

Enhancing Environmental Protection During Occupation Through Human Rights

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Abstract

Environmental protection is not specifically included in treaty law relating to State obligations during situations of occupation. While clearly not of the same scale as damage caused to the environment during armed conflict, damage caused during occupation is often similar in nature – largely due to those who seek to exploit any governance vacuum and a failure to restore damaged environments. What can human rights offer in helping to protect the environment during occupations? What protection can be offered by an analysis of environmental human rights law?

A. Introduction

Typical environmental damage caused during occupation includes 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.¹ While perhaps not on the same scale as damage caused during the conflict phase, environmental damage during occupation can still be substantial. In protracted occupations, environmental protection is particularly fundamental to the life, health, and survival of the population.

Momentum has grown over recent years in the main United Nations fora to address environmental damage caused by the full spectrum of conflict scenarios, including during occupation.² Indeed, progress on the International Law Commission's (ILC) mandate for the *Protection of the Environment in relation to Armed Conflicts* (PErAC)³ has resulted in the adoption of twenty-eight Draft Principles⁴, three of which specifically relate to situations of occupation. Occupation law itself requires specific duties of, and places limitations on, occupying States but does not specifically refer to the *environment* as such. Yet,

¹ See for example, United Nations Environment Programme (UNEP), *Assessment of Environmental "Hot Spots" in Iraq* (2005), 84-93 [UNEP, Hot Spots in Iraq]; UNEP, *Afghanistan: Post-Conflict Environmental Assessment* (2003), 14 [UNEP, Afghanistan]; See the Polish Forestry Case, UNWCC No.7150, The United Nations War Crimes Commission, *History of the United Nations War Crimes Commission and the Development of the Laws of War* (1948), 496 [Polish Forestry Case]; *Case Concerning Armed Activities on the Territory of the Congo* (DRC v. Uganda), Judgement, ICJ Reports 2005, 168, 171 [DRC v. Uganda]; Organisation for Security and Co-operation in Europe (OSCE), *Assessment of Environmental Damage in Eastern Ukraine and Recovery Priorities* (2017) [OSCE, Ukraine]; UNEP, *Desk Study on the Environment in the Occupied Palestinian Territories* (2003) 26, 88-87, 96-102 [UNEP, OPT].

² UNEA Resolution 2/15 (2016), *Protection of the Environment in Areas Affected by Armed Conflict*, UNEP/EA.2/Res.15, 27 May 2016; UNEP and Environmental Law Institute, *Protecting the Environment During Armed Conflict: An Inventory and Analysis of International Law* (2009).

³ *Report of the International Law Commission of its Sixty-Third Session, Annex E. Protection of the Environment in Relation to Armed Conflicts*, M. G. Jacobsson, UN Doc A/66/10, 26 April-3 June and 4 July-12 August 2011.

⁴ *Text and Titles of the Draft Principles Provisionally Adopted by the Drafting Committee of the International Law Commission on First Reading on the Seventy-First Session, Protection of the Environment in Relation to Armed Conflicts*, UN Doc A/CN.4/L.937, 6 June 2019 [Draft Principles].

analysis of the true potential of human rights law in enhancing environmental protection during occupation is still in its infancy.⁵ This contribution seeks to add to current knowledge by drawing on the full range of *environmental human rights* to draw out a more complete picture of obligations during occupation, and, thus, to enhance guidance for States.

In her first report as ILC Special Rapporteur, Marja Lehto considered the environmental protection afforded in the situation of occupation.⁶ Interestingly, the Special Rapporteur drew on the environmental protection afforded by the human right to health as one source of obligations on occupying forces.⁷ The resultant ILC Draft Principles clearly acknowledge this influence, but what if, instead, a broader *environmental human rights* approach were taken to protection of the environment in occupation?⁸ Consequently, this contribution seeks to catalyze the momentum created by the adoption of the Draft Principles by expanding the human rights analysis. Notably, the current ILC Draft Commentary to the Draft Principles⁹ recognizes an obligation on Occupying States to “[...] take proactive measures to address immediate environmental problems”¹⁰ and the possible need for “active interference” in the laws and institutions concerning the environment of the occupied territory.¹¹ Drawing from environmental human rights more broadly, therefore, this contribution will also help to generate concrete guidance for States of which *proactive measures* and *active interferences* are required, not just for the short term but also for the longer term, as occupation becomes more protracted. Most importantly,

⁵ For analysis of human rights obligations in relation to the exploitation of natural resources see D. Dam-de Jong, *International Law and Governance of Natural Resources in Conflict and Post-Conflict Situations* (2015); for environmental human rights obligations in post-conflict situations see K. Hulme, ‘Using a Framework of Human Rights and Transitional Justice for Post-Conflict Environmental Protection and Remediation’ in C. Stahn, J. Iverson & J.S. Easterday, *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices* (2017).

⁶ *First Report on the Protection of the Environment in Relation to Armed Conflicts by Marja Lehto, Special Rapporteur*, UN Doc A/CN.4/720, 30 April 2018, 10, paras. 10-99 [Lehto, First Report].

⁷ *Ibid.*, 63-76.

⁸ The contribution will largely focus on the notion of *belligerent occupation* in international armed conflict, note Roberts’ analysis of seventeen different types of occupation, A. Roberts, ‘What is Military Occupation?’, 55 *British Yearbook of International Law* (1984) 1, 249.

⁹ *Report of the International Law Commission to the Seventy-First Session*, UN Doc A/74/10, 29 April - 7 June and 8 July - 9 August 2019 [ILC Draft Commentary].

¹⁰ *Ibid.*, para.11, 275.

¹¹ *Ibid.*, para.12, 275.

developing greater understanding of how environmental human rights apply in occupation allows the possibility for injured parties to seek recourse from international human rights mechanisms.¹²

There is no universally binding treaty obligation specific to a right to a healthy environment. Instead, extensive analysis evidences a series of human rights relevant to the protection of the environment, some of which are based in universally binding human rights, often referred to as the *greening* of human rights.¹³ Consequently, this contribution will, by necessity, attempt to distil from State practice the core obligations of this series of *environmental human rights* as drawn from general international law. This contribution suggests both a new way to view *environmental human rights* and uses this approach to add to the literature. As a final word of caution, in focusing on environmental human rights obligations, this contribution does not seek to suggest that environmental law obligations are not relevant during times of occupation.¹⁴ Instead, the aim is to test what could be achieved using human rights.

Following a brief analysis of the law governing occupation (Section B) and the ILC Draft Principles (Section C), this contribution will explore State practice on *environmental human rights* (Section D). This analysis will evaluate the extent of binding obligations in terms of *minimum core* duties of protection. Using these findings, the final section will contain some guidance for States, which builds upon the environmental protection recognized by the ILC's recently adopted Draft Principles.

B. Environmental Damage and the Law of Occupation

This section will analyze the provision for environmental protection within the law of occupation and, more specifically, how human rights laws applies during occupation.

¹² N. Lubell, 'Human Rights Obligations in Military Occupation' 94 *International Review of the Red Cross* (2012) 885, 317, 319.

¹³ D. R. Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment* (2012); J.R. May & E. Daly, *Global Environmental Constitutionalism* (2014); See J.H. Knox, *Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Mapping Report*, UN Doc A/HRC/25/53, 30 December 2013 [Knox, December 2013 Report].

¹⁴ Admittedly the continuation of environmental laws and its applicability on an extra-territorial basis for the occupier is not settled law, see *Draft Articles on the Effects of Armed Conflicts on Treaties, With Commentaries* (2011) 2(II) Yearbook of the International Law Commission, Articles 6 and 7.

Occupation is a defined legal situation wherein territory of one State is “[...] actually placed under the authority [...]” of the armed forces of another State (Article 42 of the 1907 Hague Regulations).¹⁵ Accordingly, Article 42 stipulates that occupation “[...] extends only to the territory where such authority has been established and can be exercised”. The test is commonly referred to as one requiring “[...] effective control over foreign territory”.¹⁶ Consequently, occupation law also extends to situations in which the occupying forces meet with no resistance, as well as to territorial administration provided by an international organization.¹⁷ The situation of occupation is a legally interesting one, therefore, in terms of the duties placed on the foreign power temporarily in charge of territory of a displaced State government. With the growing imperative globally of ensuring environmental protection, what limits and obligations are placed on such *temporary* stewards is becoming more important – particularly in situations of protracted occupation.

The principal duty of the occupier is to administer the territory, essentially by restoring and ensuring, as far as possible, public order and security,¹⁸ on the one hand, and civil life, including ensuring the welfare of the local population, on the other.¹⁹ For example, the initial stages of occupation may be typified by a

¹⁵ *Regulations Respecting the Laws and Customs of War on Land, Annexed to the 1907 Convention (IV) Respecting the Laws and Customs of War on Land*, 18 October 1907, (1910) UKTS 9, Cd.5030 [1907 Hague Regulations].

¹⁶ International Committee of the Red Cross, *Expert Meeting: Occupation and other Forms of Administration of Foreign Territory*, report prepared and edited by Tristan Ferraro (2012), available at <https://www.icrc.org/en/doc/assets/files/publications/icrc-002-4094.pdf> (last visited 22 January 2020), 8 [ICRC, Occupation Expert Meeting]; *DRC v. Uganda*, *supra* note 1, 229, paras. 172-180; International Committee of the Red Cross (ICRC), *Commentary of 2016 to Article 2 of the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (Convention I)*, paras. 301-304, available at <https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Comment.xsp?action=openDocument&documentId=BE2D518CF5DE54EAC1257F7D0036B518> (last visited 22 January 2020); Y. Dinstein, *The International Law of Belligerent Occupation*, (2009), 43; E. Benvenisti, *The International Law of Occupation*, 2nd ed. (2012), 43 [Benvenisti, *Occupation*].

¹⁷ M. Sassòli, ‘Legislation and Maintenance of Public Order and Civil Life by Occupying Powers’, 16 *European Journal of International Law* (2005) 4, 661, 687-689.

¹⁸ Article 43, *1907 Hague Regulations*, *supra* note 15. The original wording is “safety”, but this is believed to be a mistranslation from the Original French text, see E.H. Schwenk, ‘Legislative Power of the Military Occupier under Article 43, Hague Regulations’, 54 *Yale Law Journal* (1945) 2, 393.

¹⁹ *Jam’iat Iscan Al-Ma’almoun Al-Tha’auniya Al-Mahduda Al-Mauliya, Cooperative Association Legally registered at the Judea and Samaria Area Headquarters v. IDF Commander in Judea*

level of insecurity and instability. In ensuring recognition of the interests of the occupied population, the occupier is expected to work towards the restoration of human rights, certainly so if the occupation becomes more protracted.²⁰ In such situations, the concept of *public order and safety* must necessarily be broadened, as recognized in Israeli jurisprudence, to include welfare, health, hygiene, and “[...] other such matters to which human life in modern society is connected.”²¹ Thus, the immediate duty on the occupier clearly requires positive obligations in order to ensure sufficiently stable governance of the territory, and the emphasis is upon ensuring law and order and a return to normality for the population. However, dependent on the security situation, and whether the occupying force has sufficient control in fact, it is recognized as an obligation of due diligence and that the occupying State may not be able to fulfil the full spectrum of obligations immediately.²²

In addition to the law of occupation, human rights treaties continue to apply in situations of occupation as it is generally recognized that such rights “belong to the people” and so “[...] protection devolves with territory [...]”.²³ Treaties ratified by the occupier when acting in occupied territory on an extra-territorial basis also remain applicable.²⁴ The exact basis of applicability, however,

and Samaria et al., HCJ 393/82, Judgment of 28 December 1983, para. 37 [Jam’iat Iscan Case]; note Articles 27-34 and 47-78, *Geneva Convention Relative to the Protection of Civilian Persons in Time of War of August 12, 12 August 1949*, 75 UNTS 287 [1949 Geneva Convention IV]; see also Schwenk, *supra* note 18, 398; D. Kretzmer, ‘The law of belligerent occupation in the Supreme Court of Israel’, 94 *International Review of the Red Cross* (2012) 885, 207, 216-222; E. Benvenisti, *The International Law of Occupation* (1993), 53.

