

THE INDIRECT IMPACTS OF CLIMATE CHANGE LITIGATION: ITS POTENTIAL TO PREVENT CONFLICT AND ATROCITY CRIMES ELSEWHERE

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Climate change has been the subject of much debate as a threat multiplier to international peace and security. The risk that climate change might adversely affect conflict situations has generally been accepted. Its role towards the exacerbation of risk factors for atrocity crimes has, however, received little attention to date. As the number of climate change litigation cases increases internationally, it raises questions as to the potential impact of climate litigation, not only vis-à-vis climate action, but also beyond. This article considers whether effective climate litigation may prevent conflict and atrocity crimes elsewhere. It concludes that, where climate litigation is successful in achieving accountability for the implementation or enforcement of States' climate commitments, it may have an indirect impact on alleviating the outbreak of conflict and contributing towards the prevention of atrocity crimes.

I INTRODUCTION

The initial goal of limiting temperature increases to less than 1.5°C above pre-industrial levels seems less and less attainable.¹ Consequently, plaintiffs are taking action through international climate change and environmental protection litigation on the basis of tort law, domestic and international human rights law, international environmental law and customary international law.² The last

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¹ *Paris Agreement under the United Nations Framework Convention on Climate Change*, opened for signature 22 April 2016, [2016] ATS 24, 3156 UNTS 79 (entered into force 4 November 2016) ('*Paris Agreement*'). See also United Nations Environment Programme, *Emissions Gap Report 2022: The Closing Window — Climate Crisis Calls for Rapid Transformation of Societies* (2022) ('*Emissions Gap Report 2022*').

² While debates exist over definitions applied in climate change law, this article follows the definition for 'climate change litigation' (also 'climate litigation') adopted in the policy report on global trends in climate change litigation. Climate change litigation thereby includes 'cases before

decade has seen an influx of climate litigation before both national and international bodies, which has spurred commentary and scholarly analysis on specific high-profile cases and their potential impact on international environmental law and climate change mitigation.³ Climate litigation has been recognised for its potential to affect ‘the outcome and ambition of climate governance’.⁴ It has the potential to challenge States’ responses and enforcement of climate commitments.⁵ Cases with a strategic focus potentially enable claimants to influence a ‘broader societal shift’ including the advancement of government and company climate policies, challenging overall responses to climate change, and advancing public awareness and action.⁶

Climate change has been the subject of much debate as a threat multiplier to conflicts and international peace and security. Research on the impact of climate change on peace and security has also grown considerably. Climate change has been suggested as a risk for ‘conflicts, geo-political rivalries, critical infrastructure, terrorism or human security’.⁷ Some have identified a strong link between extreme weather events and the subsequent outbreak of violent conflict,⁸ while others have expressed doubts in relation to the explanatory models utilised and stress the need for further research.⁹ Although some conflict may be linked to weather events, further research is required into whether those instances were the result of climate change.

Multiple studies and reports suggest that climate change and environmental degradation have the potential to adversely affect conflict situations and also, separately, exacerbate risk factors for genocide, war crimes and crimes against humanity (referred to in combination as ‘atrocities crimes’) including humanitarian crises as a result of natural disasters, economic instability, and

judicial and quasi-judicial bodies that involve material issues of climate change science, policy, or law’: Joana Setzer and Catherine Higham, Grantham Research Institute on Climate Change and the Environment, *Global Trends in Climate Change Litigation: 2022 Snapshot* (Policy Report, 2022) 6 (*‘Global Trends 2022 Report’*). For academic debates see, eg, Jacqueline Peel and Hari M Osofsky, ‘Climate Change Litigation’ (2020) 16(1) *Annual Review of Law and Social Science* 21; Benoit Mayer, ‘Prompting Climate Change Mitigation Through Litigation’ (2022) 72(3) *International and Comparative Law Quarterly* 233, 233.

³ See, eg, Mayer (n 2).

⁴ Priyadarshi Shukla et al (eds), Intergovernmental Panel on Climate Change, *Climate Change 2022: Mitigation of Climate Change* (Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2022) 46 (*‘IPCC WGIII Sixth Report’*).

⁵ *Global Trends 2022 Report* (n 2) 1, 3.

⁶ *Ibid* 1.

⁷ François Gemenne et al, ‘Climate and Security: Evidence, Emerging Risks, and a New Agenda’ (2014) 123(1) *Climatic Change* 1, 3.

⁸ Solomon M Hsiang et al, ‘Quantifying the Influence of Climate on Human Conflict’ (2013) 341(6151) *Science* 1212.

⁹ Tor A Benjaminsen et al, ‘Does Climate Change Drive Land-Use Conflicts in the Sahel?’ (2012) 49(1) *Journal of Peace Research* 97; Andrew R Solow, ‘A Call for Peace on Climate and Conflict’ (2013) 497 *Nature* 179; H Buhaug et al, ‘One Effect to Rule Them All? A Comment on Climate and Conflict’ (2014) 127(3–4) *Climatic Change* 391.

increased scapegoating due to resource scarcity.¹⁰ It is worth noting that, while conflict also exacerbates the risk of atrocity crimes, the commission of atrocity crimes is not limited to conflict situations, nor are atrocity crimes committed in every conflict situation. Projections nevertheless suggest that disputes and violent conflict over natural resources will increase as a result of climate change impacts such as environmental degradation and large-scale migration, which may compound the risk of atrocity crimes.¹¹ Environmental considerations and protections have become increasingly important to the conflict and atrocity prevention function of international human rights and humanitarian law. However, the accurate prediction of the impacts of climate change — and of climate litigation — on conflict and atrocity crimes, remains difficult due to data gaps and scant evidence of causal links.

