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Another brick in the wall: Climate change (in)adaptation under the law of belligerent occupation

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Abstract

This article explores the legal obligations of Occupying Powers with regard to climate change adaptation for local populations and their environment under the law of occupation, specifically in the context of prolonged belligerent occupations. It focuses on the critical matter of water and food security, in light of the increasing frequency and severity of extreme weather events. After shedding light on the intricate issues that arise at the intersection of climate change and belligerent occupation, the article argues that the general obligations incumbent upon the Occupying Power under occupation law, when viewed through a climate lens, can be construed as addressing the heightened climate vulnerability faced by occupied populations.

Keywords: belligerent occupations, climate change adaptation, law of occupation, extreme weathers events, water and food security.

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Introduction

Principle 23 of the 1992 Rio Declaration stipulates that "[t]he environment and natural resources of people under oppression, domination and occupation shall be protected".[1] Thirty years later, as the climate crisis and biodiversity loss grow more alarming and their impact on human beings becomes more apparent, this principle has taken on even greater importance. In particular, in situations of occupation, local populations endure the "dual strike" of being affected not only by the consequences of belligerent occupation on their capacity to deploy adaptation strategies but also by the increasingly adverse impacts of climate change, resulting in an exacerbated climate vulnerability.[2] Building upon this premise, this article seeks to unearth the obligations of Occupying Powers, as "temporary administrators" of territories under their control, in facilitating the local population's adaptation to climate change. Specifically, the article examines the Occupying Power's obligations as prescribed by the law of occupation, a subset of international humanitarian law (IHL) and specialized regime applicable in situations of occupation.

Arguably, the scope of the obligations and powers imposed on the Occupying Power evolves over time[3] and in light of the overall stability of the situation[4], while, more fundamentally, climate change adaptation might not always be a priority in short-term occupations. Therefore, the author puts an emphasis on so-called "prolonged occupations". As the occupation lingers on, obstacles to adaptation may multiply, resulting in a "slow and structural violence"[5] that leads to climate injustice by depriving present and future generations of their ability to cope with one of the most serious threats to humankind. Considering the broad range of climate change impacts affecting populations around the world and their environment, this article focuses solely on the crucial issue of water and food security in light of increasingly extreme weather events.

1 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26, 12 August 1992.

2 To the best of the author's knowledge, the capital importance of this "dual strike" was most prominently voiced by the late Suha Jarrar, senior legal researcher and advocacy officer at Al-Haq. See Suha Jarrar, *Adaptation under Occupation: Climate Change Vulnerability in the Occupied Palestinian Territory*, Al-Haq, 2019, p. 12.

3 ICRC, *Commentary on the First Geneva Convention: Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field*, 2nd ed., Geneva, 2016, para. 322; Hanne Cuyckens, *Revisiting the Law of Occupation*, Brill, Boston, MA, 2017, p. 162.

4 Vaios Koutroulis, "The Application of International Humanitarian Law and International Human Rights Law in Situation of Prolonged Occupation: Only A Matter Of Time?", *International Review of the Red Cross*, Vol. 94, No. 885, 2012, p. 205.

5 The concept of "slow and structural violence" is borrowed from Eliana Cusato's remarkable book: see Eliana Cusato, *The Ecology of War and Peace: Marginalizing Slow and Structural Violence in International Law*, Cambridge University Press, Cambridge, 2021, pp. 19–25. Adapted to this article, the concept refers to the gradual and persistent ecological harm inflicted on people and the environment as a result of the structural and systemic conditions that arise during and after armed conflicts, in this case in belligerent occupations. It is this insidious harm that prevents local populations from adapting to and mitigating the effects of climate change.

Although not sovereign over the occupied territory, the Occupying Power exercises State-like administrative duties and thus "some of the rights of sovereignty".[6] Under the law of occupation, the Occupying Power is bound by two core obligations: ensuring the welfare of the local population and respecting the laws in force in the occupied territory. After briefly stressing the exacerbated climate vulnerability of local populations in situations of occupation and giving an overview of the legal frameworks applicable to occupation and climate change adaptation respectively, this article then scrutinizes the adequacy of occupation law in responding to the challenge of climate change in occupied territories. The article goes on to examine the extent to which the Occupying Power's obligation to ensure the welfare of the population under occupation includes climate change adaptation; it then turns to how this obligation interacts with the Occupying Power's duty to maintain the *status quo ante bellum* in the occupied territory. Finally, the article briefly discusses the relevance of natural resource management rules under occupation law for adapting to climate change. Despite the absence of specific provisions on environmental protection, the article argues that the law of occupation remains, through its flexible standards of protection, a solid foundation upon which climate change obligations for the Occupying Power can be conceptualized.

Two caveats are warranted. The first stems from the inherently case-specific nature of the scope of obligations applicable during belligerent occupations and the need to maintain a realistic approach. Because every situation of occupation is unique, determining an Occupying Power's obligations *in abstracto* may prove difficult.[7] While this article aims to appraise a general scope of obligations, it acknowledges that they can vary depending on the specific circumstances on the ground and the potential swings from periods of "negative peace"[8] to active hostilities. A second caveat relates to the point of tension permeating this article, which is intrinsic to the very object of inquiry: climate action is inextricably linked to statecraft and sovereignty. Therefore, although necessary to shield the occupied population from the consequences of climate change, any positive actions undertaken by the Occupying Power, and pleas for extended powers in prolonged occupations, must be weighed against the potential for perpetuating and legitimizing the occupation.

Setting the scene: Climate, humanity and conflict

Before embarking on the exploration of an Occupying Power's climate-related obligations, the rationale of this article must be refined. After briefly restating the

6 Knut Dörmann and Hans-Peter Gasser, "Protection of the Civilian Population", in Dieter Fleck (ed.), *The Handbook of International Humanitarian Law*, Oxford University Press, Oxford, 2013, p. 274.

7 H. Cuyckens, above note 3, p. 152.

8 See the definition of "negative peace" provided by the Institute for Economics and Peace (IEP) in IEP, *Positive Peace Report 2022*, January 2022, p. 8, available at www.economicsandpeace.org/wp-content/uploads/2022/01/PPR-2022-web.pdf (all internet references were accessed in August 2023); negative peace is defined therein as "the absence of violence or fear of violence".

intrinsic links between climate change, humans and conflict, through the notions of "adaptation" and "adaptive capacity", and portraying the climate injustice that local populations in prolonged occupations might suffer from, this section provides an overview of the legal regimes applicable specifically to occupation and climate change adaptation respectively.

Climate change and occupation: Exacerbated vulnerabilities

It is unequivocal today that human activities, such as the burning of fossil fuels and deforestation, have left an indelible mark on the climate. In a twist of fate, the climate crisis has now become one of the greatest threats facing humanity.[9] Climate change is deeply affecting human beings, disrupting ecosystems, biodiversity and overall planetary health. It is impairing the enjoyment of human rights all around the world[10] – but disproportionately for vulnerable communities. Increasing climate extremes are exposing communities to aggravated food insecurity while alarmingly impacting water security.[11] As powerfully stated by the Intergovernmental Panel on Climate Change (IPCC) in its report of 27 February 2022, "[a]ny further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all".[12]

Mitigation, described as "human intervention to reduce emissions or enhance the sinks of greenhouse gases",[13] goes hand in hand with adaptation, which implies "taking action to prepare for and adjust to both the current effects of climate change and the predicted impacts in the future".[14] Whereas mitigation efforts are primarily concerned with preserving a sustainable environment in the future, adaptation measures are implemented in response to the significant issues that communities affected by climate change are often already facing.

Adaptation measures can "focus specifically on climate change impacts, such as developing heat-resistant crops and building sea walls", but most commonly, they aim to enhance societies' resilience to generalized risks.[15]

9 UN Security Council, "Climate Change 'Biggest Threat Modern Humans Have Ever Faced', World-Renowned Naturalist Tells Security Council, Calls for Greater Global Cooperation", press release, UN Doc. SC/14445, 23 February 2021.

10 UN Human Rights Council (HRC), *Human Rights and Climate Change*, UN Doc. A/HRC/RES/44/7, 23 July 2020, para. 19; UN Environment Assembly of the UN Environment Programme, Res. 4, "Environment and Health", UN Doc. UNEP/EA.3/Res. 4, 30 January 2018, para. 18.

11 IPCC, *Climate Change 2023: Synthesis Report on the IPCC Sixth Assessment Report (AR6): Summary for Policmakers*, 19 March 2023, p. 5, para. A.2.2.

12 IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability*: *Summary for Policymakers*, 27 February 2022, p. 5.

13 IPCC, "Annex I: Glossary", in *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty*, 2018, p. 554.

14 European Commission, "EU Adaptation Strategy", available at: https://ec.europa.eu/clima/eu-action/adaptation-climate-change/eu-adaptation-strategy_en.

15 Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani, *International Climate Change Law*, Oxford University Press, Oxford, 2017, p. 14.