²⁰ Benvenisti, *Occupation*, *supra* note 16, 78; Sassòli, *supra* note 17, 679.

²¹ *Jam’iat Iscan Case*, *supra* note 19, para. 18.

²² Eritrea-Ethiopia Claims Commission, *Partial Award: Western Front, Aerial Bombardment and Related Claims – Eritrea’s Claims 1, 3, 5, 9-13, 14, 19, 21, 25 & 26* (2005), para. 27 [EECC, Western Front]; F. J. Hampson, ‘The Relationship Between International Humanitarian Law and Human Rights Law From the Perspective of a Human Rights Treaty Body’ 90 *International Review of the Red Cross* (2008) 871, 549, 568; Lubell, *supra* note 12, 322; Benvenisti, *Occupation*, *supra* note 16, 76.

²³ Human Rights Committee, *General Comment No. 26: General Comment on Issues Relating to the Continuity of Obligations to the International Covenant on Civil and Political Rights*, UN Doc CCPR/C/21/Rev.1/Add.8/Rev.1, 8 December 1997, para. 4; note the view that the US and Israel may be persistent objectors to the continuity of human rights obligations during occupation, see Benvenisti, *Occupation*, *ibid.*, 14-15.

²⁴ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, ICJ Reports 2004, 136, 178-180, paras. 106-112; the ICJ held Uganda responsible for breaches of human rights obligations carried out when an *occupying power*

is less settled. The dominant approach, arguably, is rooted in the jurisdictional requirement of “[...] effective control over territory”, found in both regimes.²⁵ Furthermore, the precise methodology and parameters of the co-application of human rights law alongside occupation law remain unclear, with many suggestions of the need for a rule-by-rule analysis and interpretation.²⁶

The authors of the comprehensive 2005 *Customary Humanitarian International Law Study* openly used international human rights instruments to “[...] support, strengthen and clarify analogous principles of international humanitarian law”.²⁷ Thus, where the two obligations share the same objective, generally the protection of civilians and civilian objects, co-application can work by allowing human rights instruments and jurisprudence to help interpret obligations in the law of occupation in a mutually reinforcing way.²⁸ In this way, in her analysis for the ILC’s PErAC work, Special Rapporteur Lehto opened a gateway to environmental human rights through the obligation on the occupying power of ensuring and maintaining public health and hygiene in the occupied territory,²⁹ arguing that human rights law could be used to “enrich and

in the DRC, *DRC v. Uganda*, *supra* note 1, paras. 178-180 and 216-220; see also *Loizidou v. Turkey*, ECtHR Application No. 15318/89, Judgment of 18 December 1996; *Al-Skeini and Others v. The United Kingdom*, ECtHR Application No. 55721/07, Judgment of 7 July 2011, paras. 139-145; the Human Rights Committee of the *International Covenant on Civil and Political Rights*, 16 December 1966, 999 UNTS 171 [ICCPR] confirmed the Covenant’s applicability to “[...] anyone within the power or effective control of that State Party, even if not situated within the territory of the State Party” in *General Comment No. 31: The Nature of the General Legal Obligation Imposed on State Parties to the Covenant*, UN Doc CCPR/C/21/Rev.1/Add.13, 26 May 2004, para. 10 [Comment 31]; the Committee on Economic, Social and Cultural rights (CESCR) has made a similar observation as regards the *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, 993 UNTS 3 (ICESCR) at *Concluding Observations of the Committee on Economic, Social and Cultural Rights: Israel*, E/C.12/1/Add.90, 26 June 2003, para. 31.

²⁵ ICRC, *Occupation Expert Meeting*, *supra* note 16, 61-67; note also the development of the *State agent authority* approach in the jurisprudence of the ICJ and European Court of Human Rights, Lubell, *supra* note 12, 319-324.

²⁶ ICRC, *Occupation Expert Meeting*, *supra* note 16., 64.

²⁷ J.-M. Henckaerts & L. Doswald-Beck, *Customary Humanitarian International Law, Volume I: Rules* (2005), xxxvii.

²⁸ An immense body of jurisprudence, institutional and academic writing has been dedicated to this topic. See for example, G. Oberleitner, *Human Rights in Armed Conflict: Law, Practice, Policy* (2015); R. Kolb, & G. Gaggioli (eds), *Research Handbook on Human Rights and Humanitarian Law* (2013); D. Murray *et al*, *Practitioners’ Guide to Human Rights Law in Armed Conflict* (2016).

²⁹ *1949 Geneva Convention IV*, *supra* note 19, Art. 56; Lehto, *First Report*, *supra* note 6, para. 65.

deepen³⁰ these rules of the law of occupation. This approach allowed the Special Rapporteur to expand the *healthcare* concept within the law of occupation to encompass the threats to health caused by environmental contaminants and pollution, disease, as well as environmental degradation and, in some contexts, the depletion of natural resources.³¹ A similar approach would allow expansion of the occupier's obligation to ensure *food* supplies of the occupied population³² to include the environmental dimensions of the human rights to food and water.³³ In the same way, environmental human rights obligations can help interpret the principal duty of the occupier of ensuring security and restoring social functions, including the welfare of the occupied population.³⁴

Adopting such a norm-by-norm approach, however, does not appear to be a very systematic way to analyze environmental protection during occupation – principally, as there is no central notion of protection of the *environment* in occupation law to be interpreted, but only a selection of potential, but rather peripheral terms, such as *food* and *health*. This contribution suggests, therefore, that a more effective approach is in establishing the *minimum core obligations* of the body of environmental human rights, since, by definition, minimum core obligations remain binding at all times.³⁵ Clearly, moving beyond this core of obligations, individual States may have higher standards due to specific treaty obligations.

³⁰ Lehto, *First Report, ibid.*, para. 59.

³¹ *Ibid.*, para. 66 and the sources referenced.

³² *1949 Geneva Convention IV, supra* note 19, arts. 55 and 59 (emphasis added).

³³ UN Committee on Economic, Social and Cultural Rights (CESCR), *General Comment No.15: The Right to Water (arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)*, UN Doc E/C.12/2002/11, 20 January 2003, para. 37(a-c) [General Comment No. 15]. See generally M. Tignino, 'The Right to Water and Sanitation in Post-Conflict Legal Mechanisms: An Emerging Regime?', in E. Weintal, J. Troell & M. Nakayama, *Water and Post-Conflict Peacebuilding* (2014), 383.

³⁴ Note the ILC Draft Commentary for the proposition that environmental protection is a "[...] widely recognized public function of the modern State", and, therefore, environmental protection fits within the obligations to ensure *public order and safety* and the welfare of the civilian population for Article 43 of the 1907 Hague Regulations, *ILC Draft Commentary, supra* note 9, 268, 269, referencing the "[...] widely recognized public function [...]" argument advanced by K. Conca, *An Unfinished Foundation: The United Nations and Global Environmental Governance* (2015), 108.

³⁵ CESCR, *General Comment No. 3: The Nature of States Parties' Obligations (art. 2, para. 1 of the Covenant)*, UN Doc E/1991/23-E/C.12/1990/8 and Corr.1, annex III, 14 December 1990, paras. 9-10; note some expert opinions at ICRC, *Occupation Expert Meeting, supra* note 16, 65.

Identifying the minimum core obligations also recognizes that States always have a core duty of obligations whatever the realities of the security situation on the ground, thus assuming that it may not be able to fulfil the entire spectrum of obligations immediately and to their full³⁶, but must work towards this. On this point, the jurisprudence of the European Court of Human Rights relevant to occupation suggests a flexible approach in that the level of protection is commensurate with the extent of control.³⁷ Furthermore, the minimum core approach also aligns with the tripartite approach within economic, social, and cultural rights to *respect, protect and fulfil* as these obligations generally become more onerous on the State as it moves from *respect* (refrain from interfering with the enjoyment of human rights), through *protect* (protect against human rights abuses by third parties) to *fulfil* (positive action to facilitate the enjoyment of human rights).³⁸ The focus on minimum core obligations as the starting point for analysis also recognizes the nature of environmental human rights, which tend to be obligations of progressive realization based on the availability of State resources and circumstances, which is particularly relevant to occupation.³⁹

C. ILC Draft Principles on Protection of the Environment in Relation to Occupation

This section will analyze the recently adopted ILC Draft Principles as these substantially add to the international practice in this area and, hence, offer a new way to conceive of environmental protection during occupation. The three Draft Principles are as follows:

³⁶ Hampson, *supra* note 22, 568; Lubell, *supra* note 12, 322-334.

³⁷ See the applicants' similar arguments of a proportionate approach in *Bankovic and Others v. Belgium and Others*, ECtHR, Application No. 52207/99, Judgment of 12 December 2001, paras. 52 and 75. Lubell prefers *contextual* approach, see Lubell, *supra* note 12, 322; and Murray prefers a *dividing and tailoring approach* to human rights obligations, see Murray *et al*, *supra* note 28, 62-63; based on the language drawn from *Al-Skeini and Others v. The United Kingdom*, ECtHR, Application No. 55721/07, Judgment of 7 July 2011, para. 137.

³⁸ See Comment 31, *supra* note 24, para. 6; para. 7 stipulates that "Article 2 requires that States Parties adopt legislative, judicial, administrative, educative and other appropriate measures in order to fulfil their legal obligations"; ICESCR, Article 2.

³⁹ Lehto recognizes that economic, social and cultural rights are particularly relevant for occupied territory, especially due to the aspect of progressive realization, which takes into account resource constraints that are also a feature of occupation, Lehto, *First Report*, *supra* note 6, para. 61.

Principle 20: General obligations of an Occupying Power

1. An Occupying Power shall respect and protect the environment of the occupied territory in accordance with applicable international law and take environmental considerations into account in the administration of such territory.
2. An Occupying Power shall take appropriate measures to prevent significant harm to the environment of the occupied territory that is likely to prejudice the health and well-being of the population of the occupied territory.
3. An Occupying Power shall respect the law and institutions of the occupied territory concerning the protection of the environment and may only introduce changes within the limits provided by the law of armed conflict.

Principle 21: Sustainable use of natural resources

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 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 environmental harm.

Principle 22: Due diligence

An Occupying Power shall exercise due diligence to ensure that activities in the occupied territory do not cause significant harm to the environment of areas beyond the occupied territory.

The three Draft Principles above relate specifically to the situation of occupation (numbered 20-22), although others may also apply depending on the circumstances.⁴⁰ Since the law of occupation does not specifically include reference to the *environment*, these three Draft Principles are very welcome in advancing law and practice in this area. Especially welcome is the definitive statement regarding protection of the environment in Draft Principle 20(1), which recognizes the requirement on the occupier to “[...] respect and protect the environment [...]” of the occupied territory and take “[...] environmental considerations into account [...]” in the administration of such territory.⁴¹

⁴⁰ *ILC Draft Commentary*, *supra* note 9, 268.

⁴¹ *Draft Principles*, *supra* note 4.

The *respect and protect* formula makes clear that the obligation adopts a human rights framing and is a reflection of the co-application of human rights as part of the “applicable international law”, as explained in the ILC Draft Commentary.⁴² However, the exact *applicable law* is still unclear, hence this contribution aims to help clarify this aspect, as well as explore and firm up the “environmental considerations” required of Occupying Powers.⁴³ Linking with Draft Principles 10 and 11 on corporate due diligence and liability, the inclusion of *protect* within Draft Principle 20(1) may also capture the requirement that the occupier must take measures to prevent third parties from causing environmental damage, such as individuals, companies, and armed non-State actors.