The literature on atrocity prevention has given limited attention to the potential influence of climate litigation. This is surprising as climate change is frequently considered for its potential to worsen conflict and potentially lead to the commission of atrocity crimes.¹² As climate change can be an exacerbating and contributing factor to conflict and situations at risk of atrocity crimes, and as climate litigation is a legal tool available to address climate change, the aim and purpose of this article is to explore the potential impact of climate litigation on the alleviation of conflict based on States' obligations for climate mitigation. Section II explores the potential link between climate change, conflict, and atrocity crimes. While it has generally been accepted that climate change can adversely affect conflict situations, little research exists vis-à-vis its impact on situations at risk of atrocity crimes. The section finds that climate change may be an exacerbating risk factor for existing tensions, which may result in societal, political or violent conflict increasing the risk of the commission of atrocity crimes. Climate change appears to act as a threat multiplier rather than a direct cause of conflict and atrocity crimes. Subsequently, section III considers the potential role of climate litigation in alleviating conflict and contributing to the prevention of atrocity crimes. It does so by examining the efficacy of climate litigation generally, before drawing connections to any potential implications for conflicts and atrocity crimes. It considers specific actions required as a result of climate litigation and whether and how these actions or policy changes align with measures that may reduce the risk of atrocity crimes. The article concludes that,

¹⁰ See, eg, Lyal S Sunga, 'Does Climate Change Worsen Resource Scarcity and Cause Violent Ethnic Conflict?' (2014) 21(1) *International Journal on Minority and Group Rights* 1; Hsiang et al (n 8); *The Environment and Human Rights (Advisory Opinion)* (Inter-American Court of Human Rights, Series A No 23, 15 November 2017); various reports by the Intergovernmental Panel on Climate Change ('IPCC'). For more exacerbated risk factors, see section II.

¹¹ Oli Brown, 'Heating Up: Mediation and Climate Change — Oslo Forum Reflections', *Centre for Humanitarian Dialogue* (online, 8 July 2019).

¹² See, eg, Sunga (n 10); Banjaminsen et al (n 9); Solow (n 9); Buhaug et al (n 9); Zorzeta Bakaki and Roos Haer, 'The Impact of Climate Variability on Children: The Recruitment of Boys and Girls by Rebel Groups' (2022) 60(4) *Journal of Peace Research* 634.

where climate litigation is successful as an instrument of achieving the accountability for the implementation or enforcement of States' climate commitments, it may have an indirect impact on alleviating the outbreak of conflict and contribute towards the prevention of atrocity crimes elsewhere.

II THE NEXUS BETWEEN CLIMATE CHANGE AND CONFLICT AND ATROCITY CRIMES

Concerns about climate change date back decades. However, action taken at the international level has been slow and disjointed. International bodies, such as the Intergovernmental Panel on Climate Change ('IPCC') have long warned the international community of the rising global surface temperature resulting in unexpected or exacerbated droughts and heat waves; the absorption of 80 per cent of increased heat around the globe by the ocean; changes in rainfall patterns; rising sea levels and melting glaciers and icecaps; and an increased frequency of extreme weather events, among other consequences.¹³ Multiple international treaties, respective customary international law and numerous soft-law instruments exist that focus on the protection of the environment and the mitigation of climate change, yet climate mitigation action by States remains largely unsatisfactory.¹⁴

To fulfil climate mitigation obligations assumed by States, it is necessary for States and policy makers to develop strategies to reduce climate change and its adverse effects, including a possible nexus between climate change and increased risks of conflict and atrocity crimes. This section explores whether a potential connection between climate change on the one hand, and conflict on the other, exists, in order to determine, in turn, whether climate change and environmental degradation may be viewed as possible risk factors for atrocity crimes. Academic commentary exists that raises concerns for the exacerbation of violent conflict more generally as a consequence of climate change.¹⁵ Limited commentary exists in relation to atrocity crimes specifically.¹⁶ While conflict can exacerbate the risk for atrocity crimes, the commission of atrocity crimes is not limited to conflict situations, nor are atrocity crimes committed in every conflict situation. It nevertheless remains necessary to consider the adverse effects of climate change on conflict situations to appreciate its wide potential impacts and potential role in the exacerbation of situations at risk of the commission of atrocity crimes.

¹³ Susan Solomon et al (eds), Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis* (Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007) 252.

¹⁴ See, eg, *Emissions Gap Report 2022* (n 1); António Guterres, 'The State of the World' (Special Address to the World Economic Forum Annual Meeting, Davos, 18 January 2023).

¹⁵ See, eg, Banjaminsen et al (n 9); Solow (n 9); Buhaug et al (n 9).

¹⁶ See, eg, Sunga (n 10); Bakaki and Haer (n 12).

Throughout the decades, multiple resolutions and reports by international bodies have suggested a nexus and potential causal link between climate change and adverse risks, which may result in violent or armed conflict, particularly where governmental infrastructures are unable to mitigate or address environmental stresses effectively.¹⁷ Former United Nations ('UN') Secretary-General Kofi Annan forewarned that:

we can see real risks that resource depletion, especially freshwater scarcities, as well as severe forms of environmental degradation, may increase social and political tensions in unpredictable but potentially dangerous ways.¹⁸

Importantly, the Millennium Report also famously queried the complex and sensitive relationship between humanitarian intervention and State sovereignty in cases of 'gross and systematic violations of human rights that offend every precept of our common humanity' — a stepping stone towards the adoption of the political principle of the Responsibility to Protect ('R2P') and States' obligations vis-à-vis atrocity crimes.¹⁹ Where genocide, war crimes, crimes against humanity, or ethnic cleansing, threaten a State's vulnerable population, it has the responsibility to protect its population.²⁰ This responsibility exists notwithstanding the underlying cause(s) for such an at-risk situation, including exacerbated risks through climate change. In accordance with the political principle, the international community, in turn, is prepared to take collective action where a State is manifestly failing to protect its population, beyond its responsibility to 'use appropriate diplomatic, humanitarian and other peaceful means'.²¹ Notwithstanding its endorsement by the UN General Assembly in 2005, in practice, R2P, and any associated 'preparedness' by the international community 'to take collective action', is supported by some States and not others, with frequent reluctance by the international community to take such action in

¹⁷ United Nations General Assembly, *World Charter for Nature*, GA Res 37/7, 37th sess, UN Doc A/RES/37/7 (28 October 1982) preamble; United Nations General Assembly, *Report of the World Commission on Environment and Development*, GA Res 42/427, 42nd sess, A/RES/42/427 (4 August 1987) Chapter 11 [5]–[6] ('Brundtland Report').

