

Erik Koppe, *The Use of Nuclear Weapons and the Protection of the Environment during International Armed Conflict* (Volume 18, Hart Publishing Studies in International Law Series, 2008, ISBN 9781841137452 x+447pages)

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The 'Doomsday Clock' — a depiction of a clock face, minutes away from midnight — was devised by the Bulletin of Atomic Scientists in 1947, as a way of symbolically demonstrating to the world how close humanity was to its destruction as a result of nuclear warfare. Midnight was doomsday; and over the decades, the minute hand has moved according to political and technological changes, indicating how near we have come to our own annihilation. The furthest the minute hand has ever been was seventeen minutes to midnight — the end of the Cold War and the reunification of Germany in the early nineties. However, in 2007, the minute hand was moved from seven minutes to midnight to five minutes to midnight — the closest the clock has been to midnight since the height of the US-Soviet brinksmanship that characterised the early 1980s. This time though, our imminent demise is attributable to more than just nuclear war:

Climate change... presents a dire challenge to humanity. Damage to ecosystems is already taking place; flooding, destructive storms, increased drought, and polar ice melt are causing loss of life and property.¹

The inclusion of climate change on the Bulletin's radar reflects growing international concern about what many consider to be a clear threat to international peace and security — the deterioration of the natural environment due to global warming and climate change. The ICRC, for one, has for at least the past decade been highlighting the threat to human security posed by conflicts over dwindling natural resources.²

These dual threats — nuclear warfare and environmental damage — are the focus of Erik Koppe's book. Koppe takes, as his starting point, a paragraph from the ICJ's *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*,³ where the Court stated that:

...while the existing international law relating to the protection and safeguarding of the environment does not specifically prohibit the use of nuclear weapons it

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1 Bulletin of Atomic Scientists, *Doomsday Clock*, <<http://www.thebulletin.org/content/doomsday-clock/timeline>> accessed 31 December 2008.

2 The Magazine of the International Red Cross and Red Crescent Movement, *Climate Change Challenge* (2007) <http://www.redcross.int/EN/mag/magazine2007_1/4-9.html> accessed 31 December 2008.

3 *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 1996 at 226 (hereafter '*Nuclear Weapons Advisory Opinion*').

indicates important environmental factors that are properly to be taken into account in the context of the implementation of the principles and rules of the law applicable in armed conflict.⁴

Specifically, the essential thesis of the text is whether, in the absence of more definitive prohibitions, it can be argued that the international rules relating to the protection of the environment could serve to regulate the use of nuclear weapons, in both times of war and peace. The text draws attention to the ‘rapidly emerging appreciation of, and the worldwide realisation of the intrinsic value of the natural environment as an indispensable asset for the continuation of life, including human life’,⁵ and argues that, given the already fragile state of the natural environment, the protection of that environment from further damage as a result of nuclear warfare is paramount. Therefore, this situation ‘warrants a thorough and extensive study on the question of the [illegality of the employment of nuclear weapons from the point of view of international environment protection law].’⁶

Koppe does indeed produce a thorough and extensive study. The text is divided into two parts. The first provides a useful and lucid history of the development of nuclear weapons, the different types of nuclear weapons, and their effects on the natural environment. This section helps put the practical elements of the technology into perspective for the non-scientifically minded, and provides an accessible overview of the science behind nuclear weaponry.

The second part — the bulk of the book — analyses the relevant law. Sub-divided into four chapters, Koppe looks at the applicable international law in three different situations — when a State has recourse to use force (*jus ad bellum*), during armed conflict (*jus in bello*), and during peacetime (*jus pacis*). In constructing his framework of environmental protections, Koppe analyses treaty law, customary international law, the work of the UN, and the inter-relationship of the laws of international humanitarian law, human rights law, and international environmental law. The final chapter comes to the conclusion that despite the seeming paucity of international rules regulating the use of nuclear weapons, in fact rules regarding the protection of the environment provide a considerable network of protections and prohibitions that would operate to prevent or punish States who might have recourse to nuclear weaponry in their international dealings. Koppe acknowledges that the laws are imperfect, and, as with all laws, the strength lies in their implementation, not merely their existence. However, Koppe rightly notes that humanity can ill-afford to be reckless with the natural environment, as it will likely bring repercussions from which the global eco-system is unable to recover. Koppe’s book presents a well-researched and comprehensive coverage of law and policy, making a cogent case for a more holistic approach to protecting the environment, and thus ourselves, from the ‘most destructive weapon ever invented’.⁷

4 *Nuclear Weapons Advisory Opinion* at [33].

5 Erik Koppe, *The Use of Nuclear Weapons and the Protection of the Environment during International Armed Conflict* (2008) at 6.

6 *Ibid.*

7 *Id.* at 385.