Essentially, such measures seek to ensure adaptive capacity, described as "the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences".[16] It goes without saying that preserving the adaptive capacity of ecosystems and thus strengthening their protection is all the more vital as they constitute "a major source of human resilience and can support the adaptation of human societies to rapid environmental change".[17] Humans and the environment in which they live are inextricably linked,[18] and their respective vulnerabilities are interdependent.[19]

Particularly vulnerable to climate change are populations affected by the plague of armed conflicts, occupations included.[20] The combined impact, or "double hit",[21] of climate change and armed conflicts was examined by the International Committee of the Red Cross (ICRC) in its report *When Rain Turns to Dust*, which highlights that "[t]he convergence of climate risks and conflict further worsens food and economic insecurity and health disparities [and] limits access to essential services, while weakening the capacity of governments, institutions and societies to provide support".[22]

Climate change's impacts and armed conflicts are mutually reinforcing, and the impacts of armed conflicts on the environment have gained increasing attention in contemporary scholarly literature.[23] In situations of occupation, such impacts include the potential deterioration of environmental programmes and infrastructures and the sidelining of sustainable development.[24] Environmental harm can also take the form of

> looting and killing of species, scorched earth policies involving the destruction of agricultural areas and forests, the contamination of rivers and wells necessary for human subsistence, excessive natural resource exploitation, and environmental harm through the neglect of maintenance of facilities, such as nature reserves, coal mines, and dams.[25]

16 IPCC, above note 13, p. 542.
17 Yadvinder Malhi *et al.*, "Climate Change and Ecosystems: Threats, Opportunities and Solutions", *Philosophical Transactions of the Royal Society B*, Vol. 375, No. 1794, 2020, p. 7.
18 HRC, *Report of the Special Rapporteur on the Issue of Human Rights Obligations relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, UN Doc. A/HRC/37/59, 24 January 2018.
19 IPCC, above note 11, p. 5; IPCC, above note 12, p. 11.
20 IPCC, *Climate Change 2007: Synthesis Report: Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate* Change, 2007, p. 14. See also IPCC, above note 12, p. 11.
21 Tuiloma Neroni Slade, "International Humanitarian Law and Climate Change", in Suzannah Linton, Tim McCormack and Sandesh Sivakumaran (eds), *Asia-Pacific Perspectives on International Humanitarian Law*, Cambridge University Press, Cambridge, 2019, p. 644.
22 ICRC, *When Rain Turns to Dust: Understanding and Responding to the Combined Impact of Armed Conflicts and the Climate and Environmental Crisis on People's Lives*, Geneva, 2020, p. 8.
23 Rosemary Rayfuse, *War and the Environment: New Approaches to Protecting the Environment in Relation to Armed Conflicts*, Brill, Leiden, 2014.
24 Douglas Weir, "How Does War Damage the Environment?", Conflict and Environment Observatory, 4 June 2020, available at: https://ceobs.org/how-does-war-damage-the-environment/.
25 Karen Hulme, "Enhancing Environmental Protection during Occupation", *Goettingen Journal of International Law*, No. 10, 2020, p. 205.

The collapse or weakening of environmental and climate governance, as well as direct environmental damages, can adversely affect climate resilience, leading to the annihilation of mitigation and adaptation efforts, and hence exacerbating climate vulnerability.[26] As put forward by Mason, climate vulnerability "denotes the idea of exposure to climate-related hazards in the context of biophysical and social vulnerability, as well as in relation to response capabilities in both the short term (coping) and long term (adaptation)".[27] The added layer of climate vulnerability generated by situations of occupation can amplify and perpetuate "the already prevalent marginalization of communities who are … dependent on natural wealth and resources".[28]

Although it is beyond the scope of this article to explore the Byzantine link between climate change and armed conflicts, it is worth noting that the climate crisis is increasingly viewed as a "threat multiplier, driving the likelihood of conflict, including violent conflict".[29] As a result, the vulnerability of populations in occupied territories is compounded by the fact that the effects of climate change, particularly on the availability of natural resources, are thought to aggravate tensions and serve as an impetus for violence. In a vicious circle, active conflicts have harmful consequences on environmental resilience and, as a result, climate change adaptation. While there is a wealth of research in scholarly literature on the interplay between security, armed conflict and climate change, as well as the environmental impacts of armed conflicts, considerably less attention has been devoted to the issue of climate vulnerability of populations under (prolonged) occupation.[30] Yet this issue raises fundamental questions "about the bounds of justice, including duties to those deemed most vulnerable to present and future climate hazards".[31]

Climate change and occupation: Legal frameworks

This section provides a succinct overview of the legal framework regulating occupation and the nature of so-called "prolonged occupations". It then touches

26 Eoghan Darbyshire, "How Does War Contribute to Climate Change?", Conflict and Environment Observatory, 14 June 2021, available at: https://ceobs.org/how-does-war-contribute-to-climate-change/; ICRC, "ICRC to UN Security Council: Double Impact of Climate Change and Armed Conflict Harms People's Ability to Cope", statement, 25 January 2019, available at: www.icrc.org/en/document/icrc-un-security-council-double-impact-climate-change-armed-conflict-harms-peoples-ability-cope.

27 Michael Mason, "The Ends of Justice: Climate Vulnerability Beyond the Pale", in David Held, Marika Theros and Angus Fane-Hervey (eds), *The Governance of Climate Change*, Polity, Cambridge, 2011, p. 164.

28 S. Jarrar, above note 2, p. 9.

29 Kirsten Davies, Thomas Riddell and Jürgen Scheffran, "Preventing a Warming War: Protection of the Environment and Reducing Climate Conflict Risk as a Challenge of International Law", *Goettingen Journal of International Law*, Vol. 10, No. 1, 2020, p. 313. This finding should nevertheless be treated with caution, as "[a]ssessments of the links between climate change and violent conflict are still unclear about many important elements": Jürgen Scheffran, Michael Brzoska, Jasmin Kominek, P. Michael Link and Janpeter Schilling, "Disentangling the Climate-Conflict Nexus: Empirical and Theoretical Assessment of Vulnerabilities and Pathways", *Review of European Studies*, Vol. 4, No. 5, 2012, p. 9.

30 S. Jarrar, above note 2, p. 10.

31 M. Mason, above note 27, p. 163.

upon the regime of international climate change law and addresses its applicability in situations of occupation.

International law of belligerent occupation

The law of occupation refers to the specific legal framework governing situations of occupation, defined as a situation in which a territory "is actually placed under the authority of the hostile army. The occupation extends only to the territory where such authority has been established and can be exercised."[32] The Occupying Power, exerting a *de facto* authority over the occupied territory, is vested by the law of occupation with a range of duties and powers. The latter are primarily spelled out in the Hague Regulations concerning the Laws and Customs of War on Land (Hague Regulations), Geneva Convention IV (GC IV),[33] Additional Protocol I to the Geneva Conventions (AP I)[34], and customary IHL.

Although it is commonly regarded as a particular form of international armed conflict, the unique features of belligerent occupation make it a rather strange bird. Whether conducted with or without active hostilities,[35] occupation is characterized by the effective, and coercive,[36] control of an Occupying Power "over a territory to which that power has no sovereign title",[37] and by the ousted sovereign's loss of authority over that territory.[38] The crux of belligerent occupation lies in its temporary character. By reason of this temporality, one of the fundamental principles of the law of occupation is that the Occupying Power must maintain the *status quo ante bellum*, and is thus prohibited, with some exceptions, from altering the laws in force and adopting far-reaching and permanent changes in the occupied territory.[39] On the other hand, another key obligation of the Occupying Power consists in restoring and ensuring public order and safety within the territory, understood as looking after the welfare of the local population, which might necessitate the adoption of legislative measures. The underlying tension between these two obligations is particularly apparent when the occupation persists over time.

32 Hague Convention (IV) Respecting the Laws and Customs of War on Land and Its Annex, Regulations Concerning the Laws and Customs of War on Land, The Hague, 18 October 1907 (Hague Regulations), Art. 42.
33 Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1959) (GC IV).
34 Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 3, 8 June 1977 (entered into force 7 December 1978) (AP I).
35 Yoram Dinstein, *The International Law of Belligerent Occupation*, Cambridge University Press, Cambridge, 2019, p. 35.
36 *Ibid*., pp. 38–39.
37 Eyal Benvenisti, *The International Law of Occupation*, Oxford University Press, Oxford, 2012, p. 3; Y. Dinstein, above note 35, p. 43.
38 Marco Longobardo, *The Use of Armed Force in Occupied Territory*, Cambridge University Press, Cambridge, 2018, p. 30.
39 Hague Regulations, above note 32, Art. 43.

Recent history has repeatedly demonstrated that belligerent occupations can linger on for many years, challenging the intended temporary nature of such situations.[40] This has prompted scholars to inquire as to whether the extended duration of so-called "prolonged occupations" affects the duties and powers established under IHL.[41] While the term "prolonged occupation" is not strictly defined,[42] Hughes attempts to frame the concept beyond its mere duration, as an occupation that "shifts from a regulated phase that preserves sovereignty and ensures uninterrupted humanitarian consideration to a form of foreign control that threatens to become permanent".[43]

While the protracted duration of an occupation does not fundamentally alter its temporary – in the sense of "provisional" – nature, it has been argued in scholarly discussion that it nevertheless bears legal implications.[44] Prolonged occupations can, to some extent, "approximate peacetime"[45] in terms of relative stability and absence of active hostilities. While IHL does not differentiate between "short-term" and "long-term" occupations, the duration of the occupation may arguably affect the scope of the Occupying Power's duties and powers.[46] In fact, the Israeli Supreme Court has held that, as a situation of occupation persists, "not only is the [Occupying Power] entitled and obliged to react to changing conditions: it is empowered to undertake major investments and long-term planning that would anticipate the future demands of the local community".[47]

Regardless of duration, all belligerent occupations are primarily governed by the law of occupation. This body of law acts as "a gap filler … that replaces the void that occurs with the temporary ousting of the sovereign government".[48] However, while occupation law is a specialized regime applicable in situations of

40 See V. Koutroulis, above note 4, p. 167: the temporary nature essentially "reflects the idea that a belligerent occupation does not change the status of the occupied territory but merely suspends the exercise of the ousted sovereign's rights over the said territory".