¹⁸ Kofi Annan, *We the Peoples: The Role of the United Nations in the 21st Century*, UN Doc A/54/2000 (27 March 2000) 32 ('Millennium Report').

¹⁹ Ibid 48. The Responsibility to Protect ('R2P') is a political principle unanimously adopted by 150 Heads of State and Government at the 2005 World Summit. States thereby accepted responsibility for the protection of their populations from genocide, war crimes, crimes against humanity and ethnic cleansing. The primary responsibility resides with the individual State while the international community shares this responsibility as far as providing appropriate assistance through diplomatic, humanitarian, or other peaceful means in accordance with Chapters VI and VIII of the UN Charter. Should a State be manifestly failing to protect its population, the international community is prepared to take timely and decisive collective action in accordance with Chapter VII of the UN Charter. United Nations General Assembly, *2005 World Summit Outcome*, GA Res 60/1, 60th sess, UN Doc A/RES/60/1 (16 September 2005).

²⁰ United Nations General Assembly, *2005 World Summit Outcome*, GA Res 60/1, 60th sess, UN Doc A/RES/60/1 (16 September 2005) [138].

²¹ Ibid [139].

accordance with the principle.²² In any case, the exacerbating factors for genocide, war crimes, crimes against humanity, and ethnic cleansing are irrelevant; the underlying responsibility of the individual State, and the international community's 'preparedness' as accepted within the R2P principle remains.

A more direct link between climate change and the outbreak of armed conflict was drawn in the case of Darfur, Sudan:

It is no accident that the violence in Darfur erupted during the drought. Until then, Arab nomadic herders had lived amicably with settled farmers. ... But once the rains stopped, farmers fenced their land for fear it would be ruined by the passing herds. For the first time in memory, there was no longer enough food and water for all. Fighting broke out. By 2003, it evolved into the full-fledged tragedy we witness today.²³

Similar assessments on the nexus between climate change and the increased risk of conflict were made by the United Nations Environmental Program ('UNEP') vis-à-vis Sudan,²⁴ a review commissioned by the United Kingdom in relation to West Africa, the Nile Basin and Central Asia,²⁵ and by various non-governmental organisations vis-à-vis 'Darfur, the Sahel and elsewhere'.²⁶ Multiple studies exist linking environmental stresses and resource scarcity or surplus to a worsening of local conflicts and enhanced displacement risks.²⁷ Other academic commentary links climate change to increased societal and political instability, violent conflict, displacement or the potential of increased recruitment of children by rebel groups.²⁸ In 2011, the United Nations Development Programme's ('UNDP') report drew a clear connection between climate change, resource scarcity and conflict:

An estimated 40 percent of civil wars over the past 60 years are associated with natural resources, and since 1990 at least 18 violent conflicts have been fuelled by the exploitation of natural resources and other environmental factors. ... For example, greater variability in rainfall increases the risk of civil conflict, particularly in Sub-

²² Notably, some Latin American, Arab and African delegates held in 2008 that R2P had been rejected at the 2005 World Summit and had neither been accepted or adopted by the United Nations General Assembly. See UN GAOR, 5th Comm, 63rd sess, 28th mtg, UN Doc GA/AB/3837 (4 March 2008).

²³ Ban Ki-Moon, 'A Climate Culprit in Darfur', *The Washington Post* (online, 16 June 2007) <<https://www.un.org/sg/en/content/sg/articles/2007-06-16/climate-culprit-darfur>>.

²⁴ United Nations Environment Program, *Sudan Post-Conflict Environmental Assessment* (Synthesis Report, 2007).

²⁵ Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 2006).

²⁶ See generally International Crisis Group, 'Climate, Environment and Conflict' (Web Page) <<https://www.crisisgroup.org/future-conflict/climate-environment-and-conflict>>; Global Witness, 'Challenging Abuses of Power to Protect Human Rights and Secure the Future of our Planet' (Web Page) <www.globalwitness.org/campaigns/conflict>. See also Sunga (n 10) 12.

²⁷ See, eg, in relation to Bangladesh: Parvin Sultana and Paul M Thompson, 'Adaptation or Conflict? Responses to Climate Change in Water Management in Bangladesh' (2017) 78 *Environmental Science and Policy* 149. In relation to Afghanistan: Andrej Prívara and Magdaléna Prívarová, 'Nexus between Climate Change, Displacement and Conflict: Afghanistan Case' (2019) 11(20) *Sustainability* 5586.

²⁸ See, eg, Bakaki and Haer (n 12).

Saharan Africa, where a 1°C rise in temperature is associated with a greater than 10 percent increase in the likelihood of civil war the same year. Recent episodes support the link. Competition over land contributed to post-election violence in Kenya in 2008 and to tensions leading to the 1994 genocide in Rwanda. Water, land and desertification are major factors in the war in Darfur, Sudan. In Afghanistan conflict and the environment are caught up in a vicious cycle — environmental degradation fuels conflict, and conflict degrades the environment.²⁹

Similarly, the Inter-American Court of Human Rights ('IACtHR') concurred with previous findings of international bodies and judicial organs finding that:

environmental threats ... can affect, directly or indirectly, the effective enjoyment of concrete human rights affirming that ... ii) climate change has very diverse repercussions on the effective enjoyment of human rights, like the rights to life, health, food, water, shelter and free determination, and iii) 'environmental degradation, desertification and global climate change are exacerbating poverty and despair, with negative consequences for the fulfillment of the right to food, especially in developing countries'.³⁰

Such exacerbated poverty and despair may also lead to the increase of natural disasters, further affecting resource scarcity, societal conflict over resources and other factors that may increase the likelihood of conflict as well as atrocity crimes. In fact, resource scarcity and the resulting competition over resources function as a 'threat multiplier', exacerbating other risks including economic instability, corruption, and degradation of human rights, which may place vulnerable populations at an elevated risk of atrocity crimes.³¹ The UN General Assembly recently reiterated that the adverse impacts of climate change disproportionately affect the most vulnerable, posing an 'ever-greater social, cultural, economic and environmental threat'.³² A recent report on Yemen, for example, found that the State is 'facing one of the worst humanitarian crises in the world' and suffers from the commission of war crimes and crimes against humanity 'due to a combination of prolonged conflict, economic crisis and recurrent climate change-related natural hazards'.³³ Climate change is linked to the exacerbation of existing vulnerabilities within a society. While there may be many risk factors, economic and societal impacts of climate change and environmental degradation

²⁹ United Nations Development Programme, *Human Development Report 2011 — Sustainability and Equity: A Better Future for All* (New York, 2011) 59 ('Human Development Report 2011').

