when there is only a preliminary uncertain scientific evaluation.<sup>156</sup> Therefore, in a climate change case

(especially in cases of serious or irreversible health damage), the state should not be allowed to avoid its obligations toward right to health impacts due to climate change merely because of a lack of full scientific certainty. Focusing on the general context of human rights damages ensuing from climate change does not mean that the causal analysis or identification requirements should be abandoned, but rather that population-based probabilistic, statistical evidence should be included in the decision-making process.<sup>157</sup>

## Conclusion

Climate change and the right to health do not occupy entirely separate legal spheres.<sup>158</sup> A state's failure to mitigate or adapt to climate change, for example, may be tantamount to not preventing, treating, or controlling disease, a violation of the right to health under article 12 of the International Covenant on Economic, Social and Cultural Rights. Climate change laws and policies should thus be evaluated with attention to their impacts on the right to health and to the norms of international human rights law. Additionally, because the right to health embraces the maintenance of a safe, healthy, and sustainable environment (regarded as underlying determinants of health), the right to health can serve as a bridge between the domains of climate change and human rights, may be useful to determine the scope of the state's legal obligations to mitigate or adapt to climate change, and may empower individuals and communities to demand state action on climate change to protect their right to health.<sup>159</sup>

However, there are still many challenges to linking climate change and human rights. For example, the state's right to health obligation is defined with reference to a limited category of rights holders—typically those within the state's territory or jurisdiction.<sup>160</sup> Traditional human rights law does not require states to respond to human rights threats wherever they arise.<sup>161</sup> Climate change and actions to address it, however, are not restricted to a territory or jurisdiction. Even though there is still a long way to go, understanding the limitations of and potential for the application of the right

to health in the climate change domain can help optimize the effectiveness of human rights-based arguments in climate change litigation.

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