41 Yutaka Arai-Takahashi, "Unearthing the Problematic Terrain of Prolonged Occupations", *Israel Law Review*, Vol. 52, No. 2, 2019, p. 145.

42 V. Koutroulis, above note 4, p. 168. Adam Roberts defines prolonged occupation as "an occupation that lasts more than 5 years and extends into a period when hostilities are sharply reduced": see Adam Roberts, "Prolonged Military Occupation: The Israeli-Occupied Territories since 1967", *American Journal of International Law*, Vol. 84, No. 1, 1990, p. 47.

43 David Hughes, "Moving from Management to Termination: A Case Study of Prolonged Occupation", *Brooklyn Journal of International Law*, Vol. 44, No. 1, 2018, p. 114.

44 Y. Dinstein, above note 35, p. 58; Supreme Court of Israel, *Jamayat Askan Alma'Almun Althaunia Almahduda Almasaulia, Lawfully Registered Cooperative in Regional Command of Judea and Samaria v. Commander of IDF Forces in the Judea and Samaria Region – the Superior Planning Council for the Judea and Samaria Region*, Case No. HCJ 393/82, 12 December 1983, para. 12.

45 A. Roberts, above note 42, p. 47.

46 Y. Dinstein, above note 35, p. 128; E. Benvenisti, above note 37, p. 246; Philip Spoerri, "The Law of Occupation", in Andrew Clapham and Paola Gaeta (eds), *The Oxford Handbook of International Law in Armed Conflict*, Oxford University Press, Oxford, 2015, pp. 197–198.

47 E. Benvenisti, above note 37, p. 246, referring to Supreme Court of Israel, *The Christian Society for the Sacred Places v. Minister of Defence*, Case No. HCJ 337/71, 1972, and Supreme Court of Israel, *Jamayat Askan Alma'Almun Althaunia Almahduda Almasaulia*, above note 44.

48 Eyal Benvenisti, "Occupation and Territorial Administration", in Rain Liivoja and Tim McCormack (eds), *Routledge Handbook of the Law of Armed Conflict*, Routledge, New York, 2016, p. 435.

occupation, it does not exist in a legal vacuum and applies concurrently to other regimes of international law, such as international human rights law[49] and international environmental law.[50] In contrast with the conduct of hostilities, situations of prolonged occupation offer a wider window of harmonious interpretation between these co-applicable regimes.[51]

International climate change law

International climate change law forms the legal framework developed at the global level to address the causes and impacts of climate change, in terms of mitigation and adaptation. It consists of various multilateral agreements, institutions and principles aimed at promoting collective action to tackle climate change. The cornerstone of international climate change law is the United Nations Framework Convention on Climate Change (UNFCCC),[52] adopted in 1992.[53] The UNFCCC sets out general principles and objectives, including the stabilization of greenhouse gas concentrations in the atmosphere to prevent dangerous anthropogenic interference with the climate system, as well as climate change adaptation.[54] Climate change adaptation takes place at different levels: it involves changes in individual behaviour, collective action by communities and non-governmental organizations and, ultimately, local, sectoral and national policies and legislative measures taken by the State.[55] According to the classification suggested by the IPCC, adaptation options can be structural/physical, social or institutional.[56] The first category includes, in particular, "structural and engineering options; the application of discrete technologies; the use of ecosystems and their services to

49 International Court of Justice (ICJ), *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *ICJ Reports 1996* (Nuclear Weapons Advisory Opinion), para. 25; ICJ, *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, *ICJ Reports 2004* (Wall Advisory Opinion), paras 107–113; ICJ, *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, *ICJ Reports 2005*, para. 216. See also International Criminal Tribunal for the former Yugoslavia, *Prosecutor v. Naletilić and Martinović*, Case No. IT-98-34, Judgment (Trial Chamber), 31 March 2003, para. 214; Malcolm N. Shaw, *International Law*, 7th ed., Cambridge University Press, Cambridge, 2014, p. 857; International Law Commission (ILC), *First Report on the Protection of the Environment in Relation to Armed Conflicts by Marja Letho, Special Rapporteur*, UN Doc. A/CN.4/720, 30 April 2018, para. 14.

50 Nuclear Weapons Advisory Opinion, above note 49.

51 See ILC, above note 49, p. 41; Sari Bashi, "Human Rights in Indefinite Occupation: Palestine", *International Comparative, Policy and Ethics Law Review*, Vol. 3, No. 3, 2020, p. 825; Noam Lubell, "Human Rights Obligations in Military Occupation", *International Review of the Red Cross*, Vol. 94, No. 885, 2012.

52 David Freestone, "The United Nations Framework Convention on Climate Change – The Basis for the Climate Change Regime", in Cinnamon P. Carlarne, Kevin R. Gray and Richard Tarasofsky (eds), *The Oxford Handbook of International Climate Change Law*, Oxford University Press, Oxford, 2016, p. 98.

53 United Nations Framework Convention on Climate Change, 9 May 1992 (entered into force 21 March 1994) (UNFCCC).

54 *Ibid.*, Art. 2.

55 UNFCCC, "Fact Sheet: The Need for Adaptation", available at: https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_adaptation.pdf.

56 Ian R. Noble *et al.*, "Adaptation Needs and Options", in Christopher B. Field *et al.* (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects*, Cambridge University Press, Cambridge, 2014, p. 844.

serve adaptation needs; and the delivery of specific services at the national, regional, and local levels".[57] Social options, meanwhile, "target the specific vulnerability of disadvantaged groups, including targeting vulnerability reduction and social inequities".[58] Finally, institutional options "range from economic instruments such as taxes, subsidies, and insurance arrangements to social policies and regulations" as well as laws and planning measures concerning, for example, protected areas.[59]

Under the UNFCCC, States Parties have agreed to "formulate, implement, publish and regularly update national … programmes containing … measures to facilitate adequate adaptation to climate change".[60] The UNFCCC's successor protocol, the 2015 Paris Agreement,[61] defines the goal of climate change adaptation more robustly.[62] Article 7(9) of the Paris Agreement, one of its few binding provisions,[63] provides that "[e]ach Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions" including adaptation actions, undertakings and/or efforts; formulating and implementing national adaptation plans; assessing climate impacts and vulnerabilities; and building resilience of socioeconomic and ecological systems. Under Articles 7(10) and 7(11), States Parties should submit and update adaptation communications that include adaptation needs and actions taken.

Of course, critical questions arise as to whether this essential regime continues to apply in times of armed conflict, including belligerent occupation; and, if so, what (if any) obligations to adapt under the UNFCCC regime concretely apply to the Occupying Power in relation to the occupied territory. The last decade has witnessed remarkable developments toward a stronger recognition of the applicability of international environmental law (in general) during belligerent occupations.[64] The International Law Commission (ILC) concluded to the existence of a rebuttable presumption in favour of the applicability of this field of law, in the context of Draft Articles on the Effects of Armed Conflicts on Treaties.[65] The interaction between IHL and international environmental law was also at the core of the ILC's recent Draft Principles on Protection of the Environment in Relation to Armed Conflict (ILC Draft

57 *Ibid*., p. 845.
58 *Ibid*., p. 847.
59 *Ibid*., p. 848.
60 UNFCCC, above note 53, Art. 4(1)(d).
61 Paris Agreement, 12 December 2015 (entered into force 4 November 2016).
62 *Ibid*., Art. 2.
63 Daniel Bodansky, "The Legal Character of the Paris Agreement", *Review of European Comparative and International Environmental Law*, Vol. 25, No. 2, 2016.
64 Karen Hulme, "Armed Conflicts and Biodiversity", in Michael Bowman, Peter Davies and Edward Goodwin (eds), *Research Handbook on Biodiversity and Law*, Edward Elgar, Cheltenham, 2016, p. 261; Silja Vöneky, "A New Shield for the Environment: Peacetime Treaties as Legal Constraints of Wartime Damage", *Review of European Community and International Environmental Law*, Vol. 9, No. 1, 2000, p. 20.
65 ILC, Draft Articles on the Effects of Armed Conflicts on Treaties, in *Yearbook of the International Law Commission*, Vol. 2, Part 2, 2011, UN Doc. A/66/10, Art. 7 and Annex.

Principles).[66] However, while there is a presumed continuity of environmental treaties in times of armed conflict, one must proceed on a case-by-case basis to assess the concrete applicability of such treaties. Some, such as the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, provide explicitly (or indirectly) for their continued application during armed conflict.[67] Others, such as the UNFCCC and the Paris Agreement, are silent on the matter.

The continued applicability of the obligations arising from the UNFCCC and the Paris Agreement can be assessed in light of the criteria outlined by the ILC in Articles 6 and 7 of its Draft Articles on the Effects of Armed Conflicts on Treaties, including their subject matter, content, object and purpose, the number of parties, and the specific features of the armed conflict, *in casu*, a prolonged occupation.[68] Considering all these criteria, there is a strong case to be made that the UNFCCC and Paris Agreement, as nearly universally ratified instruments designed to address "change in the Earth's climate and its adverse effects" as a "common concern of humankind",[69] apply in situations of prolonged occupation.[70] In this sense, in Vöneky's view, treaties that "protect a common good in the interest of the state community as a whole"[71] continue to apply during armed conflict, backing the continued applicability of the UNFCCC regime.