³⁰ *The Environment and Human Rights (Advisory Opinion)* (n 10) [54], citations omitted.

³¹ *Human Development Report 2011* (n 29) 59; Sunga (n 10) 14.

³² United Nations General Assembly, *Request for an Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change*, GA Res 77/276, 77th sess, UN Doc A/RES/77/276 (29 March 2023). In adopting this resolution, the General Assembly requested an advisory opinion from the International Court of Justice ('ICJ') on the obligations of States with respect to climate change. See also United Nations General Assembly, *Request for an Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change*, 77th sess, Agenda Item 70, UN Doc A/77/L.58 (1 March 2023).

³³ Kyungmee Kim et al, Stockholm International Peace Research Institute, *Yemen: Climate, Peace and Security Fact Sheet* (Fact Sheet, June 2023) ('Yemen Factsheet').

warrant particular consideration vis-à-vis the risk of conflict and atrocity crimes.³⁴ However, it is also important to note that the causal link between climate change and conflict or atrocity crimes is not predetermined, linear, or direct.

Where effective democratic avenues are available — such as remedies to channel grievances over issues caused by climate change and environmental degradation — the outbreak of conflict, civil war or atrocity crimes is less likely.³⁵ Resilience of a population or State may be due to the establishment of legitimate and accountable infrastructures, frameworks, and national institutions, and enactment of legislation, that provide for respect of the rule of law and human rights, without discrimination; the elimination of corruption; and the management of diversity. Whether threat multipliers contribute to and potentially exacerbate tensions that evolve into conflict and the commission of atrocity crimes depends, to a large extent, on the affected society's resilience.³⁶ Vulnerable societies with a lack of, or insufficient overall response to, climate change are likelier to engage in violent conflict as a result of the effects of climate change.³⁷ In some cases, increased tension and conflict may also lead to the degradation of environmental governance, leaving populations vulnerable to increased disputes over natural resources.³⁸ The IPCC suggests that '[c]limate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers of these conflicts such as poverty and economic shocks',³⁹ and that its impacts may amplify or aggravate 'existing tensions within and between communities' or States.⁴⁰

On the other hand, other authors note that a very limited number of wars have directly been caused by climate change, environmental degradation or their effects,⁴¹ or that environmental stresses including resource scarcity play a less significant role as risk factors for conflict and atrocity crimes than economic or

³⁴ See remainder of this Part.

³⁵ Sunga (n 10) 16; Sultana and Thompson (n 27).

³⁶ Sultana and Thompson (n 27).

³⁷ T Carleton et al, 'Conflict in a Changing Climate' (2016) 225(3) *The European Physical Journal Special Topics* 489; Dennis M Mares and Kenneth W Moffett, 'Climate Change and Interpersonal Violence: A "Global" Estimate and Regional Inequities' (2016) 135(2) *Climatic Change* 297.

³⁸ *Yemen Factsheet* (n 33).

³⁹ Christopher B Field et al (eds), Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation, and Vulnerability* (Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014) 20.

⁴⁰ Hans-Otto Pörtner et al (eds), *Climate Change 2022: Impacts, Adaptation and Vulnerability* (Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2022) 1190 ('*IPCC WGII Sixth Report*'); Kendra Sakaguchi et al, 'Climate Wars? A Systematic Review of Empirical Analyses on the Links between Climate Change and Violent Conflict' (2017) 19(4) *International Studies Review* 622.

⁴¹ See, eg, Simon Dalby, 'Peacebuilding and Environmental Security in the Anthropocene' in Didier Péclard (ed), *Environmental Peacebuilding: Managing Natural Resource Conflicts in a Changing World* (Swisspeace Annual Conference 2007 (Swisspeace Publications, 2009) 10.

political risk factors.⁴² In actuality, conflict causation is multi-pronged and unlikely to be entirely attributable to a sole factor. Whether a concrete and direct causal link between climate change and the increased risk of conflict or atrocity crimes exists remains inconclusive on the basis of available evidence. Frequently, such a direct nexus appears to have only been assumed.⁴³

While climate change and environmental degradation are therefore not directly identified as risk factors for atrocity crimes in commentary, the Framework of Analysis for Atrocity Crimes highlights that a 'humanitarian crisis or emergency, including those caused by natural disasters' may be a common risk factor for 'situations that place a State under stress and generate an environment conducive to atrocity crimes'.⁴⁴ Other risk factors, which may be potentially exacerbated by climate change, include 'economic instability caused by scarcity of resources or disputes over their use or exploitation' especially as they relate to food resources,⁴⁵ 'economic instability caused by acute poverty, ... or deep horizontal inequalities',⁴⁶ 'economic interests, including those based on the safeguard and wellbeing of elites or identity groups', corruption, poor governmental infrastructure and planning to account for effective responses to climate change impacts,⁴⁷ or 'control over the distribution of resources',⁴⁸ degradation of human rights or increased human rights violations, and a lack of mitigating factors.⁴⁹ All these risk factors, in themselves or combined, may contribute to situations at risk of atrocity crimes.⁵⁰ The risk factors for atrocity crimes are compounded by multi-hazard risks whereby their likelihood increases for vulnerable populations who experience 'repeated and successive climatic events' as a result of climate change.⁵¹ These risk factors are, however, more likely to lead to conflict and atrocity crimes where they occur in conjunction with other risk factors such as lack of or limited effective human rights mechanisms and

⁴² See, eg, Val Percival and Thomas Homer-Dixon, 'Environmental Scarcity: The Case of South Africa' (1998) 35(3) *Journal of Peace Research* 279, 314.