In her First Report, Special Rapporteur Lehto included extensive analysis of the environmental rights dimensions of the human right to health, but it was the ILC Drafting Committee that added Draft Principle 20(2). This provision clarifies the existence of a due diligence obligation on occupying States to “[...] prevent significant harm to the environment [...]”. As is well known, conflict and other crises typically lead to wide-ranging destruction of the environment and to gaps in the management and governance of environmental resources.⁴⁴ Going further, reading the Draft Commentary, it becomes apparent that the provision in fact was designed to recognize that occupiers “[...] may have to take proactive measures to address immediate environmental problems”.⁴⁵ This is a very positive clarification of the law as regards environmental protection.

In another respect, however, the wording of Draft Principle 20(2) is somewhat problematic. As currently drafted, Draft Principle 20(2) appears to require a cumulative causal connection, namely that such significant environmental harm also be “[...] likely to prejudice the health and well-being of the population”. One again needs to read the Draft Commentary for clarification, since here it is mentioned that reading these clauses as imposing two cumulative thresholds is contrary to the ILC’s express instructions.⁴⁶ In

⁴² *ILC Draft Commentary, supra* note 9, 269.

⁴³ *Ibid.*, 268-271.

⁴⁴ K. Hulme, *War Torn Environment: Interpreting the Legal Threshold* (2004); B. Sjöstedt, ‘The Role of Multilateral Environmental Agreements in Armed Conflict: ‘Green-keeping’ in Virunga Park: Applying the UNESCO World Heritage Convention in the Armed Conflict of the Democratic Republic of the Congo’, 82 *Nordic Journal of International Law* (2013) 1, 129; D. Jensen & S. Lonergan (eds), *Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding* (2012), see also the post-conflict assessments by UNEP.

⁴⁵ *ILC Draft Commentary, supra* note 9, 275.

⁴⁶ *Ibid.*, 273.

addition, the second clause is also arguably both redundant and overly limiting, and it introduces unnecessary anthropocentrism. The focus on health in the provision ignores the co-application of other human rights. As will be analyzed in this contribution, and as alluded to in the Draft Commentary, these other human rights go further than simply “health and well-being”.⁴⁷

Draft Principle 20(3) reflects occupation law’s *conservationist* approach to the existing laws of the State under occupation, namely, conserving the law and institutions of the occupied territory until that State’s government retakes control.⁴⁸ Principally, the law of the occupied State itself continues in force “unless absolutely prevented”⁴⁹, which obligation clearly includes any existing environmental and human rights laws of the occupied State, although it should be highlighted that many States have a host of laws on the books, so to speak, but little environmental protection may be observed in practice. Thus, helpfully, the Draft Commentary to Draft Principle 20(3) suggests that “[...] some active interference in the law and institutions concerning the environment of the occupied territory may thus be required [...]”, while also acknowledging the legal limits imposed by Article 43.⁵⁰

The longer an occupation lasts, the Draft Commentary continues, “[...] the more evident is the need for proactive action [...]”⁵¹ to ensure environmental protection. Yet the limits of such action are not very clear at present.⁵² Furthermore, as Weir has highlighted, to fulfil the obligation in Draft Principle 20(3), “[...] while the legislation of the occupied territory can be respected, without ensuring that the occupied territory has the capacity and resources to implement the protections stemming from its legislation, this principle may lack meaning in practice [...]”.⁵³ Therefore, there should arguably be explicit acknowledgement that the occupier has a duty to ensure sufficient capacity and adequate resourcing of those institutions.

⁴⁷ *Ibid.*, 271-274.

⁴⁸ Sassòli, *supra* note 17, 661.

⁴⁹ Article 43, *1907 Hague Regulations*, *supra* note 15 and Article 64 of the *1949 Geneva Convention IV*, *supra* note 19, recognize the temporary *trusteeship* of the occupying power.

⁵⁰ *ILC Draft Commentary*, *supra* note 9, 275.

⁵¹ *Ibid.*, 274-275.

⁵² For recent issues raised by the transformational/liberationist nature of the Iraqi occupation, see A. Roberts, ‘Transformative Military Occupation: Applying the Laws of War and Human Rights’, 100 *American Journal of International Law* (2006) 3, 580.

⁵³ D. Weir, Conflict and Environment Observatory, ‘How Should the Environment be Protected in Situations of Occupation?’ (2018), available at <https://ceobs.org/how-should-the-environment-be-protected-in-situations-of-occupation/> (note the author was using the previous numbering of Draft Principle 19(2)) (last visited 01 February 2020).

Draft Principle 21 focuses on the permitted use of the natural resources of the occupied territory. In an important and evocative selection of terminology, the Draft Principle eschews the historic notion of usufruct⁵⁴ for the seminal notion of *sustainable use* and the minimization of environmental harm.⁵⁵ The crux is in preventing the over-exploitation of natural resources, recognizing the temporary character of occupation, and so safeguarding the occupied State's property and means of subsistence. Finally, Draft Principle 22 reflects the law on State responsibility, requiring due diligence by the occupier to ensure significant transboundary environmental harm does not emanate from the occupied territory.⁵⁶

The ILC Draft Principles provide valuable clarification of environmental protection obligations during occupation. This contribution will elucidate whether a broader exploration of environmental human rights law helps to provide more detail regarding what *proactive measures* and *active interferences* might be required.

D. Environmental Human Rights

I. Introduction to Environmental Human Rights

This section will examine the current state of *environmental human rights* and establish the methodology for the distillation of the *minimum core* of those rights that should at all times be observed.

Central to the enjoyment of most human rights is undoubtedly the need for a healthy environment, which provides the necessary basis from which most other human rights are possible, such as the human rights to development, food, water, health, and even the right to life itself.⁵⁷ Many human rights that are protected in the two 1966 International Covenants (namely the ICCPR and

⁵⁴ Article 55, *1907 Hague Regulations*, *supra* note 15. For a detailed analysis of usufruct, see A. Borkowski, *Textbook on Roman Law*, 2nd ed, (1997). Privately owned resources and property is protected from confiscation and pillage (Articles 46 and 47, 1907 Hague Regulations), but can be requisitioned for the army's needs but must be paid for in cash as far as possible (Article 52, 1907 Hague Regulations).

⁵⁵ The rules on usufruct are fully reflected however, see *ILC Draft Commentary*, *supra* note 9, 276-277.

⁵⁶ See the sources references in the *ILC Draft Commentary*, *ibid*, 279-280, including Principle 21, 'Stockholm Declaration of the United Nations Conference on the Human Environment', *26 Yearbook of the United Nations* (1972), 319 [Stockholm Declaration].

⁵⁷ See *ibid.*, *Stockholm Declaration*, para.1 & Principle 1.

ICESCR)⁵⁸ have, thus, already been developed with a *greener* side to them, where the environmental component of the right is emphasized. For example, the right to life now extends beyond killings by State agents to include also considerations of how air pollution and toxic contamination can impact a healthy life,⁵⁹ and, more recently, the need to “[...] preserve the environment and protect it against harm, pollution and climate change caused by public and private actors”.⁶⁰ The greening of rights, particularly economic, social, and cultural rights, has occurred on a global level, and, thus, human rights have been infused with environmental protection.⁶¹ As the two Covenants are universally binding, all the attendant environmental human rights developed from these instruments are also universally binding.

In addition, a number of regional human rights treaties explicitly recognize a separate human right to a healthy environment (or words to that effect),⁶² alongside a growing number of States in their national laws.⁶³ The *right to environment*, as these rights are labelled, tends to be a broader approach to that achieved by *greening* existing rights, emphasizing also the promotion of conservation as well as the prevention of ecological degradation beyond that which has an impact on human health or related property rights.⁶⁴ Thus, the

⁵⁸ *Supra* note 24.

⁵⁹ Note the deliberations in the Human Rights Committee of the ICCPR, *General comment no. 36 on Article 6 of the International Covenant on Civil and Political Rights, on the right to life : revised draft / prepared by Yuval Shany et Sir Nigel Rodley, Rapporteurs*, CCPR/C/GC/R.36/Rev.6, 16 November 2016, para.28; see also the Indian jurisprudence on the constitutional right to life, *Subhash Kumar v. State of Bihar*, Judgment of 9 January 1991, 1991 1 SCC (1) 598.

⁶⁰ Human Rights Committee, *General Comment No. 36 (2019) Article 6:Right to Life, of the International Covenant on Civil and Political Rights*, UN Doc CCPR/C/GC/36, 3 September 2019, para. 62 [General Comment No. 36].

⁶¹ J. H. Knox, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, UN Doc A/HRC/37/59, 24 January 2018, paras. 12-27 [Knox, January 2018 Report].

⁶² Four regional systems recognize the right to a *healthy* environment, or similar: *Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights*, 14 November 1988, Art. 11; *African Charter on Human and Peoples' Rights*, 27 June 1981, Art. 24; Article 38, *Arab Charter on Human Rights*, 22 May 2004, Art. 38; *ASEAN Human Rights Declaration*, 18 November 2012, Art. 28(f), available at <https://aichr.org/wp-content/uploads/2018/10/ASEAN-Human-Rights-Declaration.pdf> (last visited 02 February 2020).

⁶³ Boyd, *supra* note 13, lists 92 States that had adopted such a right (by c.2012), 53-57.

⁶⁴ CESCR, *Statement in the Context of the Rio+20 Conference on 'the Green Economy in the Context of Sustainable Development and Poverty Eradication', adopted by the Committee*

right to environment generally provides much-needed protection for soil and water quality, and even the protection of biodiversity in ensuring viable and healthy ecosystems.⁶⁵

Consequently, according to one author's analysis, 178 States have recognized the right to a healthy environment.⁶⁶ Importantly, of the four key States who do not recognize a right to a healthy environment (China, the United States, Canada, and Australia), only the US is not party to ICESCR, but is party to the ICCPR and so is subject to the expanded, *greened* interpretation of the right to life.⁶⁷ In 2018, John Knox, the first UN Special Rapporteur on the right to a healthy environment, opined that it was time that the UN formally recognized a global right to a healthy environment.⁶⁸ Knox set out the 2018 *Framework Principles on Human Rights and the Environment*,⁶⁹ involving sixteen basic obligations of States drawn from human rights law.⁷⁰ Due to the greening of global rights, in particular, Knox opined that State obligations to respect, protect, and fulfil human rights "[...] apply in the environmental context no less than in any other",⁷¹ and, thus, that the creation and "[e]xplicit recognition" of a specific right in a treaty instrument had proven to be unnecessary.⁷²

The human rights obligations will need to be analyzed for each State acting as an occupying power on an individual basis, taking into account its

at its forty-eighth session, 30 April-18 May 2012, UN Doc E/C.12/2012/1, 4 June 2012, para.6(e); CESCR, *Report of the Committee on Economic, Social and Cultural Rights for the Thirty-Second and Thirty-Third sessions: Consideration of Reports submitted by States Parties under Articles 16 and 17: Ecuador*, UN Doc E/C.12/2004/9, 26 April-14 May 2004, 8-26 November 2004, para. 278 [CESCR, Ecuador].