Yet, the fact that the international climate change regime continues to apply in times of occupation does not settle the matter at hand. The question remains as to what obligations under the UNFCCC regime apply to the Occupying Power *in relation to* the occupied territory and the local population. A "short-term road"[72] allowing us to conclude that the obligations arising from the international climate change regime are incumbent upon the Occupying Power lies within the law of occupation. The principle of continuity of the legal system could indeed serve as a "gateway" to binding the Occupying Power to the same climate obligations that bind the ousted government. The following section of this article delves into this path and the complexities it entails. Certain scholars appear to point to an alternative route, suggesting the existence of extraterritorial obligations under the

66 ILC, *Provisional Summary Record of the 3504th Meeting*, UN Doc. A/CN.4/SR.3504, 31 October 2019, p. 15. For the full text of the Draft Principles, with commentaries, see ILC, *Draft Principles on Protection of the Environment in Relation to Armed Conflicts, with Commentaries*, in *Yearbook of the International Law Commission*, Vol. 2, Part 2, 2022, UN Doc. A/77/10 (ILC Draft Principles).

67 Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971.

68 ILC, above note 65, Art. 6.

69 UNFCCC, above note 53, Preamble.

70 See, in this sense, Romina Edith Pezzot, "IHL in the Era of Climate Change: The Application of the UN Climate Change Regime to Belligerent Occupations", *International Review of the Red Cross*, Vol. 105, No. 923, 2023, pp. 1084–1087.

71 Silja Vöneky, "Peacetime Environmental Law as a Basis of State Responsibility for Environmental Damage Caused by War", in Jay E. Austin and Carl E. Bruch (eds), *The Environmental Consequences of War: Legal, Economic, and Scientific Perspectives*, Cambridge University Press, Cambridge, 2000, pp. 190, 211–212; S. Vöneky, above note 64, p. 20. On the difficulty of conceiving the "opting-out" of States from treaties regulating global interests, see Arnold N. Pronto, "The Effect of War on Law – What Happens to Their Treaties When States Go to War?", *Cambridge Journal of International and Comparative Law*, Vol. 2, No. 2, 2013, p. 231.

72 See R. E. Pezzot, above note 70, pp. 1079–1081.

UNFCCC regime.[73] A State's commitment to adaptation under the UNFCCC regime entails the obligation "to protect as far as it can the people and ecosystems *within its jurisdiction*".[74] One could draw an analogy with the extraterritorial human rights obligations triggered by an Occupying Power's effective control, or with States' obligation to prevent environmental harm on their territory or areas under their jurisdiction (arising from international environmental law[75]), to construe "jurisdiction" as including the occupied territory. Conversely, in a more restrictive view, it can be argued that the wording of the Paris Agreement indicates that adaptation action must be carried out at the domestic level and that, in the current state of the art, the international climate change regime does not easily lend itself to extraterritorial duties[76] as it is built on a "territorial-bounded-state paradigm".[77]

Climate change adaptation in prolonged occupations

Bearing in mind the parallel applicability of other bodies of rules, the author now seeks to unpack the potential of the law of occupation, and its main standards of protection, to safeguard the capacity of occupied populations to adapt to increasingly extreme weather events and their subsequent impacts on water and food security. Because occupation law does not address environmental issues, it is somewhat anachronistic in the face of modern challenges. Yet the author contends that it does provide safeguards in relation to climate change adaptation, through the obligations to ensure public order and safety of the local population and the rules on the management of property and natural resources, as well as a direct gateway to the applicability of climate obligations emanating from international climate change law.

Public order and safety of the local population

Article 43 of the Hague Regulations lays down two distinct obligations of conduct incumbent upon the Occupying Power:[78] it "shall take all steps in [its] power to

73 *Ibid*., pp. 1081–1083; Lena Feji, "Climate Change and the Vulnerable Occupied Palestinian Territories", *UCLA Journal of Environmental Law and Policy*, Vol. 39, No. 1, 2021, p. 76; Marc Limon, "Human Rights Obligations and Accountability in the Face of Climate Change", *Georgia Journal of International and Comparative Law*, Vol. 38, 2010, p. 558.

74 Benoît Mayer, *The International Law on Climate Change*, Cambridge University Press, Cambridge, 2018, p. 166 (emphasis added).

75 R. E. Pezzot, above note 70, pp. 1081–1083. Pezzot argues that, through a harmonic interpretation of the Paris Agreement and the harm prevention principle, one can conclude to the extraterritorial application of the Paris Agreement. In this sense, "the Occupying Power would be responsible for controlling GHG [greenhouse gas] emissions from the occupied territory under its effective control (in order to avoid worsening the climate change situation), should take concrete actions to mitigate those GHG emissions and to protect the civil population from climate change during the occupation, and should include in its nationally determined contributions those GHGs produced in the occupied territory when that space is under its effective control".

76 Markus Vordermayer, "The Extraterritorial Applicability of Multilateral Environment Agreements", *Harvard International Law Journal*, Vol. 59, No. 1, 2018, p. 90.

77 Benjamin Kaplan Weinger, "Scripting Climate Futures: The Geographical Assumptions of Climate Planning", *Political Geography*, Vol. 88, 2021, p. 4.

78 Y. Dinstein, above note 35, p. 100.

restore and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country". This section is dedicated to an analysis of the first set of obligations – that is, to "restore and ensure" public order and the safety of the local population – through the prism of climate change adaptation. Specifically, the paper considers how extreme weather events can disrupt public order and safety and explores concrete examples of measures that the Occupying Power should take to address these threats.

The authoritative French version of Article 43 sheds light on the meaning of "public order and safety". Translated from "l'ordre et la vie publics", public order and safety (or "civil life") respectively encompass the security and general safety of the population in the occupied territory and "the social functions and ordinary transactions that constitute daily life".[79] The obligation involves two sets of actions: "re-establishing public order and life, if disrupted ('rétablir'); and ensuring the continued existence of public order and life, if not ('assurer')".[80] It follows from the foregoing that the Occupying Power must not only reinstate the *status quo ante* in terms of the security, health and well-being of the population but must also actively seek to maintain it; to the greatest extent possible, it must refrain from engaging in activities that jeopardize the population's security or disturb "normal" life. It also implies that the Occupying Power must prevent such behaviours from third parties.[81] Complementary provisions of the Hague Regulations and GC IV refine the contours of the conducts that the Occupying Power must or, conversely, must not adopt.[82]

The duty to ensure public order and civil life must be "adjusted to changing social needs relating to security, economy, [and] health",[83] particularly in prolonged occupations. Arguably, "in some instances the [Occupying Power] is even obliged to enact legislation designed to 'ensure public order and civil life'".[84] The entangled issue of legislation-making by an Occupying Power is discussed in the following section; for the time being, questions pertaining to the concrete application of the obligation to "restore and ensure" to climate change adaptation will be addressed. In particular, the evolutive needs of occupied populations in the face of the climate crisis's growing repercussions will be considered. That global warming is leading to extreme weather events has become largely undeniable (even to the most sceptical); equally indisputable is the fact that the increasing severity and frequency of extreme weather events raises critical social, economic and security concerns for vulnerable communities, including populations in occupied

79 Tristan Ferraro, *Expert Meeting: Occupation and Other Forms of Administration of Foreign Territory*, ICRC, Geneva, 2012, p. 57; Yutaka Arai, *The Law of Occupation: Continuity and Change of International Humanitarian Law and Its Interaction with International Human Rights Law*, Vol. 2, Brill, Leiden, 2009, p. 96.

80 Y. Dinstein, above note 35, p. 101.

81 ICJ, *Armed Activities*, above note 49, para. 178.

82 Marco Sassòli, "Legislation and Maintenance of Public Order and Civil Life by Occupying Powers", *European Journal of International Law*, Vol. 16, No. 4, 2005, p. 664.

83 Y. Arai, above note 79, p. 98.

84 *Ibid.*, pp. 98–100, referring to Supreme Court of Israel, *Abu Aita et al. v. Commander of the Judea and Samaria Region et al.*, Case No. HCJ 69/81, 5 April 1983.

territories, posing threats to food and water security that are likely to be aggravated over time. When approaching the Occupying Power's obligation to "restore and ensure public order and safety", this article draws a line between the negative obligation not to hinder the local population's welfare and the positive obligation to take all measures reasonably possible to restore and/or ensure the "normal life" of the occupied population in light of the aforementioned climate risks.

For Dinstein, "the purpose of the first part of Hague Regulation 43 is to protect the civilian population from all acts of violence",[85] whether committed by the Occupying Power or by a third party. While acts of violence can be viewed as isolated actions, such as destruction of lands or property, this article suggests the adoption of a more comprehensive (yet creative) approach. If one considers that depriving a population of its means to cope with the effects of climate change embodies a form of "slow and structural violence",[86] it could arguably be inferred from Article 43 that the Occupying Power should not act in ways that impair adaptive capacity within the occupied territory or frustrate community-based adaptation efforts. Indeed, adaptive capacity comprises a "set of resources available for adaptation, as well as the ability or capacity … to use these resources effectively in the pursuit of adaptation".[87] To preserve this adaptive capacity in the face of increasing climate and weather extremes, environmental resilience and natural resource availability must not be endangered – especially via overexploitation and pollution – and the local population must not be denied access to essential resources.

Furthermore, construed under the general umbrella of Article 43 of the Hague Regulations, other restrictive provisions of IHL are most salient in the context of climate change adaptation. Of particular importance is the obligation enshrined in Article 54(2) of AP I, regarded as a customary rule of IHL.[88] It prohibits "attack[ing], destroy[ing], remov[ing] or render[ing] useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works". Water resources are critically important for human adaptive capacity in the face of climate change, and due to their acute sensitivity to global warming, these resources must therefore be managed cautiously.[89] Prohibited acts under Article 54(2) include demolishing water-related structures – whether they are used for drinking water or agricultural purposes, such as rainwater-harvesting ponds – and polluting drinking water sources.