⁴³ IPCC WGII Sixth Report (n 40) 1190; Bakaki and Haer (n 12) 3; Buhaug (n 9); Jan Selby, 'Positivist Climate Conflict Research: A Critique' (2014) 19(4) *Geopolitics* 829.

⁴⁴ United Nations Office on Genocide Prevention and the Responsibility to Protect, *Framework of Analysis for Atrocity Crimes: A Tool for Prevention* (Framework, 2014) indicator 1.3 ('Framework of Analysis for Atrocity Crimes').

⁴⁵ Ibid indicator 1.7.

⁴⁶ Ibid indicator 1.9.

⁴⁷ Jan Selby et al, 'Climate Change and the Syrian Civil War Revisited' (2017) 60 (September) *Political Geography* 232.

⁴⁸ *Framework of Analysis for Atrocity Crimes* (n 44) indicator 4.2.

⁴⁹ See, eg, ibid indicators 6.1–6.11. Climate change may also indirectly impact other risk factors identified in the framework document in less obvious manners.

⁵⁰ Carleton et al (n 37); Nina von Uexkull et al, 'Drought, Resilience, and Support for Violence: Household Survey Evidence from DR Congo' (2016) 64(10) *Journal of Conflict Resolution* 1994; Tobias Ide et al, 'Multi-Method Evidence for When and How Climate-Related Disasters Contribute to Armed Conflict Risk' (2020) 62 (May) *Global Environmental Change* 102063.

⁵¹ IPCC WGII Sixth Report (n 40) 1178.

democratic governance, political instability, lack of trust in the ruling government and established infrastructures, and limited societal resilience.

Consequently, climate change may worsen existing tensions, which can lead to societal, political, or violent conflict.⁵² It is therefore necessary to consider climate change in connection with (un)sustainable (governmental) practices, (in)stability and (in)security and (a lack of) societal resilience *inter alia* to understand a specific situation at risk of conflict or atrocity crimes. Climate change and environmental degradation are more accurately characterised as important threat multipliers for conflict and atrocity crimes as opposed to a direct cause.

III THE POTENTIAL IMPACT OF CLIMATE CHANGE LITIGATION ON CONFLICTS AND ATROCITY CRIMES

While climate change may more accurately be characterised as a threat multiplier of existing tensions for conflict and risk factors indicating at-risk situations of atrocity crimes, climate litigation may still contribute to conflict alleviation and atrocity prevention in the long term. Logically, a main focus of climate litigation is the enforcement or enhancement of climate commitments with the aim of improving a State's response(s) to climate change. Notwithstanding this purpose, this section analyses the potential role of climate litigation in driving environmental change while considering the indirect impact of climate change on conflicts and situations at risk of atrocity crimes beyond a State's own territory. It considers specific actions required as a result of climate litigation, and whether and how these actions or policy changes align with measures that may reduce the risk of atrocity crimes. Initially, doubts were raised by some in relation to the efficacy of litigating climate change cases before domestic courts as opposed to regional or international human rights dispute-settlement mechanisms,⁵³ or questioned the effectiveness of climate litigation to compel climate responses and overall climate policy in the first instance.⁵⁴ However, domestic climate litigation cases are now staggering in numbers and include extremely successful cases in

⁵² Luca Marchiori et al, 'The Impact of Weather Anomalies on Migration in Sub-Saharan Africa' (2012) 63(3) *Journal of Environmental Economics and Management* 255.

⁵³ Timo Koivurova, 'International Legal Avenues to Address the Plight of Victims of Climate Change: Problems and Prospects' (2007) 22(2) *Journal of Environmental Law & Litigation* 267; Stephen Tully, 'The Contribution of Human Rights as an Additional Perspective on Climate Change Impacts within the Pacific' (2007) 5(1) *New Zealand Journal of Public and International Law* 169.

⁵⁴ Sunga (n 10) 22. See, eg, Eric A Posner, 'Climate Change and International Human Rights Litigation: A Critical Appraisal' (2007) 155(6) *University of Pennsylvania Law Review* 1925.

terms of requiring climate-mitigation action.⁵⁵ A recent snapshot of global trends in climate litigation identifies that, in total, 94.8 per cent of climate-litigation cases have been filed before domestic courts.⁵⁶ The remaining cases were filed before regional or international courts and tribunals including the European Court of Human Rights, the IACtHR, the European Court of Justice and the East African Court of Justice, and before quasi-judicial bodies such as the UN Human Rights Commission. The report demonstrates that most climate litigation cases are brought before domestic courts initially, while still appearing to achieve favourable outcomes.

The purposes of climate litigation are various and may include, among other things: the pursuit of accountability of States' for their failure to appropriately integrate climate change considerations into policies or facilities;⁵⁷ the enforcement of climate standards;⁵⁸ challenging governmental funding of projects not aligned with climate action and standards;⁵⁹ or compensation for damages suffered due to climate impacts.⁶⁰ Vis-à-vis its potential to contribute to the prevention of atrocity crimes, the main issue considered in this article is whether climate litigation has the potential to achieve effective climate policy and whether such policy change can be expected to reduce the risk of atrocity crimes.

'Framework' cases against States have increased in recent years. They address the 'design and overall ambition of [a State's] response to climate change and/or the adequacy of the implementation of a policy response'.⁶¹ Cases with a strategic focus potentially result in a 'broader societal shift' through the integration of climate standards and principles into governmental policies.⁶² The Global Trends 2022 Report indicates that 54 per cent of cases reviewed had

⁵⁵ See, eg, *Urgenda Foundation v State of the Netherlands* [2019] ECLI:NL:HR:2019:2007 (Supreme Court of the Netherlands) ('*Urgenda Case*'); *Asghar Leghari v Federation of Pakistan* [2018] WP No 25501/201 (The Lahore High Court) ('*Asghar Leghari Case*'); *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 ('*Rocky Hill Case*'); *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors* (No 6) [2022] QLC 21 ('*Waratah Coal Case*').