⁶⁵ See the Indian jurisprudence on the constitutional right to life, *Subhash Kumar v. State of Bihar*, *supra* note 59; and Costa Rican jurisprudence on protecting biodiversity and groundwater, *Luis Arturo Morales Campos, Recurso de amparo*, expediente 11-002110-0007-CO, 10 May 2011; *Caribbean Conservation Corporation and Others v. Costa Rica* (Green Turtles Case), Sala constitucional de la corte suprema de justicia Costa Rica, Decision 01250-99, 15 February 1999. A. Palmer & C. A. R. Robb (eds), *International Environmental Law Reports, Volume 4: International Environmental Law in National Courts* (2005), 186-196.

⁶⁶ See Boyd, *supra* note 13, 92.

⁶⁷ *General Comment No. 36*, *supra* note 60, para. 62.

⁶⁸ J. H. Knox, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, A/73/188, 19 July 2018, para. 37 [Knox, July 2018 Report].

⁶⁹ *Knox, January 2018 Report*, *supra* note 61.

⁷⁰ *Ibid.*, para. 8.

⁷¹ *Ibid.*, para. 12.

⁷² *Ibid.*, para. 13.

own domestic practice, as well as regional and international obligations. As a starting point, the current contribution seeks to establish what could be classed as the *minimum core obligations* of States as evidenced either as a customary international law rule or general principle of international law.⁷³ Beyond the core minimum, States may have additional obligations drawn from their own treaty membership.

II. Establishing the Minimum Core of Environmental Human Rights

There has been a great deal written on environmental human rights over the past two decades, analyzing key State developments, cases, or regional rights regimes, and specific approaches to embodying rights, such as that of procedural rights or constitutional rights.⁷⁴ This contribution will draw from these sources, noting any limitations,⁷⁵ to try to discern a set of core obligations for one overarching set of environmental human rights. The aim is, partly, to provoke discussion on the selection made of core obligations and their formulation, as well as to provide a minimum core basis for applicability during occupation.

⁷³ *Case Concerning Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America)*, Judgement, ICJ Reports 1986, 114; R. R Baxter, 'Multilateral Treaties as Evidence of Customary International Law', 41 *British Yearbook of International Law* (1965-66), 275.

⁷⁴ See for example, Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment*, *supra* note 13; May & Daly, *Global Environmental Constitutionalism*, *supra* note 13; O.W. Pedersen, 'The Ties That Bind: The Environment, the European Convention on Human Rights and the Rule of Law', 16 *European Public Law* (2010) 4, 571; A. Boyle, 'Human Rights or Environmental Rights? A Reassessment', 18 *Fordham Environmental Law Review* (2007) 3, 471, 487; D. Shelton, 'Human Rights and the Environment: What Specific Environmental Rights have been Recognized?', 35 *Denver Journal of International Law & Policy* (2006) 1, 129; S.J. Turner *et al.* (eds), *Environmental Rights: The Development of Standards* (2019).

⁷⁵ Depending on the relevant rights system, environmental human rights may contain limitation clauses, be subject to derogation as well as obligations of progressive realisation, note ICESCR, Art. 2(1). See generally M. Sepulveda, *The Nature of the Obligations Under the International Covenant on Economic, Social and Cultural Rights* (2003).

1. Freedom From Environmental Harm

a. Ensuring a Baseline Level of Environmental Health

It is clearly recognized at the global level that the achievement of most human rights necessitates an environment of at least a baseline level of quality, or *environmental health*.⁷⁶ It is commonly phrased in terms of an “[...] undeniable link between the protection of the environment and the enjoyment of other human rights”.⁷⁷ Thus, access to unpolluted air, soil, and water is not simply a *luxury*, but is a necessity for basic human subsistence and survival.⁷⁸ The human rights to health, water, shelter, and food, for example, all include a quality requirement that the necessary natural resources must be safe from contamination.⁷⁹ *General Comment No.15 on the Right to Water*, for example, addresses the need for drinking and bathing water to “be safe”, and, therefore, “[...] free from micro-organisms, chemical substances and radiological *hazards* that constitute a threat to a person’s health”,⁸⁰ referencing World Health Organization (WHO) Guidelines for Drinking Water Quality. Furthermore, the right to health is probably the most extensive in requiring the State to prevent and reduce the “[...] population’s exposure to harmful substances such as radiation and harmful chemicals or other detrimental environmental conditions that directly or indirectly impact upon human health”.⁸¹ The right to health, “[...] embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life [...]”, specifically referencing “a *healthy environment*”.⁸² But the right to health includes not only the direct

⁷⁶ *Vienna Declaration and Programme of Action*, UN Doc A/CONF.157/23, 12 July 1993; *Stockholm Declaration*, *supra* note 56, Principle 1.

⁷⁷ *Kawas-Fernández v. Honduras (Merits, Reparations and Costs)*, Judgment of 3 April 2009, IACtHR Series C, No. 196, para. 148.

⁷⁸ H. Shue, *Basic Rights: Subsistence, Affluence and United States Foreign Policy* (1980), 23; Sax identifies the right to a healthy environment as forming part of welfare State ideology, J. L. Sax, ‘The Search for Environmental Rights’, 6 *Journal of Land Use & Environmental Law* (1990), 93, 95; T. Hayward, *Constitutional Environmental Rights* (2005), 210.

⁷⁹ For example, CESCR, *General Comment No. 14 (2000) The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social and Cultural Rights)*, UN Doc E/C.12/2000/4, 11 August 2000, para.12(a)-(d) [General Comment No. 14]; *General Comment No.15*, *supra* note 33, para. 12(b); ICESCR, *General Comment 12, The Right to Adequate Food (Art. 11)*, UN Doc E/C.12/1999/5, 12 May 1999, para. 8 [General Comment 12].

⁸⁰ *General Comment No. 15*, *supra* note 33, para. 12(b).

⁸¹ *General Comment No. 14*, *supra* note 79, para. 15.

⁸² *Ibid.*, para. 4 (emphasis added).

impacts on health from contaminated water, for example, but also detrimental environmental conditions that “[...] indirectly impact upon human health” under the notion of the “[...] right to healthy natural and workplace environments”⁸³ such as unlawful air, water, and soil pollution through industrial waste.⁸⁴ The Committee on Economic, Social, and Cultural Rights (CESCR) has stipulated more broadly that, in regards to environmental pollution, the right to health is violated by “[...] the failure to enact or enforce laws to prevent the pollution of water, air and soil by extractive and manufacturing industries”.⁸⁵

Most recently, the fundamental, non-derogable right to life has also been interpreted at the international, regional, and domestic levels to require positive measures designed to protect people from the serious risks posed by environmental pollution. The new, ground-breaking *General Comment No. 36 on the Right to Life*, adopted by the Human Rights Committee of the International Covenant of Civil and Political Rights (ICCPR),⁸⁶ expresses the right to life in terms more akin to a right to a healthy environment.⁸⁷ Consequently, State parties are directed to:

“[...] ensure sustainable use of natural resources, develop and implement substantive environmental standards, conduct environmental impact assessments and consult with relevant States about activities likely to have a significant impact on the environment, provide notification to other States concerned about natural disasters and emergencies and cooperate with them, provide appropriate access to information on environmental hazards and pay due regard to the precautionary approach.”⁸⁸

Regional systems have also clarified State obligations under the right to life as including severe environmental pollution or risk to life.⁸⁹ In the jurisprudence of the European Court of Human Rights, for example, the Court refers to

⁸³ *Ibid.*, para.15.

⁸⁴ *Ibid.*, para. 34.

⁸⁵ *General Comment No. 14*, *supra* note 79, para. 51.

⁸⁶ *General Comment No. 36*, *supra* note 60.

⁸⁷ *Ibid.*, para. 62.

⁸⁸ *Ibid.*, para. 62.

⁸⁹ *Report on the Situation of Human Rights in Ecuador (1997)*, IACHR Country Reports, OEA/Ser.L/V/II.96 Doc 10 rev. 1, 24 April 1997; *Öneriyildiz v. Turkey*, ECtHR Application No. 48939/99, Judgment of 30 November 2004; *Case of the Yakye Axa Indigenous Community v. Paraguay*, Judgment of 17 June 2005, IACtHR Series C, No. 125 [Yakye Axa Case].

“[...] industrial activities, which by their very nature are dangerous, such as the operation of waste-collection sites [...]”,⁹⁰ while in finding a breach of the right to life, in *The Social and Economic Rights Action Centre (SERAC) and Another v. Nigeria* case, the African Commission on Human Rights held, the “[...] pollution and environmental degradation to a level humanly unacceptable has made it [sic] living in the Ogoni land a nightmare.”⁹¹ Right to life jurisprudence is probably at its most expansive in certain domestic constitutional settings, however, such as India and Bangladesh.⁹² Here, the right to a healthy environment was judicially crafted out of the constitutionally protected right to life, to require “[...] the protection and preservation of environment, ecological balance *free from pollution of air and water*, sanitation without which life cannot be enjoyed”,⁹³ and has helped the Indian Supreme Court to tackle air, water, and soil pollution.⁹⁴ In sum, the right to a baseline of environmental health is inherent in all of the rights-based approaches, whether that involves the greening of other rights or the specific rights guaranteeing a healthy environment.

There are limitations, however, in existing practice on the baseline level of environmental hazard or harm. Under the European Convention on Human Rights, protection against harmful pollution requires some human harm, or, at least, a risk to humans, generally from living within the vicinity of the source of pollution or harm.⁹⁵ There are also issues concerning where the baseline threshold of environmental health is set. Notably, recognizing that the standard of a pristine environment is unobtainable, there is a need to establish an

⁹⁰ *Öneryildiz v. Turkey*, *supra* note 89, 24, para. 71.

⁹¹ African Commission on Human and People’s Rights, *Social and Economic Rights Action Center & the Center for Economic and Social Rights v. Nigeria*, Communication No. 155/96, ACHPR/COMM/A044/1, May 27 2002, para. 67 [SERAC v. Nigeria]; see also *Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan*, Communication No. 279/03, 296/05, AHRLR 100, 27 May 2009, 153.

⁹² *Dr. M. Farooque v. Bangladesh*, 49 DLR (AD) 1997, 1.

⁹³ *Virender Gaur v. State of Haryana*, Judgement of 24 November 1994, Case No. 9151/1994, 1995 2 SCC 577 (emphasis added). See also *Subhash Kumar v. State of Bihar*, *supra* note 59, which opened the door to such judicial activism and the consequent expansion of environmental protection in India.

⁹⁴ *M.C. Mehta v. Union of India & ors*, Judgment of 5 April 2002, 2002 4 SCC 356; see also A. Rosencranz & M. Jackson, ‘The Delhi Pollution Case: The Supreme Court of India and the Limits of Judicial Power’, 28 *Columbia Journal of Environmental Law* (2003) 2, 223; *Tirupur Dyeing Factory Owners Ass. v. Noyyal River Protection Ass. & et. al.*, Civil Appeal, No. 6776/2009; *A.P. Pollution Control Board II v. Prof. M.V. Nayudu & Ors* [2000] INSC 679; and Boyd, *supra* note 13, 175-183.

⁹⁵ *Kyrtatos v. Greece*, ECtHR Application No. 41666/98, Judgment of 22 May 2003, paras. 52-53; *Öneryildiz v. Turkey*, *supra* note 89.

acceptable baseline level of allowable environmental pollution.⁹⁶ That standard will naturally need to adapt due to the circumstances, such as the level of environmental health expected to be achieved during armed conflict will clearly be lower than allowable during peacetime. When contemplating the minimum core obligation of the right for a healthy life with dignity, environmental human rights law in the European and African regional systems already establish a required baseline level of environmental health, as evidenced above, and thus a baseline level of environmental health that it is not lawful to drop below. Similarly, Sax argues that a “[...] standard of maximum permissible exposure to environmental hazards could be articulated in terms of a minimal standard of permissible exposure to mortal hazard”.⁹⁷

Finally, in terms of an implementation timeframe, while analogous economic, social, and cultural rights are subject to the obligation of progressive realization, it must be recognized that certain aspects of the obligation are immediate, including the requirement to adopt a plan towards their realization and to undertake concrete steps in that direction using the maximum available resources.⁹⁸

b. Managing Environmental Risk

The second, broader dimension discernible from environmental human rights obligations is the right to live free of serious environmentally-related hazards to life.⁹⁹ While risk is clearly inherent in the jurisprudence of the European Court of Human Rights through a series of cases dealing with toxic pollution,¹⁰⁰ it is possibly heightened when we move beyond the industrial pollution paradigm. In *Budayeva and Others v. Russia* (2008),¹⁰¹ the European Court of Human Rights had to rule on issues of State inaction in preventing a

⁹⁶ Sax, *supra* note 78, 100.