85 Y. Dinstein, above note 35, p. 102.
86 E. Cusato, above note 5, p. 59.
87 Nick Brooks and W. Neil Adger, "Assessing and Enhancing Adaptive Capacity", in Bo Lim and Erika Spanger-Siegfried (eds), *Adaptation Policy Frameworks for Climate Change: Development Strategies, Policies, and Measures*, Cambridge University Press, Cambridge, 2005, p. 168.
88 Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005, p. 189, available at: https://ihl-databases.icrc.org/en/customary-ihl.
89 Jonathan Verschuuren, "Climate Change Adaptation and Water Law", in Jonathan Verschuuren (ed.), *Research Handbook on Climate Change Adaptation Law*, Edward Elgar, Cheltenham, 2013, pp. 251–252.

Practices by an Occupying Power that impede access to, or mismanage, water resources can severely impact the adaptive capacity of occupied populations. Such practices would surely run counter to Article 43 of the Hague Regulation and possibly Article 54(2) of AP I. However, the latter includes a caveat: destroying or rendering useless resources essential to the population's survival must be done with "the specific purpose of denying them for their sustenance value". This additional requirement may prove challenging to meet in practice as it implies that such actions would not be illegal if conducted in the name of military necessity.[90]

In addition, even if one is not convinced by the extraterritorial application of the obligations imposed by the international climate change regime upon the Occupying Power, referring to the fundamental principles of *pacta sunt servanda* and good faith under the Vienna Convention on the Law of Treaties may provide a possible route for the regime to influence the Occupying Power's conduct.[91] One could argue that the Occupying Power, while remaining bound by its own obligations under the UNFCCC regime, should not act in a way (except if justified under IHL) that contradicts the object and purpose of the treaties that it has ratified and the expectations thereof.[92] Under this view, one could make the claim that States have "an obligation not to interfere with other States in the implementation of their own … obligations",[93] derived from the principle of good faith, which would apply to an Occupying Power. It could be advocated that by curtailing the occupied State's capability to adapt, as well as the local and national adaptation efforts implemented (thus further degrading another State Party's climate resilience), an Occupying Power would be deliberately frustrating the spirit of the treaties.[94]

Beyond the negative obligation outlined above, the Occupying Power also bears a duty to take necessary measures to meet the evolving needs of the local population, which arguably comprises the adoption of adaptation measures and strategies. This duty becomes increasingly important as the period of occupation lengthens.[95] The degree of positive actions that ought to be taken will equally depend on the Occupying Power's "level of control" and "the constraints and the resources available".[96] As the ICRC has pointed out, adapting to climate change

90 Karen Hulme, "Climate Change and International Humanitarian Law", in Rosemary Rayfuse and Shirley V. Scott (eds), *International Law in the Era of Climate Change*, Edward Elgar, Cheltenham, 2012, p. 211.
91 Vienna Convention on the Law of Treaties, 23 May 1969 (entered into force on 27 January 1980), Art. 26.
92 See ICJ, *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Judgment, *ICJ Reports 1986*, pp. 135 ff.; Robert Kolb, "Principles as Sources of International Law", *Netherlands International Law Review*, Vol. 53, No. 1, 2006, p. 18.
93 John H. Knox, "Human Rights Principles and Climate Change", in C. P. Carlarne, K. R. Gray and R. Tarasofsky (eds), above note 52, p. 230.
94 ICJ, *Nicaragua*, above note 92, para. 275.
95 Michael Siegrist, *The Functional Beginning of Belligerent Occupation*, Graduate Institute Publications, Geneva, 2011.
96 Hans-Joachim Heintze, "Protection of the Environment and International Humanitarian Law", in Centre of Analysis of International Relations, *Neglected Victim of the Armenia-Azerbaijan Conflict: Environmental Impacts of Occupation*, Baku, 2020, p. 20.

"can be relatively simple … but it may also require major social, cultural, or economic changes".[97] As previously mentioned, climate adaptation measures can intervene at different levels and can take various shapes, and depending on the level and shape in question, the measures that an Occupying Power may adopt will be restricted to a greater or lesser extent by the law of occupation.

In the context of this article, efforts to ensure food and water security in the face of increasingly frequent and severe extreme weather events can take many different forms, ranging from providing information on climate risks and rebuilding essential facilities, such as dykes and dams, to adopting or modifying policy and legislative frameworks (the latter being the trickiest in the context of belligerent occupation, as developed below). The Occupying Power could be required to adopt policy or legislative measures aimed at protecting crucial natural resources – such as aquifers, fisheries, forests and agricultural land – as well as developing disaster preparedness and response plans for floods, droughts and other natural disasters, and water management plans.

Against this backdrop, two questions emerge: first, whether the Occupying Power is authorized to undertake long-term or far-reaching policy or legislative measures to ensure the local population's adaptation to climate extremes; and, second, whether the positive actions mandated by Article 43 encompass preventive measures, including those aimed at safeguarding the interests of future generations.

On the first question, which will be dealt with in greater depth below, the Israeli Supreme Court's jurisprudence provides some guidance. Starting from the premise that the Occupying Power's duties must be exercised in a manner similar to that of a modern State, the Court has held that, in a long-term occupation, investments and projects that have lasting implications beyond the occupation period are permissible so long as they are designed to benefit the local population.[98] Accordingly, provided that the adaptation project is implemented in order to improve the population's well-being, it could be deemed legitimate. But caution is warranted: in the absence of a centralized control mechanism under IHL as to what constitutes a "legitimate" measure, one could argue that the adoption of such measures would further consolidate the occupation – running counter to its indented temporary nature – and ultimately serve the Occupying Power's interests. In this sense, Azerbaijan, which was partly occupied by Armenia for over two decades, emphasized during the Sixth Committee of the UN General Assembly's discussions on the ILC Draft Principles that an Occupying Power cannot justify carrying out significant transformations in the occupied territory under the pretence of environmental protection.[99]

As regards the second question, insights can be found in the ILC Draft Principles, Principle 19(2) of which states:

97 ICRC, above note 22, p. 18.

98 David Kretzmer, "The Law of Belligerent Occupation in the Supreme Court of Israel", *International Review of the Red Cross*, Vol. 94, No. 885, 2012, p. 220.

99 UN General Assembly, *Couverture des reunions: La protection de l'environnement dans les conflits armés anime les débats de la Sixième Commission*, UN Doc. AG/J/3610, 5 November 2019.

> An Occupying Power shall take appropriate measures to prevent significant harm to the environment of the occupied territory, including harm that is likely to prejudice the health and well-being of protected persons of the occupied territory or otherwise violate their rights.[100]

The commentary to Principle 19(2), in keeping with the principle of intergenerational equity, states that protection must be afforded to both present and future generations.[101] Hence, promoting an evolutive interpretation of Article 43 of the Hague Regulations, Principle 19(2) arguably entails an obligation for the Occupying Power to adopt preventive adaptation strategies with the view of safeguarding the health and well-being of the present and future local populations, which are threatened by the current and foreseeable impacts of rising extreme weather events.[102] It is indeed well established that the increasing frequency and severity of such events jeopardize the productivity of agricultural lands, and thus food safety. Additionally, these events adversely impact water security and health, as pointed out in a recent report on the linkages between climate change and health issues in the occupied Palestinian territories produced by the World Health Organization.[103]

Now, it should be highlighted that the very notion of "health and well-being" must be construed in light of international human rights law. As put forward in the commentary to Principle 19(2), the notion "refers to the common objectives of economic, social and cultural rights, such as the right to health".[104] Not only are socioeconomic rights often of the greatest concern[105] during occupations, but they are also considered among the most endangered by climate change.[106] The commentary to Principle 19(2) is in line with the jurisprudence of the International Court of Justice (ICJ), which has held that the obligations of an Occupying Power under Article 43 incorporate the obligation to ensure respect for international human rights, thereby bridging the two bodies of law.[107] International human rights monitoring bodies have progressively recognized that States must "protect against foreseeable environmental impairment of human rights";[108] significantly, the United Nations (UN) Human Rights Council has established that "each State has an obligation to protect those within its jurisdiction from the harmful effects of climate change".[109] Given that the

100 ILC Draft Principles, above note 66, p. 158.
101 *Ibid.*, pp. 161–162.
102 ILC, above note 49, pp. 24–25: in her first report, Special Rapporteur Marja Letho referred to the need for the Occupying Power to adopt some "forward-looking action" to "ensure the well-being of the population".
103 World Health Organization and UNFCCC, *Occupied Palestinian Territory: Health and Climate Change Profile 2022*, 2022 available at: https://apps.who.int/iris/bitstream/handle/10665/352629/WHO-HEP-ECH-CCH-22.01.04-eng.pdf?sequence=1.
104 ILC Draft Principles, above note 66, p. 161.
105 N. Lubell, above note 51, p. 330.
106 Erik V. Koppe, "Climate Change and Human Security during Armed Conflicts", *Human Rights and International Legal Discourse*, Vol. 8, No. 1, 2014, p. 78.
107 ICJ, *Armed Activities*, above note 49, para. 178.
108 HRC, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment*, UN Doc., A/HRC/31/52, 1 February 2016, para. 37.
109 *Ibid.*, para. 68.

occupied population is under the Occupying Power's effective control, it is the author's view that the latter should be considered obligated to take preventive measures towards climate-related hazards in the occupied territory, in order to safeguard human rights. It is, however, worth noting that several States have exhibited resistance towards Principle 19(2). While not rejecting *ipso facto* the relevance of the principle, Israel has expressed concerns that it "erroneously conflates different and distinct legal rules, and relies on non-legal notions, instead of focusing on the law of belligerent occupation".[110]

Ultimately, throughout this section, the present paper argues that Article 43 of the Hague Regulations, read in conjunction with other specific rules of IHL such as Article 54 of AP I, is critical for addressing climate change adaptation in situations of prolonged occupation. While there may be more immediate (or visible) threats to the security and well-being of occupied populations than climate change, the author contends that human security must be reframed in a comprehensive, long-term risk perspective.[111] Dangerous climate change, coupled with fragile environments, is a safety concern for occupied populations, and adaptation efforts are thus essential to meet their changing needs.