⁵⁶ *Global Trends 2022 Report* (n 2) 9. Out of 2002 total cases identified as at 31 May 2022, the vast majority of cases have been filed before United States domestic courts (71.2 per cent), followed by Australia (6.2 per cent), the United Kingdom (4.2 per cent) and the European Union (3 per cent), with cases from the Global South increasing in number as well.

⁵⁷ See, eg, David Markell and JB Ruhl, 'An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?' (2012) 64(1) *Florida Law Review* 15; United Nations Environment Programme, *Global Climate Litigation Report: 2020 Status Review* (2020).

⁵⁸ See, eg, Kim Bouwer and Joana Setzer, *Climate Litigation as Climate Activism: What Works?* (The British Academy, 2020).

⁵⁹ See, eg, *Africa Climate Alliance et al v Minister of Mineral Resources & Energy et al* [2022] ZAGPPHC 946 (High Court of South Africa); *Kang et al v KSURE and KEXIM* (2022) (Seoul District Court).

⁶⁰ See, eg, *Ministry of Environment and Forestry v PT Jatim Jaya Perkasa* [2017] Decision No 108/Pdt.G/2015/PN.Jkt.Utr (9 August 2017) (Supreme Court of Indonesia); *Oberlandesgericht (Higher Regional Court of Hamm)*, 2 O 285/15 *Luciano Lliuya v RWE AG*, 27 September 2021; *Ministério Público Federal v de Rezende* (2021) (7th Federal Environmental and Agrarian Court of the Judiciary Section of Amazonas).

⁶¹ *Global Trends 2022 Report* (n 2) 3.

⁶² *Ibid* 19.

favourable outcomes for climate-mitigation action, while another 10.5 per cent had neutral results or were withdrawn or settled.⁶³ However, the outcomes of climate-litigation cases may represent a more complex picture. Whether or not an outcome of a case is considered ‘favourable’ for the purposes of the policy report may change during the course of the proceedings as the report includes positive rulings on procedural issues as favourable as well as positive rulings on the merits of a case.⁶⁴ Additionally, where outcomes of cases may be deemed unfavourable, such cases may still have a positive outcome for the development and clarification of international environmental law,⁶⁵ or may result in more climate litigation. The report further suggests that ‘[e]ven cases that never make it to a full hearing may have an impact on decision-making processes’ driving climate policy.⁶⁶ This may be due to an increased understanding of legal interventions, which may result in high impact for change. Other research suggests that cases in which a (quasi-)judicial body identifies specific measures to be taken to fulfil climate mitigation obligations are likelier to succeed than cases which require a (quasi-)judicial body to consider an entity’s necessary level of implementation of its general mitigation obligation.⁶⁷ In fact, many climate litigation cases submitted based on the protection of human rights will have such atomistic elements allowing (quasi-)judicial bodies to consider the adoption of specific measures by States to fulfil their climate-mitigation obligations.⁶⁸

Specific climate-mitigation actions required by climate litigation are varied. In the *Urgenda Case*, for example, the Dutch domestic courts ordered the Dutch government to reduce the State’s emissions in its territory by 25 per cent by 2020 compared to 1990 levels to fulfil its international obligations.⁶⁹ Holistic judicial decisions, such as in the *Urgenda Case*, determine ‘the level of mitigation action that is required from the defendant’.⁷⁰ As opposed to ordering specific measures, the decision of how a State fulfils its domestic and international obligations and judicial decisions is left to the discretion of the respective government. However, other decisions may also be limited to the determination that mitigation action

⁶³ Ibid 3, 26. A quantitative review of all cases in the Climate Change Laws of the World (‘CCLW’) database where a decision on procedural questions or the merits was made was conducted. The CCLW database excludes United States cases.

⁶⁴ Ibid 47.

⁶⁵ See, eg, United Nations Committee on the Rights of the Child, *Decision Adopted by the Committee Under the Optional Protocol to the Convention on the Rights of the Child on a Communications Procedure Concerning Communication No. 104/2019*, UN Doc CRC/C/88/D/107/2019 (22 September 2021) (‘*Sacchi et al v Argentina et al*’).

⁶⁶ *Global Trends 2022 Report* (n 2) 3.

⁶⁷ Mayer (n 2).

⁶⁸ See, eg, United Nations Human Rights Committee, *Views Adopted by the Committee Under Article 5 (4) of the Optional Protocol Concerning Communication No. 3624/2019*, UN Doc CCPR/C/135/D/3624/2019 (21 July 2022) (‘*Daniel Billy et al v Australia*’).

⁶⁹ *Urgenda Case* (n 55).

⁷⁰ Mayer (n 2) 234.

taken by a defendant were insufficient without a determination of what may constitute a sufficient level of mitigation action.

In the successful case of *Asghar Leghari v Federation of Pakistan*, the Pakistani government was found to have been in violation of domestic mitigation policies, which had direct impacts on Pakistan's resource security.⁷¹ The court adopted a human-centred approach to environmental law and policy, and created a Climate Change Commission to oversee the effective implementation of these policies.⁷² Such mitigation action strengthens the transparency and accountability of public institutions and the perceived faith in them by civil society. Where climate mitigation action ensures that all levels of government subscribe and adhere to principles of transparency, and accountability in the design and delivery of public services, it also acts as a mitigating factor for conflict and atrocity crimes.⁷³ Where governmental actions and political authority on climate questions is exercised in a transparent manner and subject to the rule of law, with mechanisms to counter corruption in public institutions, the risk of atrocity crimes is reduced through enhanced trust by the population generally in public institutions.