⁹⁷ Sax, *ibid.*

⁹⁸ CESCR, *General Comment No. 3: The Nature of States Parties' Obligations, Art. 2, para. 1 of the Covenant*, UN Doc E/1991/23-E/C.12/1990/8 and Corr.1, annex III, 14 December 1990, para. 9.

⁹⁹ To note the wording by Sax, *supra* note 78, 100.

¹⁰⁰ Most cases are dealt with under Article 8 of the ECHR, such as *López Ostra v. Spain*, ECtHR Application No. 16798/90, Judgment of 9 December 1994; *Taskin v. Turkey*, ECtHR Application No. 46117/99, Judgment of 10 November 2004; *Tătar v. Romania*, ECtHR Application No. 67021/01, Judgment of 27 January 2009; *Cordella and Others v. Italy*, ECtHR Application Nos. 54414/13 and 54264/15, Judgment of 24 January 2019.

¹⁰¹ ECtHR Application Nos. 15339/02, 21166/02, 20058/02, 11673/02 and 15343/02, Judgment of 20 March 2008.

recurring natural disaster, namely flooding and mudslides which caused several deaths. In cases of natural disasters, the Court held that only foreseeable and clearly identifiable impacts on the right to life would breach Article 2.¹⁰² This was not a problem in the instant case due to the State's knowledge of the risk from previous incidents, clear advance warning from the Russian agency tasked with monitoring the river and dam, the State's failure to subsequently repair the dam, and its failure to issue a warning to the nearby population.¹⁰³

While there is clearly an overlap with the pollution dimension of the right, this aspect refers more to the creation of a situation of risks to life or State inaction in the face of such risks. One example, therefore, drawn from the Budayeva case would be inadequate disaster risk management.¹⁰⁴ As with the pollution dimension, the right would be breached due to the foreseeability of the injury or risk of injury and the level of due diligence of the State in mitigating the injury or risks.¹⁰⁵ This approach is also reflected in *Öneryildiz v. Turkey* (2004),¹⁰⁶ where the severe risks to life were known to the State. The European Court of Human Rights assessed the “[...] weight to be attached to the issue of respect for the public's right to information [...]” and observed that the Turkish Government “[...] have not shown that any measures were taken in the instant case to provide the inhabitants of the Ümraniye slums with *information enabling them to assess the risks* they might run as a result of the choices they had made” [i.e., building their homes on a waste heap].¹⁰⁷ Specifically, therefore, within the right to life, the European Court of Human Rights has recognized a *positive obligation* on the State to ensure the right to receive information about significant health risks, which “[...] would allow him to assess any risk to which he had been exposed

¹⁰² *Ibid.*, paras. 135-137. The Court recognized the applicability of Article 2 (right to life) to “[...] any activity, whether public or not [...]”, *ibid.*, para. 130.

¹⁰³ *Ibid.*, para. 29. See also *Kolyadenko and Others v. Russia*, ECtHR Application Nos. 17423/05, 20534/05, 20678/05, 23263/05, 24283/05 and 35673/05, Judgment of 28 February 2012; see also *Özel and Others v. Turkey*, ECtHR Application Nos. 14350/05, 15245/05 and 16051/05, Judgment of 17 November 2015.

¹⁰⁴ See *Rio+20 Outcome Document of the United Nations Conference on Sustainable Development, The Future We Want*, A/CONF.216/L.1, 19 June 2012; *Sendai Framework for Disaster Risk Reduction 2015-2030*, United Nations, 2015, available at http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf (last accessed 3 August 2019).

¹⁰⁵ See in particular *Fadeyeva v. Russia*, ECtHR Application No. 55723/00, Judgment of 9 June 2005, para.128.

¹⁰⁶ *Öneryildiz v. Turkey*, *supra* note 89.

¹⁰⁷ *Ibid.*, para. 108 (emphasis added).

[...].¹⁰⁸ The same approach has also been endorsed in the Advisory Opinion of the Inter-American Court.¹⁰⁹ Similarly, in *SERAC v. Nigeria*, heard in the African Commission on Human and Peoples' Rights, Nigeria was required to provide information, *inter alia*, on health and environmental risks to help protect the population against the serious pollution by the oil industry.¹¹⁰

Similarly, a key part of environmental risk management that is observable within human rights jurisprudence around the globe is the use of environmental impact assessments (EIA),¹¹¹ as well as the creation of emergency plans and effective advance warning systems, undertaking inventories of hazardous and dangerous substances and activities, and close monitoring and regulation of such activities.¹¹² Indeed, going further, breach of relevant environmental standards, contaminant safety standards, or licensing requirements, is often a precursor for the finding of a human rights violation.¹¹³ The jurisprudence, therefore, tends to reinforce the need for State compliance with applicable environmental requirements.¹¹⁴ Indeed, this recognition is also reinforced in the new *General Comment No.36 on the Right to Life*, which emphasizes that the obligation of

¹⁰⁸ Emphasis added. *Roche v. the United Kingdom*, ECtHR Application No. 32555/96, Judgment of 19 October 2005, para. 167, the plaintiff had participated in chemical and biological weapons testing at Porton Down.

¹⁰⁹ *The Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity – Interpretation and Scope of Articles 4(1) and 5(1) of the American Convention on Human Rights*, Advisory Opinion OC-23/18 of 15 November 2017, IACtHR, Series A, No. 23, available at http://www.corteidh.or.cr/docs/opiniones/seriea_23_esp.pdf (last visited 2 August 2019), para. 225 [Advisory Opinion No. 23 (Colombia)].

¹¹⁰ *SERAC v. Nigeria*, *supra* note 91, para. 68 (emphasis added).

¹¹¹ The ICJ has found the obligation of conducting an EIA to be part of general international law (especially in the sense of a transboundary context of a shared resource), see *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, ICJ Reports 2010, 14, para. 204; *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica)*, Judgment, ICJ Reports 2015, 665, para. 104; see also Advisory Opinion No. 23 (Colombia), *supra* note 109, para. 160.

¹¹² See for example *Guerra and Others v. Italy*, ECtHR Application No. 116/1996/735/932, Judgment of 19 February 1998; *López Ostra v. Spain*, *supra* note 100; *Fadeyeva v. Russia*, *supra* note 105.

¹¹³ *Guerra v. Italy*, *ibid.*; *Taskin v. Turkey*, *supra* note 100.

¹¹⁴ A. Boyle, 'Human Rights or Environmental Rights? A Reassessment', 18 *Fordham Environmental Law Review* (2007) 3, 471, 487; Advisory Opinion No. 23 (Colombia), *supra* note 109, para. 146 and Conclusion B.5.

State parties under international environmental law “[...] should thus inform the content [...]” of the human right.¹¹⁵

Central to managing risk, therefore, is the timely gathering of information and its provision to those at risk. The UN Special Rapporteur’s *Framework Principles on Human Rights and the Environment*, for example, require public education and access to environmental information.¹¹⁶ As recognized in the jurisprudence, the provision of information is even more important in situations of public emergency, particularly when faced with unknown and potentially life-threatening levels of environmental risk. Furthermore, the greater or more complex the risk, arguably the broader the education dimension needs to be so that people are better protected. In peacetime conditions, environmental human rights also emphasize public participation in environmental decision-making and meaningful access to justice in environmental matters.¹¹⁷ These dimensions will be more important as occupation becomes protracted.

c. Conserving a Healthy Environment in the Broader, Ecological Sense

Analyzing State practice within human rights monitoring bodies, as well as the practice of those bodies in interpreting treaty obligations, it starts to become apparent that there is a broader ecological approach being adopted. As will be shown, at times this approach moves beyond the strict confines of requiring a baseline level of environmental protection for human health and well-being, to reflect an approach more akin to environmental conservation.

Notably, in the principal case interpreting the right to a healthy environment contained in Article 24 of the African Charter, the African Commission in *SERAC v. Nigeria* required the State “[...] to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources”.¹¹⁸

¹¹⁵ *General Comment No. 36*, *supra* note 60, para. 62.

¹¹⁶ Framework Principles 6 and 7, see Knox, *January 2018 Report*, *supra* note 61, 10, paras.15-19.

¹¹⁷ See *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, 25 June 1998, UNTS 2161, 447; *Taskin v. Turkey*, *supra* note 100; *Case of the Saramaka People v. Suriname*, Judgment of 28 November 2007, IACtHR Series C, No. 172, paras. 133-154 [Saramaka Case]; and Principle 10, ‘United Nations Conference on Environment and Development: Rio Declaration on Environment and Development’, 31 *International Legal Materials* (1992) 4, 874, 878.

¹¹⁸ *SERAC v. Nigeria*, *supra* note 91, para. 52 (emphasis added).

Most recently the Advisory Opinion of the Inter-American Court of Human Rights in interpreting the right to a healthy environment, protected in the San Salvador Protocol,¹¹⁹ stressed that the right

“[...] unlike other rights, protects the components of the environment, such as forests, rivers, seas and others, as legal interests in themselves, even in the absence of certainty or evidence about the risk to individual persons [...] because of its importance to the other living organisms with whom the planet is shared, also deserving of protection in themselves.”¹²⁰

The inclusion of conservation measures within the scope of such rights, and the prevention of ecological degradation beyond that which has an impact on human health or related property rights, goes well beyond the notion of survival rights or welfare State notions of ensuring a healthy environment.

Broader notions of *environmental health* are also evidenced in the CESCR's Concluding Observations for the global rights to health, water, and food, for example, included within its remit, such as those commending State action on dealing with deforestation, waste, and desertification.¹²¹ In the context of the Rio+20 Conference in 2012, the CESCR stated that, as part of the right to health, there is a “[...] need to conserve [...] natural habitat and sustainable uses of natural resources[...].”¹²² Specific mention is made of the “[...] equilibrium of the ecosystem”¹²³ in regards to indigenous communities who receive enhanced protection. Endorsing the Aichi Biodiversity Targets,¹²⁴ and Target 14 in particular, which refers to ecosystem services to human health and well-being,

¹¹⁹ *Supra* note 62.

¹²⁰ Advisory Opinion No. 23 (Colombia), *supra* note 109, para. 62 [translation from Spanish].

¹²¹ *Concluding Observations of the Committee on Economic, Social and Cultural Rights: Paraguay*, 4 January 2008, UN Doc E/C.12/PRY/CO/3, para.10; *Concluding Observations of the Committee on Economic, Social and Cultural Rights: Tunisia*, 14 May 1999, UN Doc E/C.12/1/Add.36, para. 8; *Concluding Observations of the Committee on Economic, Social and Cultural Rights: Bolivia*, UN Doc. E/C.12/BOL/CO/2, 8 August 2008, para. 9.

¹²² *Statement of the Committee on Economic, Social and Cultural Rights in the Context of the Rio+20 Conference (June 2012) on 'the Green Economy in the Context of Sustainable Development and Poverty Eradication'*, adopted by the Committee at its forty-eighth session, 30 April-18 May 2012, UN Doc E/C.12/2012/1, 4 June 2012, para. 6(e).