Consequently, it is the author's view that, as far as (realistically) possible, the Occupying Power must not only refrain from negatively impacting local populations' adaptive capacity but should also take active steps to implement adaptation measures in their best interest. These measures could include conducting assessments of the occupied territory's risks and vulnerabilities to extreme weather events, implementing early warning systems, and adopting changes in water management and exploitation of natural resources essential to the population's survival so as to maximize their resilience. In some cases, adaptation may require much larger social and economic changes or infrastructure projects (for example, in the face of sea level rise). It is debatable whether these would fall within the Occupying Power's responsibility (especially from a preventive standpoint); the ILC's progressive interpretation may support, to a certain extent, a favourable response, but it also carries the risk of granting the Occupying Power carte blanche to build programmes that serve its interests, disguised under a mantle of virtue. According to some scholars, the participation of the local population in decision-making would be a salient indicator of the genuineness (or lack thereof) of an Occupying Power's positive actions.[112]

Respect for the laws of the occupied territory

The Occupying Power's second general obligation, as per Article 43 of the Hague Regulations, is that of "respecting, unless absolutely prevented, the laws in force

110 Israel, "Comments from the State of Israel on the International Law Commission's *Draft Principles on the Protection of the Environment in Relation to Armed Conflicts* as Adopted by the Commission in 2019", 2020, p. 24.

111 See ICRC, "Gaza: On the Frontlines of Climate Change", 7 April 2022, available at: www.icrc.org/en/document/gaza-frontlines-climate-change.

112 T. Ferraro, above note 79, p. 13; E. Benvenisti, above note 37, p. 247.

in the country". This negative duty is a cornerstone of occupation law, embodying the so-called "conservationist principle", or principle of continuity of the legal system. It mandates the Occupying Power to maintain the legal *status quo ante bellum* in the occupied territory. The raison d'être of this principle is to ensure that the occupation remains a "provisional state of affairs",[113] thereby preserving the ousted government's sovereignty.

The "laws in force" that the Occupying Power is bound to respect are only those which were already in force at the start of the occupation.[114] While the ousted government "has the full right to continue to legislate for the occupied territory even after the occupation begins …, for its part, the occupant is not bound to respect any laws enacted by the displaced sovereign during the occupation".[115] In this regard, two scenarios can be distinguished.

A first plausible scenario is one in which the ousted government enacted national climate change laws prior to the occupation. While factoring the practical realities of belligerent occupations into the equation, it can be considered that the Occupying Power would generally be obligated in such cases to respect and uphold climate change laws (be they national or municipal laws, executive orders, ordinances, or decrees) unless they conflict with its obligations under international law or security concerns. According to this line of thought, as noted above, the principle of continuity of the legal system would equally serve as a gateway to binding the Occupying Power to the same international climate obligations that bind the ousted government, considering that the multilateral environmental treaties ratified by the latter are arguably part of the laws in force in the occupied territory.[116] The phrase "the laws in force" has indeed been understood to include multilateral conventions binding on the occupied State, thus forming a source of obligation for the Occupying Power.[117]

In light of the foregoing, the Occupying Power could potentially be bound by the pledges inserted in the Nationally Determined Contributions and National Adaptation Plans adopted by the ousted government in accordance with the Paris Agreement, insofar as they would be formulated in sufficiently binding terms. It might also be claimed that the obligation of conduct to adequately assess climate impacts and vulnerabilities, and to plan and implement mitigation and adaptation efforts in the occupied territory, would rest upon the Occupying Power. That said, the aforementioned climate obligations seemingly falling on the Occupying Power are not without their share of adverse and discursive implications, as discussed below.

Under a second scenario, the temporality of the conservationist principle could pose a significant issue. In some ongoing prolonged occupations, the period

113 Hanne Cuyckens, "The Law of Occupation", in Jan Wouters, Philippe De Man and Nele Verlinden, *Armed Conflicts and the Law*, Intersentia, Cambridge, 2016, p. 440.
114 M. Sassòli, above note 82, p. 668; Y. Dinstein, above note 35, p. 119.
115 Y. Dinstein, above note 35, p. 119.
116 ILC Draft Articles, above note 66, p. 164 fn. 770.
117 Theodor Meron, "Applicability of Multilateral Conventions to Occupied Territories", *American Journal of International Law*, Vol. 72, No. 3, 1978.

of occupation pre-dates the regulation of climate change. Consequently, the negative obligation stipulated by Article 43 of the Hague Regulations would not extend to the new climate laws and regulations enacted by the ousted government, often in accordance with the international climate change regime. In essence, this scenario may freeze the occupied territory in a normative space in which climate change does not exist, and thus prevent adaptation in the face of changing circumstances.

Despite its apparent rigidity, Article 43 nevertheless allows for some wiggle room, as the laws in force must be respected "unless absolutely prevented". This exception is typically understood to be informed by Article 64 of GC IV,[118] which authorizes the Occupying Power to legislate in exceptional circumstances, including threats to its security or to the maintenance of public order (an "orderly government"), as well as in cases of impediments to the application of GC IV (and, by extension, of other binding instruments of IHL).[119] Additionally, the Occupying Power may revise legislation that contravenes international human rights law standards[120] and may sometimes legislate if necessary to ensure the security and "normal life" of the local population.[121]

As previously mentioned, scholarly discussions have suggested broadening the restricted legislative power of the Occupying Power in prolonged occupations. For Dinstein,

> [t]he longer the occupation lasts, the more compelling the need to weigh the merits of a whole gamut of novel legislative measures designed to ensure that societal needs in the occupied territory do not remain too long in a legal limbo.[122]

Following this logic, and in light of the need to comply with its obligations under occupation law as well as to maintain an "orderly government", one could argue that the Occupying Power should be enabled (if not required) to adopt the necessary legislative underpinnings for the adaptation of the local population to the risks posed by increasing extreme weather events and natural disasters, particularly to food and water security. Such measures might also be required to ensure the security of the Occupying Power's armed forces stationed in the occupied territory.[123] To reduce vulnerability to such threats, the adoption or revision of existing legal frameworks regulating the management, protection and sustainable usage of water resources could, in particular, prove essential. Questions related to the sustainable exploitation of water and other essential natural resources are explored in the following part of this article.

Hence, this article argues that, in prolonged occupations especially, changes in public policies and the adoption of reasonable measures on climate change

118 M. Sassòli, above note 82, pp. 669–670; Y. Dinstein, above note 35, p. 121.
119 Y. Dinstein, above note 35, p. 121.
120 M. Sassòli, above note 82, p. 676.
121 Y. Dinstein, above note 35, p. 127; T. Ferraro, above note 79, p. 58.
122 Y. Dinstein, above note 35, p. 128; see also A. Roberts, above note 42, p. 52.
123 R. E. Pezzot, above note 70, pp. 1080–1081.

adaptation would, to a certain extent, be required for the Occupying Power to comply with its obligation to restore and ensure public order and civil life as well as in accordance with the climate obligations in force in the occupied territory. Climate change adaptation might take the form of "soft" measures, such as the implementation of risk and vulnerability assessments, early warning systems, and awareness-raising on water consumption. Among other things, it could also involve ecosystem-based measures, such as the restoration of wetlands or the designation of protected areas, as well as physical measures, such as the construction of flood and cyclone shelters. Provided they are adopted with a view to enhancing the welfare and responding to the changing needs of the local population, the adoption of such measures by the Occupying Power would be in line with the conservationist principle. They could thus be adopted where needed in the occupied territory based on an assessment made *proprio motu* by the Occupying Power or in line with the occupied State's existing climate laws and policies.

In some cases, however, adaptation to adverse climate impacts would require substantial and far-reaching social and economic changes at the national level – changes to which the occupied State might or might not have pledged itself before the start of the occupation. The question is, in theory, would the adoption of such "transformative"[124] measures by the Occupying Power be lawful under occupation law? In line with the arguments developed in relation to so-called "transformative" occupations[125] – aimed at bringing about democratic changes within the occupied territory – one could argue that large-scale transformations towards climate change adaptation and mitigation would be permitted, particularly in the name of human rights (including that to a healthy environment). The very notion of "transformative occupation" is highly controversial[126] and pleading, by analogy, in favour of such transformative measures is not without ethical quandaries. It should notably be recalled that not all States have the same capacity to adopt far-reaching adaptation measures – so, what if the partially or fully occupied State is a developing or least-developed State for which such measures would jeopardize overall economic development?

Generally speaking, it must be stressed (yet again) that arguing in favour of extended legislative powers of the Occupying Power always bears the risk of conferring the illusion of sovereignty upon the latter. A balancing act must thus imperatively be struck between the exceptional and temporary character of belligerent occupation and the pressing need to shield local populations from climate risks and to protect Earth's climate system. The legality of each piece of legislation adopted by the Occupying Power – no matter how "climate-friendly" – should be scrutinized thoroughly, as "[p]rofessed humanitarian [and,

124 See the notion of "transformational adaptation" in Mariya Gancheva, Sarah O'Brien, Tugce Tugran and Camille Borrett, *Adapting to Climate Change: Challenges and Opportunities for EU Local and Regional Authorities*, European Committee of the Regions, 2020.

