

International Law and
Depleted Uranium
Weapons:
A Precautionary Approach

International Law and Depleted Uranium Weapons: A Precautionary Approach, edited by Avril McDonald, Jann K. Kleffner and Brigit Toebe (The Hague, TMC Asser Press 2008)

1. The Lawfulness of DU Weapons

The applicable legal framework:

Primary Rules

- Arms control/disarmament law
- The law of armed conflict/international humanitarian law
- Human rights law

Secondary Rules

- The law of state responsibility
- The law of personal/individual remedies

The applicability of the secondary rules depends on a breach of the primary rules

Law of Arms Control

- Addresses two groups of weapons:
 - Weapons of mass destruction (chemical, biological and nuclear)
 - Conventional weapons (all other anti-materiel and anti-personnel weapons)
- Exists in treaty and customary (unwritten) form
- Few arms control treaties

No Discrete Ban on DU by Treaty

- Depleted uranium is not the subject of a specific treaty banning it or restricting its use
- Chemical and biological weapons are both prohibited by treaty but DU does not have the properties of such weapons as described in those treaties

DU is Not a Biological or Toxin Weapon

- DU weapons do not fit the definition of biological weapons as laid down in the BWC, since this Convention is concerned with 'microbial or other biological agents or toxins'

- Although the treaty does not define 'agents', this term usually refers to living organisms or infective material (or their synthetic equivalent) obtained from them, that multiply inside the person, animal or plant attacked
- Toxins – not defined by the BWC but covered by it when used for hostile purposes – whether of a microbial, animal or vegetable nature, including their synthetically produced analogues, are substances that act like chemical agents but ordinarily are produced by biological or microbial processes.

DU is Not a Chemical Weapon

- DU is not a chemical weapon within the meaning of the Chemical Weapons Convention
- DU weapons are not munitions or devices specifically designed to cause death or other harm through the toxic properties of toxic chemicals and their precursors', as required by the CWC

- As for the 1925 Gas Protocol, DU would not be covered by its ban on asphyxiating, poisonous or other gases, and all analogous liquids, materials and devices, as it is not a weapon that it designed with the intention of poisoning as a means of combat: its poisonous effects are a side-effect of its military application

DU is Not a Nuclear Weapon

- Nuclear weapons are not addressed by a treaty and in its Advisory Opinion on the Threat or Use of Nuclear Weapons the International Court of Justice could not exclude cases where the use of nuclear weapons might be lawful, although their use would be subject to the law of armed conflict (LOAC)

- Given that there is no prohibition of nuclear weapons per se, it would be particularly difficult to consider DU as a nuclear weapon on account of its radioactive properties

What is a Nuclear Weapon?

- Protocol III to the Modified Brussels Treaty of 1954 defines a nuclear weapon as a weapon which, by explosion or other uncontrolled nuclear transformation of nuclear fuel or by radioactivity of nuclear fuel or radioactive isotopes, capable of mass destruction, mass injury or mass poisoning

- Art. I(c) of the Treaty on the Southeast Asia Nuclear Weapon Free Zone defines a nuclear weapon as any explosive device capable of releasing nuclear energy in an uncontrolled manner, not including the means, transport or delivery of such device if separable from and not an indivisible part thereof

- DU weapons are not used with the purpose of killing by radiation, and are lower in the violence spectrum than a nuclear weapon
- They do not produce radiation as a result of an explosion but as a result of the DU-tipped sabot penetrating a hard object

DU is a Conventional Weapon

But it is not addressed by any of the existing treaties regulating particular Conventional weapons

DU is not an Incendiary Weapon

DU cannot be described as an incendiary weapon within the meaning of Protocol III to the 1981 Certain Conventional Weapons Convention

- Article 1(1)(b)(ii) of Protocol III states that incendiary weapons do not include munitions designed to combine penetration, blast or fragmentation effects with an additional incendiary effect, such as armour-piercing projectiles, fragmentation shells, explosive bombs and similar combined-effects munitions in which the incendiary effect is not specifically designed to cause burn injuries to persons, but to be used against military objectives, such as armoured vehicles, aircraft and installations or facilities.