¹²³ CESCR, *Ecuador*, *supra* note 64, para. 278.

¹²⁴ Decision adopted by the conference of the parties to the convention on biological diversity at its tenth meeting, UN Doc UNEP/CBD/COP/DEC/X/2, 29 October 2010, 9, target 14.

the WHO promotes ecosystem integrity and the integration of ecosystem management considerations into health policy in order to secure water and food security and protection from diseases.¹²⁵ Also recognized is the objective of Aichi Target 15, which refers to the enhancement of ecosystem resilience.¹²⁶

Further evidence of an entrenchment of this conservation-minded approach of the *right to a healthy environment* can be witnessed in domestic human rights practice. For example, in the South American context, in interpreting the right to a “[...] balanced and healthful ecology [...]” the Philippine Supreme Court held that the right “[...] carries with it the correlative duty to refrain from impairing the environment.”¹²⁷ Similarly, the Costa Rican Constitutional Court, applying the right to a healthy and ecologically balanced environment, requires that special protection be given to biodiversity and groundwater.¹²⁸ Notably, the 2008 judgment¹²⁹ found that species extinction violates the right to a healthy environment, a decision which created protection for the highly endangered leatherback turtles from the annual harvest at Las Baulas National Park.¹³⁰ Some South American countries have gone much further to create constitutional protections extending to *rights of Mother Nature*.¹³¹

In the Asian context, in a clear example of an expanded greening approach, the right to life jurisprudence in India, Bangladesh, Sri Lanka, and Pakistan can be viewed as a precursor to the new *General Comment No. 36 on the Right to Life*.¹³² Taking a broader, environmental approach to the management of forestry and wildlife conservation, in the Godavarman series of cases, the Indian

¹²⁵ World Health Organization, *Our Planet, Our Health, Our Future: Human Health and the Rio Conventions: Biological Diversity, Climate Change and Desertification*, 2011, available at http://www.who.int/globalchange/publications/reports/health_riocoventions.pdf (last accessed on 3 August 2019), 20.

¹²⁶ *Ibid.*, 20.

¹²⁷ ‘The Philippines: Supreme Court Decision in *Minors Oposa v Secretary of the Department of the Environment and Natural Resources (DENR)*’, 33 *International Legal Materials* (1994), 173, 188.

¹²⁸ *Luis Arturo Morales Campos, Recurso de amparo*, Sala constitucional de la corte suprema de justicia Costa Rica, Decision 05839 - 2011, 10 May 2011.

¹²⁹ *Clara Emilia Padilla Gutiérrez, Recurso de amparo*, Sala constitucional de la corte suprema de justicia Costa Rica, Decision 18529 - 2008, 16 December 2008.

¹³⁰ See also the earlier judgment in *Caribbean Conservation Corporation and Others v. Costa Rica* (Green Turtles), *supra* note 65; Palmer & Robb, *supra* note 65, 186-196.

¹³¹ May and Daly, *supra* note 13, 257 for the constitutional provisions of Ecuador and Bolivia; Boyd, *supra* note 13, 70, 139-140.

¹³² *Supra* note 60, para. 62.

Supreme Court has adjudicated on issues of deforestation, mining,¹³³ logging,¹³⁴ impacts of clearing forest for a *recreational park* on a bird sanctuary,¹³⁵ and the reintroduction of endangered species,¹³⁶ all under the remit of the constitutional right to life.

Added to this practice is the fact that more than half of all States have adopted a specific constitutional right to a healthy environment,¹³⁷ and there is, therefore, a substantial evidential base of convergent practice on the inclusion of broader conservation issues within the environmental human rights law, as well as the universally-applicable greened rights to life, health, water, and food, for example.¹³⁸ Thus, while all such provisions are still rooted in human rights, the approach seen here appears to be a very far-reaching environmental protection goal. Such views suggest, therefore, that people are not impacted by environmental degradation only in the narrow sense of pollution of their land or their own immediate health concerns, but also by the broader impacts of a reduction in ecosystem function and genetic diversity. The adoption of the concept of *health and well-being* in the ILC Draft Principle 20(2), therefore, appears to be a rather narrow approach to take given the evidence presented here.

2. Summary: A Minimum Core of Environmental Human Rights

Drawing on the examination of State practice above, the minimum core obligations of environmental human rights could be conceived as follows:

1. Ensuring a baseline level of environmental health, so as to meet the needs of the population, such as adequate food and water sources, and a healthy life itself;

¹³³ *T.N. sS Thirumulpad v. Union of India & Ors* (2008) 2 SCC 222; *T.N. Godavarman Thirumulpad v. Union Of India & Ors* [2011] INSC 587.

¹³⁴ *T.N. Godavarman Thirumulpad v. Union of India* (1996) 9 SCC 982.

¹³⁵ *T.N. Godavarman Thirumulpad v. Union Of India & Ors* [2010] INSC 1058 para. 66.

¹³⁶ *T.N. Godavarman Thirumulpad v. Union Of India & Ors* [2012] INSC 114.

¹³⁷ J.H. Knox, *Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Compilation of Good Practices*, UN Doc A/HRC/28/61, 3 February 2015, para. 73.

¹³⁸ J.H. Knox, *Report of the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, UN Doc A/HRC/25/53, 30 December 2013, para. 28 for Knox's view that States should "[...] accept these statements as evidence of actual or emerging international law". The Report details his findings from the mapping exercise of treaty obligations and State practice.

2. Managing environmental risk, to ensure the collection and provision of environmental risk information; and
3. Conserving a healthy environment in the broader, ecological sense.

These three dimensions will help focus the analysis of potential human rights protection for the environment during occupation, while also adopting the tripartite obligations of respect, protection, and fulfilment. Naturally, there is a level of interpretation of obligations by the author in the analysis that follows, which draws on the environmental human rights analysis provided in the previous section.

The analysis will adopt the QAAA approach to the normative content of the rights, wherein the right is centred around the following four key elements: quality, availability, accessibility, and acceptability.¹³⁹ *Quality* will be taken to refer to the right to live in an environment that is not harmful to health and which affords the ability to live a life in dignity, protected from environmental hazards, whether man-made or natural, and which is culturally acceptable. *Availability* will be taken as requiring a safe and healthy environment free from dangerous contaminants and other hazards. *Accessibility* is usually measured in terms of physical and economic accessibility, access to information, and non-discrimination. Finally, *acceptability* will be taken to require that everyone is able to live in an environment that maintains a baseline level of environmental health and one that is safe from environmental hazards.

E. Applying the Environmental Human Rights to Occupation

I. Ensuring a Baseline Level of Environmental Health

Respect: The Occupier must refrain from the creation of significant pollution and environmental health risks in the occupied territory, thus ensuring an environment of a decent quality. Clearly, the security and stability of the occupation will need to be taken into account when fulfilling the right, but the starting point must be that the occupier is environmentally responsible in its approach, meaning that it must avoid the creation of additional environmental risks or sources of contamination in its activities and protect the population from the creation of such risks by third parties. At minimum, this obligation would

¹³⁹ See *General Comment No. 15*, *supra* note 33, para. 12; *General Comment No. 14*, *supra* note 79, para. 12.

entail taking *environmental considerations* into account in accordance with ILC Draft Principle 20(1), and would clearly be breached by deliberate actions by the occupier to move new polluting industries into the occupied territory¹⁴⁰ as well as the use of toxic materials or destruction of polluting facilities, even in retreat or as defensive mechanisms. Notable examples of the latter point include the systematic destruction of the Iraqi oil wells in occupied Kuwait in 1991,¹⁴¹ the creation of 110 kilometers of oil-filled trenches along its Saudi Arabian border,¹⁴² and the aerial spraying of herbicides to clear vegetation adjacent to the Israeli wall.¹⁴³

The occupier must respect existing access rights to the environment or natural resources, namely by refraining from moving people away from their traditional sources of access to the environment or environmental resources or restricting access to existing rights over resources.¹⁴⁴ Thus, the slaughter of livestock and destruction of agricultural areas and forests, the contamination of water resources and wells, and broader scorched earth policies would all clearly be violations.¹⁴⁵ The obligation of non-discrimination in environmental rights

¹⁴⁰ Al-Haq, *Environmental Injustice in Occupied Palestinian Territory: Problems and Prospects* (2015), 24 [Al-Haq report].

¹⁴¹ A total of 727 wells is given by M. AlSarawi, M.S. Massoud & S.A. Wahba, 'Physical Properties as Indicators of Oil Penetration in Soils Contaminated with Oil Lakes in the Greater Burgan Oil Fields, Kuwait' 102 *Water, Air and Soil Pollution* (1998), 1.

¹⁴² S.A.S. Omar, N.R. Bhat and A. Asem, 'Critical Assessment of the Environmental Consequences of the Invasion of Kuwait, the Gulf War and the Aftermath', in T.A. Kassim and D. Barceló (eds), *Environmental Consequences of War and Aftermath* (2009), 141, 153.

¹⁴³ CESCR, *Concluding Observations on the Fourth Periodic Report of Israel*, E/C.12/ISR/CO/4, 12 November 2019, para. 44.

¹⁴⁴ Note the war crime of pillage, Article 47, *1907 Hague Regulations*, *supra* note 15; Article 33, *1949 Geneva Convention IV*, *supra* note 19; *DRC v. Uganda*, *supra* note 1, para. 248; Dinstein, *supra* note 16, chapter 9. Property can only be seized or exploited in order to meet the occupier's own military or security needs, to defray the expenses involved in the occupation or to protect the interests and the well-being of the inhabitants. For the comprehensive analysis of the exploitation of environmental resources and minerals see Dam-de Jong, *supra* note 5.

¹⁴⁵ EECC, Western Front, *supra* note 22, para. 29; *Eritrea-Ethiopia Claims Commission – Partial Award: Central Front, Ethiopia's Claim 2*, 2004, para. 97 [EECC, Central Front]; Polish Forestry Case, UNWCC, *United Nations War Crimes Commission*, *supra* note 1, 496; *Al-Haq Report*, *supra* note 140, 37, 66-67; *Question of the Violation of Human Rights in the Occupied Arab Territories, Including Palestine, Report of the Special Rapporteur of the Commission on Human Rights, John Dugard, on the Situation of Human Rights in the Palestinian Territories Occupied [...] Since 1967*, E/CN.4/2006/29, 17 January 2006, para. 48; *UNEP, OPT*, *supra* note 1, 28.

policies and approaches links to the notion of environmental justice, preventing the occupier from creating additional environmental hazards in the occupied territory, for example by building new polluting industries, dumping hazardous waste or redirecting watercourses, all of which have occurred in the occupied Palestinian territories.¹⁴⁶

Protect: The occupier must secure enjoyment of the same rights to the population of the occupied territory by regulating the activities of third parties, including businesses, individuals, and armed groups. Securing the safety of the population from additional sources of contamination caused by third parties would require identifying contaminated and dangerous sites, undertaking environmental risk assessments, and preparing an action plan to deal with existing sources of threats, such as instituting cordons around damaged industrial facilities and securing toxic chemicals, heavy metals, and other hazardous substances as safety measures against looting. For example, in occupied Iraq, looting of chemical facilities was common and the spillage of toxic substances caused environmental health hazards for the local population,¹⁴⁷ with reports of a “[...] cloud of heavy, acrid smoke up to 2 km across, causing respiratory problems for local residents”.¹⁴⁸ At one site, looting led to the dumping of toxic chemicals and hazardous pesticides as well as the release of radioactive uranium oxide.¹⁴⁹ Such dangers will arguably add to a heightened sense of insecurity and may undermine the relative stability of the occupied territory, thus securing dangerous chemicals and facilities against looters could also fit within the principal duty of restoring security and normality under Article 43 of the 1907 Hague Regulations. The looting and uncontrolled exploitation of natural resources by individuals and companies may also cause hazardous pollution due to the use of unconventional or unregulated techniques, in addition to other rights and property violations.¹⁵⁰ The occupier, therefore, has a duty to undertake “[...] appropriate measures to prevent [...]” illegal exploitation of natural resources in the occupied territory.¹⁵¹

To ensure protection of the population against the threats caused by third parties, regulatory measures of industry, emergency planning, and oversight may

¹⁴⁶ *Al-Haq Report*, *supra* note 140, 24 and 67-68; UNEP, *OPT*, *ibid.*, 86-87.