125 Adam Roberts, "Transformative Military Occupation: Applying the Law of War and Human Rights", *American Journal of International Law*, Vol. 100, No. 3, 2006.

126 T. Ferraro, above note 79, p. 67.

in this case, environmental] motives of the Occupying Power may serve as a ruse for a hidden agenda".[127] In this regard, the participation and consent of the local population might be crucial. It has, for example, been argued that prior approval of the local population would be required to designate new conservation areas in occupied territories.[128] This would be consistent with Article 7(5) of the Paris Agreement, which states that adaptation measures must be "guided by … traditional knowledge, knowledge of indigenous peoples and local knowledge systems".

Finally, it is noteworthy that legislation which undermines the climate resilience of the local population and the environment may be enacted in the interest of the Occupying Power's security. One example of this is the creation of military zones,[129] which can exacerbate the impacts of climate change on local communities by restricting their access to essential natural resources. Other examples involve decisions related to the construction of military infrastructure, which can have negative impacts on the environment, including deforestation, soil erosion and loss of biodiversity. These detrimental consequences can lead to reduced environmental resilience and, consequently, decreased resilience of the local population to cope with changing weather patterns and increasing climate extremes.

Management of property and natural resources

The rising severity and frequency of climate-related extreme weather events deeply impacts the availability and quality of natural resources and ecosystem services, as stated above.[130] In addition to supporting the basic needs of occupied populations, natural resources and ecosystem services can exert functions such as carbon sequestration and disaster relief,[131] thus providing crucial defence lines for climate change mitigation and adaptation. Their protection therefore stands as an essential weapon against the climate crisis and its harsh consequences.

Against this backdrop, climate resilience in occupied territories is likely to be directly protected by the provisions of the law of occupation governing the management of property and natural resources. The main provision in this regard, and the epicentre of the present analysis, is Article 55 of the Hague Regulations. It grants the Occupying Power with a limited "usufructuary" status

127 Yoram Dinstein, *The Dilemmas Relating to Legislation under Article 43 of the Hague Regulations and Peace-Building*, Background Paper prepared for Informal High-Level Expert Meeting on Current Challenges to International Humanitarian Law, Cambridge, MA, 25–27 June 2004, p. 8.

128 K. Hulme, above note 25, p. 240.

129 Jean Pictet (ed.), *Commentary on the Geneva Conventions of 12 August 1949*, Vol. 4: *Geneva Convention relative to the Protection of Civilian Persons in Time of War*, ICRC, Geneva, 1958, p. 207.

130 Shardul Agrawala *et al.*, "Climate Change and Natural Resource Management", in OECD, *Bridge Over Troubled Waters: Linking Climate Change and Development*, OECD Publishing, Paris, 2006.

131 John E. Gross, Stephen Woodley, Leigh A. Welling and James E. M. Watson (eds), *Adapting to Climate Change: Guidance for Protected Area Managers and Planners*, IUCN Best Practices Protected Areas Guidelines Series No. 24, Gland, 2016, p. 96.

over immovable public property – such as *in situ* natural resources.[132] Additionally, and although not discussed in more detail here, it is noteworthy that natural resources are further protected by the prohibition on destruction or seizure of property (unless absolutely necessary for military purposes)[133] and the prohibition on pillage.[134]

As per Article 55, the usufructuary status grants the Occupying Power the right to exploit natural resources, subject to the condition that it safeguards the resources' capital and does not use them for its own domestic purposes.[135] The exploitation of natural resources must be carried out with a view to ensuring the needs of the occupied population or military necessities.[136] Within the context of its Draft Principles, the ILC has interpreted the Occupying Power's usufructuary status in a progressive fashion, relying on the concept of sustainable development – a crucial tenet of international environmental law.[137] Principle 20 reads as follows:

> To the extent that an Occupying Power is permitted to administer and use the natural resources in an occupied territory, for the benefit of the protected population of the occupied territory and for other lawful purposes under the law of armed conflict, it shall do so in a way that ensures their sustainable use and minimizes harm to the environment.[138]

At its core, sustainable development is concerned with achieving "environmentally sound socio-economic development".[139] Following the ILC's construction of Article 55 of the Hague Regulations, the Occupying Power is required to exert its exploitation right towards natural resources with caution, taking into account regeneration limits and thereby seeking to prevent, minimize and remedy potential environmental damages.[140] While it was embraced by various States,[141] the evolutive interpretation of Article 55 – as drawing upon the concept of sustainable development – was forcefully rejected by others, such as Israel. The latter suggested deleting the references to sustainable use, considering that the phrase "is not a recognized legal term in this context and its precise content lacks certainty".[142]

132 Daniëlla Dam-de Jong, *International Law and Governance of Natural Resources in Conflict and Post-Conflict Situations*, Cambridge University Press, Cambridge, 2015, p. 217.
133 Hague Regulations, above note 32, Art. 23(g); GC IV, Art. 53.
134 Hague Regulations, above note 32, Art. 47; GC IV, Art. 33(2).
135 ILC Draft Articles, above note 66, p. 167.
136 Israel appears to have contested such restrictions: see Ministry of Foreign Affairs of Israel, "Memorandum of Law on the Right to Develop New Oil Fields in Sinai and the Gulf of Suez", reproduced in *International Legal Materials*, Vol. 17, No. 2, 1978, p. 432.
137 ILC, above note 49, p. 54.
138 ILC Draft Articles, above note 66, p. 166.
139 Onita Das, *Environmental Protection, Security and Armed Conflict: A Sustainable Development Perspective*, Edward Elgar, Cheltenham, 2013, p. 63.
140 *Ibid.*, p. 64.
141 See, *inter alia*, Netherlands, *Advisory Report on the ILC's Draft Principles on Protection of the Environment in Relation to Armed Conflicts*, June 2020, p. 1.
142 Israel, above note 110, pp. 25–28.

As stated above, to safeguard climate resilience and adaptive capacity in occupied territories, water resources in particular must be subject to equitable and efficient use by Occupying Powers. Given that groundwater resources are critical for water supply and irrigation, their preservation therefore plays an instrumental role in ensuring food and water security for occupied populations in the face of climate change's growing effects. Of course, groundwaters are equally impacted by increasing climate extremes, such as intense periods of drought and flooding. Hence, it is all the more important that the adverse consequences of climate change on water resources are factored into the exploitative activities of the Occupying Power. Linking this back to the above discussion on positive actions under Article 43 of the Hague Regulations, factoring climate considerations into resource exploitation (solely for the benefit of the local population or military necessities) could entail engaging in comprehensive groundwater monitoring and data collection to understand the current state of groundwater resources, assess climate vulnerabilities and make informed decisions regarding management and exploitation. In parallel to preventing over-pumping and depletion of aquifers, Occupying Powers should also promote the protection and conservation of groundwater recharge areas, such as wetlands, rivers and lakes, which play a major role in replenishing groundwater resources.

Other natural resources, such as soil, forests, and coastal and marine ecosystems, are equally crucial in mitigating and adapting to the effects of climate change and ensuring food and water security. Apart from supporting food production and regulating water cycles, natural resources offer important ecosystem services such as carbon sequestration, erosion control and habitat provision; thus, their harvesting demands heightened prudence. While Article 55 of the Hague Regulations authorizes the Occupying Power to enjoy the proceeds of these resources, their capital must be safeguarded against abusive exploitation.[143]

Besides (and in conjunction with) sustainable development, the ILC posits that the principle of permanent sovereignty over natural resources and the principle of self-determination also have a bearing on the construction of Article 55 of the Hague Regulations[144] – both corpora of rules should "strengthen and reinforce

143 For an example of alleged unsustainable practice of forestry exploitation, see Azerbaijan's claim that Armenia's occupation has caused intensive deforestation in the formerly occupied Nagorno Karabakh region, with, according to the former's assertions, "[t]housands of hectares of forests … cut due to exploitation of new mines": Azercosmos and Ministry of Foreign Affairs of the Republic of Azerbaijan, *Illegal Activities in the Territories of Azerbaijan under Armenia's Occupation: Evidence from Satellite Imagery*, 2019, p. 89; Ministry of Foreign Affairs of the Republic of Azerbaijan, *Illegal Economic and Other Activities in the Occupied Territories of Azerbaijan*, 2016, pp. 82–84. See also the allegations of abusive exploitation of fisheries by Morocco in the waters of Western Sahara: Sahrawi Arab Democratic Republic, First Indicative Nationally Determined Contribution, 2021, pp. 30–31; Thilo Marauhn and Barry de Vries, "Natural Resources in Times of Occupation", in Michael L. Fremuth, Jörn Griebel and Robert Heinsch (eds), *Natural Resources and International Law: Developments and Challenges: A Liber Amicorum in Honour of Stephen Hobe*, Nomos, Baden-Baden, 2022, pp. 70–71.