- International regulations concerning the transfer of and trade in fissile material, such as the International Atomic Energy Agency's safeguards system, apply to DU
- Although the transfer of and trade in DU weapons are not prohibited by international law, they are subject to export controls and licenses

- But these types of restrictions aim at controlling the trade in and transfer of DU for security reasons (non-proliferation), considering that it is a dual-use material which could be converted into a nuclear weapon, rather than at restricting the use of the weapon during a situation of armed conflict

DU is not Addressed by Arms Control Law

- This means that there is no international prohibition on its use per se
- However, when used during an armed conflict, its use, like that of any weapon, is subject to compliance with the law of armed conflict

The Law of Armed Conflict

- Relevant rules:
 - Military necessity
 - The prohibition on causing superfluous and unnecessary suffering to combatants
 - The principle of distinction
 - The principle of precaution
 - The prohibition on the use of poison or poisoned weapons
 - The law protecting the natural environment during armed conflict

Military necessity

- User states claims that DU use is in conformity with the law of armed conflict and is justified legally on the grounds of military necessity
- Its superior penetrating capability (to the alternatives, especially tungsten) gives user states a military advantage which they need

- Military necessity is not a fixed quantity; it changes according to circumstances
- It only applies to measures that are otherwise lawful according to the laws of war
- It cannot justify the use of weapons that are prohibited by treaty
- It should be applied in each circumstance of a weapon's use
- It applies to measures helping friendly forces as well as those directed against the enemy

- The necessity for DU's use at the time it was legally approved was the military advantage it would give the USA against Soviet tanks on the plains of Europe
- It was not envisioned that DU would be used in large quantities in urban areas such as downtown Baghdad, where levels of radiation 1,400 times higher than normal were detected in public places

- While military necessity provides the justification for DU use, it can equally be seen exerting a possible restraining effect
- The military necessity of the use of DU has in general changed since DU was legally approved by the US Army and Air Force
- The alternative tungsten is now 'almost as good'
- Much more is known about the harmful effects of DU

- There is no military necessity for its use against personnel where an alternative is available, e.g., ground-launched rather than aerial weapons fired against targets of opportunity
- The necessity of DU's use might be different depending on the circumstances of its use: it might be necessary to use it to engage superior armour in an isolated area; but the necessity of its use against a soft target in a town centre is harder to justify, except when striking targets of opportunity
- The advantage of using DU in the particular circumstances must be direct, concrete and real

Superfluous injury and unnecessary suffering

- Applies only *vis-à-vis* (enemy) combatants (not friendly forces or civilians)
- Cannot impose a ban on all circumstances of a weapon's use except in cases where the weapon has been designed to cause superfluous injury or unnecessary suffering

- The principle prohibits the use of weapons of a nature to cause (that have the effect of causing) superfluous injury or unnecessary suffering to enemy combatants (so it is not applicable to troops injured through DU exposure in friendly fire incidents)
- It is codified in the St. Petersburg Declaration, the Hague Regulations and Additional Protocol I to the Geneva Convention (Art. 35(2))

- What is considered as superfluous injury and unnecessary suffering is both fixed and relative
- There is a minimum threshold of injury or suffering that could potentially be considered as superfluous and unnecessary: it is force used that exceeds the threshold of what is necessary to disable the greatest number of men (and materiel). For example, if a weapon needlessly aggravates the suffering of men who will anyway be killed or renders their death inevitable where it is not necessary to kill them, it would reach this threshold

- And even then, whether this injury or suffering is considered as superfluous injury or unnecessary suffering will depend on the military necessity of the weapon's use
- If it provided a military advantage not otherwise available the suffering and injury would be justified because it would be necessary and not superfluous

- It is debatable whether it applies only to anti-personnel weapons or also anti-materiel weapons
- DU is mainly used as an anti-materiel weapon
- Arguably, it can be and is applied to both types of weapons
- Difficult to distinguish between the anti-personnel and anti-materiel effects of the use of an anti-materiel weapon against materiel

- If the principle is applied to DU weapons used against both materiel and personnel, the questions are:
 - Does the suffering and injury caused to combatants mean the required threshold?
 - In that case, is it necessary and not superfluous?

- Does the suffering and injury reach the necessary threshold? Arguably yes
- If so, against personnel directly, DU use is arguably not necessary because there are viable alternatives
- DU use against materiel could be justified if there was no alternative providing an equal or greater military advantage in the circumstances of its use

Prohibition on poison

- No definition of poison in LOAC but some argue that the ban covers only weapons that are used with the intention of poisoning -- ie., designed to kill by poisoning (premediated approach)
- The ICJ defined it as a weapon whose prime or even exclusive effect is to poison or asphyxiate (effects-based approach)
- Even if an effects-based rather than a premeditation approach is applied, it is very difficult to consider DU as a poison weapon

- Whichever approach is adopted, it does not seem that the use of DU weapons violates the prohibition on poison per se
- They are not designed to cause death or damage to combatants by means of poisoning them
- And current level of scientific knowledge is such that it is not possible to show that the toxic properties of DU residues cause death or serious damage to health in the ordinary course of events -- a generally agreed requirement for weapon to be considered as poisonous (ICC Elements of crimes)

Distinction

- As far as the principle of distinction/prohibition against indiscriminate attacks is concerned, DU use could potentially violate only one provision of Article 51 of Additional Protocol I, namely, paragraph 4(c), which prohibits using methods or means of combat which cannot be limited as required by the Protocol