¹⁴⁷ See looting from the Al Qa Qaa Complex which manufactured munitions in *UNEP, Environment in Iraq: UNEP Progress Report*, (2003) 7 [UNEP, *Environment in Iraq*]; looting from the Al Doura refinery in Khan Dhari, UNEP, *Hot Spots in Iraq*, *supra* note 1, 84-93.

¹⁴⁸ UNEP, *Hot Spots in Iraq*, *ibid.*, 84-93.

¹⁴⁹ Tuwaitha nuclear research facility, UNEP, *Hot Spots in Iraq*, *ibid.*, 36.

¹⁵⁰ *DRC v. Uganda*, *supra* note 1, para. 248.

¹⁵¹ *Ibid.*

be required, and will certainly become more important in protracted or large-scale occupations. Creating the Ministry of Environment in occupied Iraq in 2003, for example, the Coalition Provisional Authority (CPA) included as part of its functions, “[...] the protection of [...] residents of Iraq from environmental risks to human health and from [...] pollutants”¹⁵² and required the Ministry to “[...] develop policies, run environmental programs and promulgate and enforce standards[...]” of environmental protection.¹⁵³ To help combat the risks caused by looters, the CPA changed Iraqi law to impose greater prison sentences for attacks of looting and sabotage of electrical and oil infrastructure facilities, on the basis that these “[...] undermine efforts to improve the condition of the Iraqi [...]” people.¹⁵⁴ It is unclear if such *active interference* in the laws and institutions of the occupied territory was what was contemplated by the ILC when creating Draft Principle 20(2).

Fulfil: To work towards fulfilment of its obligations, the occupier should ensure repairs to damaged facilities and infrastructure. It must institute repairs, including emergency repairs, and decontamination of water resources and supplies (e.g. rivers, wells, and water desalination infrastructure) to ensure access to a minimum of safe drinking and bathing water and sanitation, combating the spread of contagious diseases and epidemics,¹⁵⁵ and institute clean-up and decontamination measures of agricultural areas, and maintenance of waste and other sources of contamination to ensure the survival needs of the population. For example, in Afghanistan, the water supplies were overwhelmed by wastewater infiltration and were heavily contaminated with *E. coli* and coliforms,¹⁵⁶ representing “[...] a severe threat to public health [...]”¹⁵⁷ In Iraq, large volumes of waste were created due to the scale of damaged buildings and military debris, including waste contaminated with depleted uranium shells and asbestos.¹⁵⁸ The CPA initiated (and funded) a waste management program, collecting over 1

¹⁵² Section 2(1), Coalition Provisional Authority Order Number 44, Ministry of Environment, CPA/ORD/11 Nov 2003/44, available at https://govinfo.library.unt.edu/cpa-iraq/regulations/20031126_CPAORD44.pdf (last accessed 2 August 2019) [CPA, Order Number 44].

¹⁵³ *Ibid.*, Section 2(2). Note the particular value for the Iraqi occupation authority (CPA) of SC Res.1483, UN Doc S/RES/1483 (2003), 22 May 2003.

¹⁵⁴ Preamble, Coalition Provisional Authority, Order No. 31: *Modifications of Penal Code and Criminal Proceedings Law*, CPA/ORD/10 Sep/31, 10 September 2003 [CPA, Order Number 31]; Sassòli, *supra* note 17, 678.

¹⁵⁵ Article 56, 1949 Geneva Convention IV, *supra* note 19.

¹⁵⁶ UNEP, *Afghanistan*, *supra* note 1, 34.

¹⁵⁷ *Ibid.*

¹⁵⁸ UNEP, *Environment in Iraq*, *supra* note 147, 16.

million cubic meters of waste from the streets of Baghdad.¹⁵⁹ Thus, using an environmental human rights approach, the role of the occupier is necessarily expanded to include greater environmental protections or remediation, which may serve as examples of the *more diversified measures* suggested for Draft Principle 20(2).

As occupation becomes more protracted, the occupier should be increasingly required to work towards the restoration and remediation of agricultural areas, which must also include the removal of munitions, including toxic and explosive remnants of war. The removal of dangerous munitions and remnants will also aid in ensuring security, as recognized by parties to the 1980 United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects,¹⁶⁰ since such explosive remnants will prohibit a return to normality by the civilian population, especially agricultural workers. The observance of environmental human rights could deliver similar duties of risk assessment and clean-up as contained in specialized de-mining obligations, particularly focusing on the more immediate threats to the right to life. Even in States experiencing ongoing conflict, human rights monitoring bodies have, for example, frequently commented on insufficient State action in regard to clearance of landmines or other explosive remnants of war (ERW).¹⁶¹ A similar clearance obligation, therefore, could extend to occupied territory in the fulfilment of human rights. However, the fulfilment of such obligations of remediation will clearly be dependent on the resources available to the occupier as well as within the occupied territory, including technical expertise and equipment.

II. Managing Environmental Risk

Respect: A basic obligation to provide environmental risk information and advice to the population is clearly relevant where the occupier creates new risks, but also in ensuring the welfare of the population more broadly as regards existing risks. The creation of new risks by the occupier should be minimized, hence the requirement to undertake a risk assessment of the potential environmental

¹⁵⁹ *Ibid.*

¹⁶⁰ 10 April 1981, 19 *International Legal Materials* (1980) 1523.

¹⁶¹ *Concluding observations of the Committee on Economic, Social and Cultural Rights: Bosnia and Herzegovina*, E/C.12/BIH/CO/1, 24 January 2006, paras. 9; Committee on the Rights of the Child, *Concluding Observations of the Committee on the Rights of the Child, Cambodia*, CRC/C/15/Add.128, 28 June 2000, para. 58.

pollution.¹⁶² As such, the toxic air pollution created in Iraq and Afghanistan by unsafe waste disposal, such as the use of so-called open-air burn pits to destroy ammunition and war materiel,¹⁶³ should have been preventable with basic environmental risk practices. Converting existing and readily adaptable risk assessment tools, such as the Rapid Environmental Impact Assessment methodology,¹⁶⁴ albeit designed to address the environmental impact of fast-onset natural disasters, could certainly be a valuable approach for occupying forces to take. Similar use could be made of existing chemical safety standards, such as those adopted under the European Union's REACH regulation, concerning the registration, evaluation, authorization, and restriction of chemicals.¹⁶⁵ Thus, procedural obligations of environmental risk assessments could provide a particularly valuable practical measure in assessing both existing and potential environmental health threats, such as from nuclear, oil, and chemical facilities.

Protect: The occupier must assess existing risks to the population by third parties, such as industry, and, as a minimum, create a risk management plan for all harmful substances in the occupied territory. When noxious sulphur dioxide gas from the Titan factory in Russian-occupied Crimea caused chemical burns and breathing problems, it apparently took two weeks for the authorities to release any information to the public and before the evacuation of children occurred.¹⁶⁶

¹⁶² *SERAC v. Nigeria*, *supra* note 91, para. 53; *Saramaka Case*, *supra* note 117, paras. 133-154; *Taskin v. Turkey*, *supra* note 100.

¹⁶³ See Department of Defense, Instruction, Number 4715.19, February 15, 2011, Incorporating Change 1, February 8, 2013, *Use of Open-Air Burn Pits in Contingency Operations*, para. 6 which reads "Generally, open-air burn pits should be a short-term solution during contingency operations where no other alternative is feasible." K. Donovan Kurera, 'Military Burn Pits in Iraq and Afghanistan: Considerations and Obstacles for Emerging Litigation' 28 *Pace Environmental Law Review* (2010-2011) 288.

¹⁶⁴ Note the rapid EIA procedure developed by the Joint UNEP/OCHA Environment Unit for fast-onset natural disasters, *The Flash Environmental Assessment Tool (FEAT): To Identify Acute Environmental Risks Immediately Following Disasters* (2009).

¹⁶⁵ Council Regulation 1907/2006, OJ 2006 L 396/1 (concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals).

¹⁶⁶ Statement of H.E. Mr. Petro Poroshenko, President, Ukraine to the UN General Assembly, *Climate Change, Economic Inequality, Systemic Bias among Issues Underlined by World Leaders as General Assembly Continues Debate*, GA/12064, 26 September 2018, available at <https://www.un.org/press/en/2018/ga12064.doc.htm> (last accessed 5 August 2019), "Russia's hostile attacks have also poisoned the Ukrainian soil and have caused an environmental disaster not only in the occupied Crimea, but in Donbas as well." 'Russia Evacuates Children as Crimea Town 'Coated in Rust'', BBC News, 6 September 2018, available at <https://www.bbc.co.uk/news/world-europe-45433463> (last accessed 3 August 2019).

Local residents complained that a “[...] greasy ‘rust’ had coated [...] apricot trees and vines[...]“, likening “[...] the rust to old engine oil [...]”.¹⁶⁷ Risk can also come from civilians themselves; for example, following the Soviet occupation of Afghanistan, uncontrolled cultivation and grazing, as well as hunting, water extraction, and deforestation caused large-scale damage to the environment, including the creation of risks to the survival needs of the population.¹⁶⁸

Furthermore, where the territory contains facilities and infrastructure that poses a high risk of failure, such as a dam or nuclear facility, the occupier will, by necessity, be subjected to higher levels of responsibility, including in ensuring the security and stability of the population. For example, in the non-government controlled territory of Donbas in eastern Ukraine, the discontinuation of coal mine maintenance has led to flooding of the mines, with the potential contamination of the water table with dangerous chemicals and heavy metals, including radiation from previous underground nuclear testing, as a consequence.¹⁶⁹ In the occupied Palestinian territories, there has been a lack of monitoring of a waste dump, with the consequence that toxic chemicals are finding their way into the underground water systems.¹⁷⁰ Potable water is especially important in water scarce regions, and ensuring the continued monitoring and maintenance of such facilities, therefore, will be paramount. Mosul dam, for example, is the largest dam in Iraq and requires constant injection of cement to fortify its foundations to avoid collapse. Rehabilitation work was temporarily halted in 2014, however, as the so-called Islamic State took control of the dam.¹⁷¹ While not a true case of *occupation*, this example undoubtedly evidences the particular problems and responsibilities for occupiers to institute and maintain repairs to facilities so as to avoid further risks to the population.

Similarly, linked to the looting of chemical facilities in Iraq, it transpired that residents were using empty chemical and radioactive drums for domestic water storage.¹⁷² Thus, surveying the occupied territory for harmful substances and securing these against damage, disposal, and looting will also help prevent

¹⁶⁷ BBC News, *ibid.*

¹⁶⁸ UNEP, *Afghanistan*, *supra* note 1, 14.

¹⁶⁹ OSCE, *Ukraine*, *supra* note 1.

¹⁷⁰ *Al-Haq Report*, *supra* note 140, 26.

¹⁷¹ T. von Lossow, ‘Water as Weapon: IS on the Euphrates and Tigris: The Systematic Instrumentalisation of Water Entails Conflicting IS Objectives’, (2016), available at https://www.swp-berlin.org/fileadmin/contents/products/comments/2016C03_lsw.pdf (last accessed 3 August 2019), 4.