144 ILC Draft Articles, above note 66, p. 167. See also UNGA Res. 76/225, "Permanent Sovereignty of the Palestinian People in the Occupied Palestinian Territory, including East Jerusalem, and of the Arab Population in the Occupied Syrian Golan over Their Natural Resources", 11 January 2022, paras 2–3: the UN General Assembly, recalling the permanent sovereignty of Palestinians over their natural resources, demanded that Israel "cease the exploitation, damage, cause of loss or depletion and

each other".[145] When factoring in the consequences of climate change and rising climate extremes, such interaction bolsters the argument that an Occupying Power must exert its usufructuary status with great circumspection and consider the local population's long-term subsistence in the face of increasing climate vulnerabilities. Thus, in carrying out its duty to safeguard the occupied territory's resource capital, the Occupying Power must consider the effects that climate extremes have on the faculty of local populations to freely dispose of their increasingly vulnerable natural resources. Terminating the occupation is certainly the ultimate means of respecting the above-mentioned principles and hence for local populations to regain their full capacity to implement climate adaptation strategies. Unfortunately, however, the repercussions of climate change do not wait and require immediate attention – and, factually speaking, the occupied regime might not always be in a better position than the Occupying Power to adopt the required climate measures.

All in all, the protection of natural resources is of tremendous importance both for climate change adaptation and for food and water security, which is likely to be under considerable strain in the future. Given that climate change already does – and will increasingly – alter the capital of occupied territories' natural resources, Occupying Powers should adjust their exploitation practices, particularly in prolonged occupations, to (preventively) integrate this adverse climate dimension. In this regard, Article 55 of the Hague Regulations is an instrumental provision.[146] It can arguably be construed through a climate lens – especially when combined with the Occupying Power's other general duties, as discussed above – to address adaptation concerns in the face of rising climate extremes, offering protection to natural resources with a view to ensuring the evolving needs of the local population.[147] Indeed, the ILC's use of the sustainable development concept as a lens for interpreting Article 55 is a positive and necessary development in the law. While the legal status of sustainable development is subject to controversy,[148] it nevertheless offers an overarching umbrella under which the Occupying Power's obligations of natural resource management can be revisited, in light of the current climate crisis.

Concluding remarks

Climate change is a global challenge that threatens people all around the world, but it disproportionately impacts those who are unable to defend themselves from its

endangerment of the natural resources" of the occupied Palestinian territory and recognized the right of the occupied population to claim restitution for any of those acts. Significantly, it stated that Israel's practices leading to environmental degradation and depletion of natural resources impact the realization of the Sustainable Developments Goals.

145 UN General Assembly, *Report of the Secretary-General: Implications under International Law of the United Nations Resolutions on Permanent Sovereignty over Natural Resources on the Occupied Palestinian and Other Arab Territories and on the Obligations of Israel Concerning Its Conduct in These Territories*, UN Doc. A/38/265, 21 June 1983, para. 47.

146 S. Jarrar, above note 2, p. 53.

147 See K. Hulme, above note 90, p. 209.

148 Virginie Barral, "Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm", *European Journal of International Law*, Vol. 23, No. 2, 2012, pp. 283 ff.

effects. Conflict-affected communities stand out as being among the most vulnerable, facing the dual strike of armed violence or foreign oppression and the slow and structural violence of an environment that progressively transforms into an enemy. As the need for gradual (yet urgent) adaptation to climate change grows, the ICRC has rightfully pointed out that "[s]imply waiting for conflicts and instability to be over to support people's adaptation is not an option. Such an approach would leave people in limbo for decades, and in deteriorating conditions, as risks keep growing and assets are progressively depleted."[149]

In light of the serious human rights violations all too frequently endured by populations under belligerent occupation, the impact of climate change may understandably not be considered a primary concern. However, it must be brought to the fore that climate vulnerability adds another brick to the wall that stands between occupied populations and the effective realization and enjoyment of their most fundamental rights. This article sheds light on the intricate issues that arise at the intersection between prolonged occupations and climate change adaptation, and reflects on the obligations of an Occupying Power in this context under the law of occupation – read in conjunction with the relevant rules of its neighbouring regimes.

The law of occupation was originally envisioned as a set of rules aimed at temporarily preserving the interests of the Occupying Power, the ousted government, and the local population of the occupied territory. Over time, the interests meant to be safeguarded have changed and the reality of modern-day occupations has put occupation law under strain.[150] In this sense, the applicable rules have been criticized for being outdated.[151] Yet it is argued here that the intrinsic flexibility of this specialized regime of law, as well as its evolving interpretation, secures its continued relevance in the face of new challenges such as climate change. The law of occupation requires that "the Occupying Power [strives] to ensure that the occupied population is protected from sources of significant environmental harm",[152] namely climate change and extreme weather events, while at the same time providing boundaries to the extent of such protection.

Both the obligation to restore and ensure public order and "civil life" within the occupied territory and the rules applicable to the exploitation of natural resources are critical safeguards for securing the adaptive capacity of the occupied territory and its local population, faced with the threat of extreme weather events and their impact on food and water security. While the relevant provisions certainly ought to be "fleshed out" in light of the Occupying Power's complementary human rights and environmental obligations, the law of

149 ICRC, above note 22, p. 39.
150 T. Ferraro, above note 79, p. 55.
151 Martti Koskenniemi, "Occupied Zone – 'a Zone of Reasonableness'?", *Israel Law Review*, Vol. 41, 2008, p. 29.
152 Michael Mason, "The Application of Warfare Ecology to Belligerent Occupations", in Gary Machlis, Thor Hanson, Zdravko Špirić and Jean McKendry (eds), *Warfare Ecology: A New Synthesis for Peace and Security*, Springer, Dordrecht, 2011, p. 170.

occupation – as a "droit de l'urgence"[153] – offers an adequate skeleton of duties for an Occupying Power not to aggravate and, to a certain extent, to take positive action to respond to the urgency of the local population's climate vulnerability. Furthermore, through its conservationist principle, the law of occupation provides a pathway for climate laws and international climate change obligations to apply to the Occupying Power, provided that they were in force at the outset of the occupation.

This article hopes to illustrate the paramount importance of its subject matter and the usefulness of adopting a progressive interpretation of occupation law to address climate vulnerability of local populations. Yet, two warnings are in order. The first mandates maintaining a realistic approach to an Occupying Power's duties, especially when it comes to environmental issues. Arguably, "the onerous obligations involved [in the law of occupation] have prevented modern-day [Occupying Powers] from acknowledging their status as such",[154] and adding to these obligations by articulating duties towards the local population's adaptation to climate change might be perceived as a vain endeavour by some.

A second significant caveat is that such an evolutive interpretation might bear the risk of granting the Occupying Power the semblance of a permanent sovereign over the occupied territory, thus clashing with the fundamentally temporary nature of occupation. In the absence of control mechanisms under IHL for assessing the legitimacy of the Occupying Power's policy-making and legislative measures within the occupied territory, the consultation and consent of the local population should arguably constitute the litmus test.[155] Swinging between the rigidity and flexibility of occupation law, this article has attempted to strike a balance between the need to shield populations in belligerent occupation from adaptive stagnation and the importance of not blurring the line between occupation and sovereignty.

In this regard, the article cannot escape the tension inherent to its very object of inquiry, disclaimed at the outset of the analysis. The obvious danger in promoting climate change adaptation duties for Occupying Powers – beyond the negative duty not to impair existing adaptation efforts – lies in seemingly consolidating occupations instead of calling for their end. It must be acknowledged that climate-related actions of Occupying Powers indeed bear the risk of being instrumentalized to shape sovereignty claims over occupied territories, and such actions are not without rhetorical implications. In this sense, Russia's reporting of greenhouse gas emissions in occupied Crimea has been condemned by Ukraine as an attempt to "legalize" the occupation.[156] As put

153 Robert Kolb and Sylvain Vité, *La protection des populations civiles soumises au pouvoir d'une armée étrangère*, Bruylant, Brussels, 2008, p. 114.

154 Emilia Pabian, "Prolonged Occupation and Exploitation of Natural Resources: A Focus on Natural Gas off the Coast of Northern Cyprus", *Journal of International Humanitarian Studies*, Vol. 12, No. 1, 2021, p. 109.

155 T. Ferraro, above note 79, pp. 75–76.

156 Natalie Sauer, "Russia-Ukraine Dispute over Crimea Spills into UN Climate Forum", *Climate Home News*, 7 January 2021, available at: www.climatechangenews.com/2021/01/07/russia-ukraine-dispute-crimea-spills-un-climate-forum/.

forward by Weinger, climate reports arguably constitute discursive constructions that replicate and somehow legitimate Occupying Powers' claims over occupied territories by, for instance, aggregating the latter into their own territory.[157] Here appears the Gordian knot. On the one hand, occupation renders the task of reporting climate data and taking actions in the territory arduous for the occupied State; for instance, both Georgia and Ukraine have stated that their reports on greenhouse gas emissions and mitigation efforts did not include Russian-occupied territories due to their lack of effective control, which rendered access to information difficult or impossible.[158] On the other hand, climate action by an Occupying Power is likely to be perceived as an attempt to normalize the occupation.

On a deeper level of analysis, this raises convoluted questions pertaining to the hypothetical repercussions of an Occupying Power's long-term maladaptive and "anti-mitigation" practices in the occupied territory on the ability of the occupied State to respond to the climate crisis in relation to the rest of its territory and to contribute to global climate efforts. This notably raises the issue of the Occupying Power's responsibility to ensure that activities which take place in its territory, or in any areas under its jurisdiction (including the occupied territory), do not cause significant damage to the environment of another State.[159]

157 B. K. Weinger, above note 77, p. 2.

158 Ministry of Energy and Environmental Protection of Ukraine, *Ukraine's Greenhouse Gas Inventory 1990–2018*, 2020, pp. 4, 365; Georgia, Nationally Determined Contribution, 2021, p. 8.

159 In this sense, see ILC Draft Articles, above note 66, Principle 21.