- As for the other provisions, either the use of DU weaponry does not raise specific issues in relation to them, or it could not be considered to violate them

- DU weapons are not inherently indiscriminate, and therefore 'whether and to what extent the use of DU ammunition violates the prohibition of indiscriminate attacks under Article 51(4)(c) and the corresponding rule of customary international humanitarian law will have to be determined on a case-by-case basis'

- The fact that the effects of DU may be removed in time and space from its initial use may make it difficult to prove that they were caused by it; however, if such a link could be established, effects which are remote in time and space are not excluded by Article 51(4)(c) Additional Protocol I

- The use of DU could also potentially violate the principle of proportionality in particular cases, where the incidental loss of civilian life, injury to civilians or damage to civilian property is excessive in relation to the military advantage anticipated from its use. This assessment will have to be made on a case-by-case basis
- The use of DU in urban areas could have more adverse effects than its use in an isolated rural area

- DU use could only be considered to violate the prohibition to render useless objects indispensable to the survival of the civilian population if carried out with that purpose

Precaution

- During all military operations, parties to armed conflicts are required to ensure that precautions are taken
 - In planning and conducting military operations (Art. 57 Additional Protocol I)
 - In the conduct of military operations to protect civilians against the effects of hostilities (Art. 58 Additional Protocol I)

- Of particular relevance in the context of DU is Article 57(2)(a)(ii)
- It requires military commanders to take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event minimizing, incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof which would be excessive in relation to the concrete and direct military advantage anticipated
- Along with Article 51(4)(c), Additional Protocol I, it could provide a legal basis for restricting targeting using DU

- Art. 58 (c) Additional Protocol I enjoins parties to an armed conflict, to the extent feasible, to take the necessary precautions to protect the civilian population, individual civilians and civilian objects under their control against the dangers resulting from military operations
- It could provide a legal basis for requiring states to take certain measures aimed remediation in the aftermath of the user of DU to reduce the dangers to civilians

Protection of the environment

- Damage to the natural environment through the use of DU weaponry is foreseeable to a certain extent
- However, it is unlikely that such damage will pass the high threshold – widespread, long-term *and* severe – of Articles 35(3) and 55 of Additional Protocol I
- It is unlikely that the use of depleted uranium would violate the customary prohibition to cause wanton or excessive collateral damage to the environment

Conclusions on the law

- DU use could potentially violate only
(1) the prohibition in Article 51(4)(c) Additional Protocol I on using weapons with effects which cannot be limited, and which thus may in some cases of their use potentially violate the prohibition against indiscriminate attacks and
(2) and the prohibition of causing superfluous injury and unnecessary suffering to combatants
- *Vis-à-vis* both rules, any potential violation will be case specific

2. The Way Forward

- Those responsible for applying the law of armed conflict -- states, armed groups and individuals -- need only take into account the foreseeable effects of the weapons they use
- These effects do not need to be immediate -- they can be temporally removed from the conflict -- and arguably include both secondary unintended as well as primary intended effects
- Arguably all effects should be considered in applying the law where they can be expected

- Parties to armed conflicts cannot be expected to know the unknowable, but they should exercise good judgement in ensuring that civilians are protected from the worst effects of the use of weapons, bearing in mind that the right of parties to choose their methods and means of warfare is not unlimited

- There is cause for concern regarding DU's potential to cause harm
- However, the full picture about DU's effects has yet to emerge
- In the absence of a ban on DU being adopted, what is needed is an approach that will minimise foreseeable damage and limit any possible ill effects which are not yet foreseeable but possible

A Precautionary Approach

- As applied to DU weapons, a precautionary approach necessarily implies precaution in their use during the conduct of hostilities but it is much broader and emphasises precaution, and therefore risk minimisation, at various stages in the life of the weapon, as well as prescribing action for dealing with the aftermath of their use and reducing their proliferation

The precautionary approach has four facets:

1. Legal reviews of DU munitions by states
2. Precaution in targeting: restricting the deployment of DU weapons in civilian areas
3. Precautions in the aftermath of DU use:
 - Remedial and risk reduction measures
 - Testing of exposed individuals and populations and the conduct of further medical and scientific research by military and civilian bodies
4. The voluntary adherence by user states to a moratorium on the use of DU munitions until possible negative impacts can be dispelled or proven

The legal basis of the precautionary approach

- Not the precautionary principle in environmental law
- Not, as a general legal basis for all measures, the principle of precaution in LOAC

- Different measures have different legal bases -- some based in LOAC (principles of distinction, precaution, prohibition of causing superfluous injury and unnecessary suffering military necessity), some in human rights law (right to health, right to information, right to life, right to food, right to an environment, etc.) -- and some are just based on common sense in order to minimise risk for both user states and persons affected by the use of DU