¹⁷² See the sites at Al Qadissiya and Al Suwaira, *UNEP, Hot Spots in Iraq*, *supra* note 1, 62-83, and the Tuwaitha nuclear research facility, 36.

further risk of harm to the population and so, in turn, help protect against future health risks. Public education, warnings, and risk assessment actions would, therefore, be required to protect the population against such dangers and to help them avoid and reduce the resultant harm. Such information could, for example, advise the population, more specifically, on measures to take to avoid existing risks, when to seek medical advice, as well as indicate the location of suspected hazardous sites, such as from depleted uranium, cluster munitions, or even animal disease outbreaks. Risk management might also require the provision of information on how to deal with specific threats, such as oiled fishing resources or contaminated water sources. After all, what use is there in repairing water facilities without having previously warned users that the water was contaminated? Risk management would also necessitate specific instructions on how to avoid the dangers from explosive or toxic remnants of war (ERW/TRW), particularly relevant to the agricultural community.¹⁷³ As a practical measure, the occupier should ensure the use of recognized emblems or signage on buildings, which house dangerous chemicals, as well as cordons and regulations.

Fulfil: In order to fulfil the minimum obligations, the occupier should investigate significant harms caused to the environment in order to mitigate risk and, with sufficient resources, ensure actions are undertaken to remediate contaminated areas and secure dangerous facilities. Sufficient regulation of hazards and risks are paramount, gaining in importance as the level of risk increases. For example, the Ministry of Environment, created by the CPA in Iraq, was required to develop programs to cover areas such as the control of hazardous waste and to control toxic substances.¹⁷⁴

III. Conserving a Healthy Environment in the Broader, Ecological Sense

Respect: Recognizing that any limitation placed on the occupier to prevent pollution will aid the recovery and viability of the wider environment, the occupier must, therefore, refrain from undertaking activities that would risk causing significant pollution of, or damage to, the environment of the occupied territory,

¹⁷³ ERW is also subject to treaty obligations of surveying and clearance under Article 3 of *Protocol on Explosive Remnants of War to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (Protocol V)*, 2399 UNTS 126, 28 November 2003.

¹⁷⁴ Section 2(1), CPA, *Order Number 44*, *supra* note 152.

particularly conservation areas, ecological spaces, and environmentally-sensitive sites, including rivers, seas, forests, national parks, and reserves. Recognizing a broader, environmental conservation approach, during occupation such duties might also entail respecting existing conservation approaches and activities, and ensuring that conservation actors can continue their work, such as in the Virunga National Forest in the Democratic Republic of Congo.¹⁷⁵ Examples of such breaches would arguably include the suspension of the protected areas project in the occupied Palestinian territories,¹⁷⁶ the fragmentation of nature reserves by the construction of the Israeli wall,¹⁷⁷ and deforestation caused to make way for Israeli settlements.¹⁷⁸ Respect for the broader environment should also, undoubtedly, include the duty to refrain from the deliberate destruction of the environment during occupation, such as occurred in Russian-occupied areas of Georgia in 2008, where forests were deliberately destroyed by fire with consequent, large-scale impacts on wildlife,¹⁷⁹ and in occupied Azerbaijan where forests and national parks were destroyed.¹⁸⁰

For an occupier undertaking a lawful, usufructory exploitation of natural resources, such as a publicly-owned forest or agricultural areas,¹⁸¹ a focus on environmental human rights could create enhanced protection by imposing duties on the occupier as to *how* it exploits such resources, as well as to what extent.¹⁸² Arguably, the occupier should be required to undertake an environmental risk assessment to inform exploitation, by either the occupier or the occupied population, and possibly a sustainable exploitation plan.

Protect: Looting, as well as the illegal exploitation and destruction of forests, agricultural areas and valuable natural resources, such as diamonds and gold, have broader impacts on ecosystem function, biodiversity, and long-term conservation efforts. For example the unsustainable harvesting of sandalwood and the destruction of forest cover in occupied Timor-Leste caused degradation

¹⁷⁵ Sjöstedt, *supra* note 44.

¹⁷⁶ UNEP, *OPT*, *supra* note 1, 96.

¹⁷⁷ *Ibid.*, 98.

¹⁷⁸ *Ibid.*, 100.

¹⁷⁹ International Law and Policy Institute, *Protection of the Natural Environment in Armed Conflict: An Empirical Study* (2014), 28-30.

¹⁸⁰ Jha, *supra* note 142, 66-67.

¹⁸¹ Article 55, *1907 Hague Regulations*, *supra* note 15.

¹⁸² In the case law of the Inter-American and African systems (albeit not related to armed conflict or occupation) such a dimension is evident in the substantive environmental right to a healthy environment, see *Yakye Axa Case*, *supra* note 89, IACtHR; *Saramaka Case*, *supra* note 117.

of soil quality, leading to fertility declines of tree species and soil instability, potentially then leading to greater risk of landslides and soil compaction leading to loss of water retention capacity.¹⁸³ Similarly, the destruction of irrigation channels,¹⁸⁴ wide-scale uprooting of trees (such as olive trees in Palestine),¹⁸⁵ polluting wells, and redirecting watercourses all have broader conservation impacts and should be prohibited. Consequently, the occupier must take measures to protect against the broader impacts of environmental damage caused by third party actions, including requiring sustainable development of natural resources subject to existing licenses.

In relation to conservation areas, ecological spaces and environmentally sensitive sites, these must be protected, for example, by adequate signage and monitoring, against third party damage, such as looting or pollution of resources and unlawful exploitation. Creating a risk assessment system will be invaluable for the protection of conservation areas, ecological spaces, and environmentally sensitive sites.

Fulfil: Particularly as occupations become protracted, the occupier should ensure the sustainable utilization and management of all natural resources for the benefit of the local population,¹⁸⁶ while recognizing the limits of the concept of usufruct. Benvenisti suggests an obligation of the management of water resources, such as “[...] taking active measures to prevent pollution of the rivers.”¹⁸⁷ In locating the obligation, Benvenisti focuses on the human survival aspect of ensuring the supply of clean drinking water.¹⁸⁸ A broader, resource

¹⁸³ *The Final Report of the Timor-Leste Commission for Reception, Truth and Reconciliation* (January 2006), Part 7.9, Economic and Social Rights, paras. 47, 49.

¹⁸⁴ Jha, *supra* note 142, 66 for Azerbaijan.

¹⁸⁵ UNEP, *OPT*, *supra* note 1, 102.

¹⁸⁶ A. Cassese, ‘Powers and Duties of an Occupier in Relation to Land and Natural Resources’, in E. Playfair (ed), *International Law and the Administration of Occupied Territories: Two Decades of Israeli Occupation of the West Bank and Gaza Strip* (1992), 419, 422; Dinstein, *supra* note 16. Note the Security Council limits on oil exploitation in occupied Iraq, namely: pending the creation of “[...] an internationally recognized, representative government of Iraq [...]”, SC Res. 1483, UN Doc S/RES/1483, May 22, 2003, para. 20.

¹⁸⁷ Benvenisti, *Occupation*, *supra* note 16, 265; E. Benvenisti, ‘Water Conflicts During the Occupation of Iraq’ 97 *American Journal of International Law* (2003) 4, 860 [Benvenisti, Water Conflicts]. See also the “[...] need to consider measures for the impartial protection [...]” of water resources within the Palestinian Occupied Territories, SC Res. 465, UN Doc S/RES/465 (1980), 1 March 1980, Preamble.

¹⁸⁸ Benvenisti, *Occupation*, *ibid.*, 265.

management requirement could also be drawn from environmental human rights, and, as this section outlines, could be expanded further.

The occupier should create a plan to work towards instituting measures of clean-up and remediation in conservation areas, ecological spaces and environmentally sensitive sites. Again, such actions will become more important as the period of occupation lengthens. An example of remediation action is provided by the restoration of the Ramsar-listed wetlands of the Mesopotamian Marshes in southern Iraq.¹⁸⁹ Reliance upon environmental human rights could, therefore, provide greater environmental protection and something akin to an obligation of good environmental governance during occupation.¹⁹⁰ Creating or designating new protected environmental areas would, though, certainly require the participation and approval of the local population. For example, the Ministry of the Environment, created by the CPA in Iraq, was required to develop programs to cover water and air quality, and pollution, as well as natural resource protection, land management, and biodiversity.¹⁹¹ The Ministry was created with a broad mandate of responsibility for “[...] the protection and conservation of Iraq’s environment [...]”, and was required to ensure that environmental protection formed an “integral factor” when developing other related policies, such as those concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and trade.¹⁹²

F. Conclusions

This contribution set out to analyze whether, by using environmental human rights, we could provide more depth to the guidance offered to States as regards their obligations during occupation. This contribution argues that, using evidence from State practice, international courts, and human rights jurisprudence and machinery, it is possible to identify some minimum core obligations of environmental human rights that would remain applicable in situations of occupation. Shifting the focus, from seeing environmental protection solely through the prism of other rights, such as the right to health

¹⁸⁹ Benvenisti, *Water Conflicts*, *supra* note 187; C.J. Richardson & N.A. Hussain, ‘Restoring the Garden of Eden: An Ecological Assessment of the Marshes of Iraq’, 56 *BioScience* (2006) 6, 477.

¹⁹⁰ Justice Shilo referred to *good governance* as a duty of the occupier in *Tabib et al v. Minister of Defense & Military Governor of Tulkarem*, Judgment of 3 December 1981, HCJ 202/81, para. 629.

¹⁹¹ Section 2(1), CPA, *Order Number 44*, *supra* note 152.

¹⁹² Section 2(1), CPA, *ibid.*

or water, this contribution has helped to capture the broader body of obligations encapsulated in *environmental human rights*. Arguably, therefore, the resulting guidance drawn from the environmental human rights analysis presented in the current contribution should contain fewer gaps than would an analysis which focused on each individual human right in turn. The guidance, presented above, is based on the notion of minimum core obligations as conceived by this author's analysis of the wealth of environmental human rights practice to date. Clearly, these findings are open to debate, welcomed by the author.

More broadly, the analysis does not start merely from the perspective of the three approaches traditionally used in environmental human rights law, namely the greening of rights, procedural rights, and the right to environment. Instead, the analysis sought to move past those *baskets* of obligations to distil from practice on a broader level. The three new approaches outlined in the contribution refer instead to a baseline level of environmental health, risk management, and conservation. It is submitted that, using these three approaches as the bases of the obligations, the formulation of concrete guidance for States is helped, as it presented a simplified set of core obligations focused on the most important but also the best evidenced aspects of the rights. Managing risk, particularly significant risk, for example, comes across much clearer in all human rights jurisprudence than the arguably more mechanical application of procedural rights. Furthermore, the guidance suggested recognizes that the scope of obligations may vary with the stability of the situation of occupation, the length of the occupation, as well as the conservationist principle within occupation law, by requiring minimum regulatory change.

Returning to the ILC Draft Principles on occupation, there is clearly much to applaud. The definitive statement regarding the protection of the environment in the Draft Principles concerning occupation is a very welcome development, and especially so since the law of occupation contains no explicit reference to the *environment*. The dual recognition that States must undertake *proactive measures* to address immediate environmental problems and possibly *active interference* in the laws and institutions of the occupied State adds strength to the Draft Principles. Arguably, the current analysis adds to that guidance with greater depth to those obligations and additional concrete examples. The resulting guidance, therefore, it is submitted, presents occupiers with a clearer, more detailed set of obligations, which should be both acceptable to States as well as achievable in practice and which appear to enhance the current level of protection of the environment in situations of occupation.