In *Gloucester Resources Limited v Minister for Planning* (the 'Rocky Hill Case'),⁷⁴ climate change considerations and its adverse impacts led to the refusal of the 'Rocky Hill Mine Project'. In his reasoning, Preston CJ questioned the market substitution argument advanced by the defendant that developing States will approve new coal mines in Australia's stead. The approval of the mine would therefore not contribute to additional emissions. The court instead found that '[d]eveloped countries such as Australia have a responsibility, including under the *Climate Change Convention*,⁷⁵ the *Kyoto Protocol*,⁷⁶ and the *Paris Agreement*,⁷⁷ to take the lead in taking mitigation measures to reduce greenhouse gas ('GHG') emissions'.⁷⁸ Judicial decisions such as in the *Rocky Hill Case* are demonstrative of the reach domestic judicial decisions may have: on a domestic level, subsequent

⁷¹ *Asghar Leghari Case* (n 55).

⁷² *Ibid.*

⁷³ Asia-Pacific Centre for the Responsibility to Protect and Global Centre for the Responsibility to Protect, *A Framework for Action for the Responsibility to Protect: A Resource for States* (Report, 2023) action 1.2 ('*Framework of Action*'). The Framework for Action is a 'sister' document to the Framework of Analysis, and aims to provide for States on how to reduce or respond to risks of atrocity crimes. The Framework identifies 25 actions States may take once they have identified possible risk-factors. The Framework only makes one mention of the role of climate change on the prevention or response to atrocity crimes, climate change mitigation actions across the national, bilateral, regional, and the multilateral level have the potential to directly or indirectly contribute to the prevention of atrocity crimes through the reduction of their risk factors.

⁷⁴ *Rocky Hill Case* (n 55).

⁷⁵ *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).

⁷⁶ *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 162 (entered into force 16 February 2005).

⁷⁷ *Paris Agreement* (n 1).

⁷⁸ *Rocky Hill Case* (n 55) [539].

coal mining applications have been refused on similar reasoning,⁷⁹ and internationally, the decision may also be seen as imposing necessary measures to fulfil domestic and international environmental obligations.

Similar decisions also considered human rights in addition to climate change impacts.⁸⁰ Mitigation actions in line with human rights considerations contribute to the promotion of such rights specifically affected by climate change and human rights in the State generally. Where climate-change mitigation action contributes to the promotion of social and economic equality, for example, through the consideration of the impact of climate change on resources, such policy and action can have a direct contribution to the prevention of atrocity crimes. States may do so through the review and revision of laws and policies regulating the use of land and property or the management and distribution of natural resources, as well as the development of State-sponsored infrastructure in line with their domestic and international obligations.⁸¹ The implementation of policy reducing already vulnerable populations and at-risk States' exposure and vulnerability to adverse climate effects is beneficial.

In fact, the need for climate-mitigation action and policy has increasingly been linked to the fulfilment of human rights.⁸² States may focus on the development and strengthening of inhibitors of human rights and national early-warning systems for both climate change and atrocity crimes. The development of independent public institutions in the sphere of climate change strengthens the transparency and accountability of such institutions, contributing to positive civil society engagement. Leveraging such engagement and the strengthening of human rights in a State generally contribute to the reduction of risk factors including those for conflict and atrocity crimes. Other measures include the development and strengthening of national regulations and standards vis-à-vis the activities of corporations within their jurisdiction to ensure they do not compound the impacts of climate change. Where such measures are still deemed insufficient or ineffective, international human rights systems may be utilised to address the risks of climate change (and of atrocity crimes).⁸³

Judicial bodies may, however, also determine conditions, which are necessary for a State to implement, but which may not be sufficient to meet, its international mitigation obligations. Such atomistic cases may require the adoption of, or adherence to, procedural measures,⁸⁴ or substantive

⁷⁹ NSW Independent Planning Commission, 'Bylong Coal Project', (Case Status, 24 March 2022) <<https://www.ipcn.nsw.gov.au/cases/2018/10/bylong-coal-project>>.

⁸⁰ See, eg, *Waratah Coal Case* (n 55).

⁸¹ *Framework for Action* (n 73) action 1.1.

⁸² See, eg, *Daniel Billy et al v Australia* (n 68); *Sacchi et al v Argentina et al* (n 65).

⁸³ See, eg, *Framework for Action* (n 73) action 4.2.

⁸⁴ For example, the adoption of a specific and transparent national policy on climate change and its mitigation. See, eg, *Friends of the Irish Environment v Ireland* [2020] IESC 49, 2 (Supreme Court of Ireland).

measures.⁸⁵ A State's compliance with an atomistic judicial decision does not, however, necessarily result in compliance with its international obligations, particularly where the relevant measures are themselves ineffective.⁸⁶ As demonstrated above, climate change has the potential to exacerbate existing tensions and risk factors for atrocity crimes in at-risk States among vulnerable populations. It is possible for environmental policies or (in)action by a State or a collection of States to establish a causal chain to events in another State or region on the other side of the globe. It may also be possible to quantify the emissions of individual actors and therefore their contribution to extreme weather events such as floods, storms, heatwaves, and droughts, as well as gradual climate change impacts. Such attribution research may allow (quasi-)judicial bodies to determine whether the contribution of an individual State has increased the probability or the severity of a specific environmental event. For example, studies suggest that emissions from European Union Member States may have played a significant contribution towards the increased likelihood for Argentina's heatwave in 2013–14.⁸⁷

As climate change may have an indirect impact on conflicts and at-risk situations, just so may climate litigation that leads to favourable outcomes at the merit stage have indirect positive impacts on the alleviation of conflicts and the prevention of atrocity crimes across the globe. In such cases, multilateral cooperation and collaboration vis-à-vis mitigating actions is appropriate.⁸⁸ Indeed, climate litigation is 'nuanced and can have a variety of flow-on effects'.⁸⁹

However, more research is required to determine the effectiveness and direct and indirect impacts of climate litigation on advancing climate policy and action as well as the alleviation of conflict and prevention of atrocity crimes. Climate litigation is not only complex and faces more taxing issues in relation to the question of collective causation,⁹⁰ attribution, and potential reparation, but it also requires the formulation of a methodology to determine and assess effectiveness.⁹¹ Due to a lack of applied methodology in the discussion of implications of climate litigation, any policy changes or impact resulting from

⁸⁵ For example, ordering a government to adhere to a cap on emissions by taking 'all useful measures 'in adherence to a respective emissions budget': see, eg, Conseil d'État Rec Lebon [Council of State], *Grande-Synthe v France* [2021] Rec Lebon N° 427301.

