

Avril McDonald, Jann K. Kleffner and Brigit C. A. Toebes (eds), *Depleted Uranium Weapons and International Law: A Precautionary Approach*, (Asser Press 26th June 2008) 340 pp. £55.00/US\$100.00 (hardback), ISBN 9789067042659.

The importance of this book is that it is the first to offer a comprehensive and in-depth yet provisional legal analysis of depleted uranium (DU) weaponry and its use in armed conflict.

Dan Fahey fuels this analysis by discussing the properties of DU, charting the extent of its use in modern armed conflicts and offering an accessible, critical and cautious commentary of a range of reports and studies pertaining to the impact that DU weaponry has on human health and the environment.

Guido den Dekker and Jann Kleffner furnish the reader with valuable insights into arms control treaties as well as the feasibility and desirability of a Depleted Uranium Weapons Convention. Their legal assessment of DU weapons under international treaties and customary law on arms control propels the discussion into the alternative means of international legal regulation.

Burrus M. Carnahan's account of the concept of military necessity and the military utility of DU weaponry paves the way for Marten Zwanenburg, Jann Kleffner and Théo Boutruche's assessment of the protection offered to combatants and civilians under *jus in bello*. These contributors critically explore the prohibition of weapons of a nature to cause superfluous injury or unnecessary suffering and the principles of distinction, proportionality and precaution. It is argued that *jus in bello* does not prohibit DU weaponry *per se*, but the lawfulness of its use is to be determined on a case-by-case basis by balancing military considerations against the evidenced humanitarian effects. Their analyses offer a refreshing and much needed application and clarification of these norms. Erik Koppe complements this discussion by examining the level of protection afforded to the environment under *jus in bello* and international customary law. Considering matters such as the threshold at which environmental harm is set and the applicability of these norms, it is questioned whether the use of DU weaponry can infringe these environmental norms.

Brigit Toebes argues that individuals may be able to invoke a range of human rights. However, the question of whether the effects of DU weaponry infringe user states' human rights obligations, such as to not unlawfully deprive someone of their life, is one which is primarily to be determined by applying the *lex specialis* provisions of *jus in bello* and by examining the extra-territorial effect of the relevant human rights instruments. Toebes also considers whether the long-term health effects of exposure to DU during and subsequent to armed hostilities could violate the right to health. Conversely, a state may claim that another state has violated its international obligations in using DU weaponry. Tobias Gries and Manfred Mohr note that the principle of state responsibility comes with a number of doctrinal and practical limitations such as factually proving that a wrongful act has taken place and then attributing it to a state or an international governmental organization.

Avril McDonald concludes with an overarching analysis of the legality of DU weaponry and its use in armed conflict together with a comprehensive discussion of a range of potential remedies available to victims where breaches of international law have occurred. In the absence of a scientific consensus regarding the effects of DU weaponry, and perhaps the political will to investigate this sensitive issue further, there is currently a legal impasse. In response to this, McDonald elucidates a tenable way forward in the form of a precautionary approach. 'Depleted Uranium Weapons

and International Law' is a penetrating, illuminating and enriching book, the theoretical and practical import of which deserves the attention of those working in political, military, scientific and legal circles.

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