⁸⁶ Mayer (n 2) 234.

⁸⁷ Natasa Nedeski and André Nollkaemper, 'A Guide to Tackling the Collective Causation Problem in International Climate Change Litigation', *EJIL:Talk!* (Blog Post, 15 December 2022) <<https://www.ejiltalk.org/a-guide-to-tackling-the-collective-causation-problem-in-international-climate-change-litigation/>>; Friederike E L Otto et al, 'Assigning Historic Responsibility for Extreme Weather Events' (2017) 7(11) *Nature Climate Change* 757.

⁸⁸ See, eg, *Framework for Action* (n 73) action 4.5.

⁸⁹ Joana Setzer and Rebecca Byrnes, Grantham Research Institute on Climate Change, *Global Trends in Climate Change Litigation: 2019 Snapshot* (Report, 2019) 10.

⁹⁰ Nedeski and Nollkaemper (n 87).

⁹¹ Jacqueline Peel et al, Children's Investment Fund Foundation, *Review of Literature on Impacts of Climate Litigation* (Report, 27 May 2022) 28.

climate litigation may be incremental or modest.⁹² Effectiveness through impact may be determined on the basis of governmental policy or behavioural change into legal compliance or observed through climate change itself. Although more research is required, recent global trends appear to suggest that climate litigation may be able to play an increasingly important role in achieving the implementation or enforcement of States' climate commitments, placing an emphasis on the importance of incorporating climate-mitigation and climate-policy decisions into policy.

While climate-mitigation action may not be an obvious choice of measures to address the risk of atrocity crimes, some may, however, nevertheless have the potential to reduce at-risk situations through a strengthening of resilience of public institutions of at-risk States. Where specific climate change mitigation actions and policy result in, for example, the reduction of emissions, which would have otherwise contributed to extreme weather conditions elsewhere, such actions or policy change may be viewed as also contributing to the reduction of risk factors for atrocity crimes where these weather conditions were expected to affect already vulnerable populations. States can therefore take specific climate-mitigation action or enact relevant policies, which can have an indirect alleviating effect on conflict and atrocity crimes. What is required is not only policy action on climate change, which may be achieved in part through climate litigation, but also mitigation efforts to prepare and bolster already vulnerable populations and at-risk States' resilience, reducing their exposure and vulnerability to adverse climate effects.

IV CONCLUSION

Climate change is not, and should not be, considered as an excuse or primary cause of conflict or atrocity crimes. While climate change inevitably adversely impacts environmental stresses, which may exacerbate existing tensions within and between communities and vulnerable populations, it is possible for States to take measures to build their populations' resilience through, among other things, the strengthening of political and human stability and security, the respect, fulfilment and protection of the enjoyment of human rights, the provision of democratic governance, dispute-resolution mechanisms and the rule of law.⁹³ Not all adverse effects of climate change therefore result in conflict or the commission of atrocity crimes. However, as climate change increases the risk of natural disasters, rising water levels, resource scarcity, and extreme-weather events so are the risk factors for conflict and atrocity crimes exacerbated. Although the risks for societal, political, or violent conflict may increase through

⁹² See also *ibid* 13, 28, 29.

⁹³ Sunga (n 10) 23.

climate-change impacts in certain circumstances,⁹⁴ the responses of States to climate change and climate litigation will be critical to alleviate exacerbated risks. The nexus between climate change and conflict and atrocity crimes depends on the specific situation on the ground. The commission of atrocity crimes is also not limited to conflict situations, nor are atrocity crimes committed in every conflict situation. At the same time, conflict may also exacerbate climate change and environmental degradation. It is therefore more accurate to characterise climate change as a threat multiplier of conflict and atrocity crimes with the need to investigate every at-risk situation *in concreto*.

Notwithstanding the indirect nexus between climate change and conflict, a definite estimate of potential impacts of climate change and of climate litigation on conflict and atrocity crimes remains difficult due to lack of available evidence. More research is required to understand the impacts of climate litigation, not only on advancing climate policy and action, but also its indirect impacts on other serious issues such as conflicts and atrocity crimes. Although climate litigation has achieved some important outcomes to date including the clarification of international environmental law and in some instances achieving climate-policy development and action, it should not be relied on as a comprehensive response and solution to insufficient climate action and regulation by States and corporate actors.⁹⁵ As many cases are still ongoing, any evidence of potential impacts of climate litigation remains mostly theoretical and anecdotal. Additionally, there are limits to the political or societal change climate litigation may achieve.⁹⁶ However, climate litigation, if successful in enforcing climate standards and internationally assumed obligations, resulting in an overhaul of ineffective climate change policies and the reduction of temperature, has the potential to indirectly alleviate risk factors for conflict and contribute to the prevention of atrocity crimes. Climate mitigation action that results in the establishment or strengthening of mechanisms, ensuring their adherence to transparency and accountability, and the strengthening of a State's resilience through the adherence of human rights, have the biggest potential to contribute to the reduction of conflict and the prevention of atrocity crimes. What is required is not only policy action on climate change, which may be achieved in part through climate litigation, but also mitigation efforts to prepare and bolster already vulnerable populations and at-risk States' resilience, reducing their exposure and vulnerability to adverse climate effects.

⁹⁴ Katharine J Mach et al, 'Climate as a Risk Factor for Armed Conflict' (2019) 571(7764) *Nature* 193.

⁹⁵ Felicity Millner and Kirsty Ruddock, 'Climate Litigation: Lessons Learned and Future Opportunities' (2011) 36(1) *Alternative Law Journal* 27, 32.

⁹⁶ Peel et al (n 91) 24.