

DEPLETED URANIUM WEAPONS: DEPLETED URANIUM (DU) EXPOSURE IS A POTENTIAL HEALTH RISK FOR CIVILIANS

PP11: *“Taking into consideration the potential harmful effects of the use of armaments and ammunitions containing depleted uranium on human health and the environment, and the ongoing concerns of affected States and communities, health experts and civil society about such effects.” A/C.1/71/L.63 Effects of the use of armaments and ammunitions containing depleted uranium*

BACKGROUND

A small number of states at First Committee have claimed that language in the draft resolution L.63¹, which relates to the potential health effects of DU weapons, means they are unable to vote in favour of the text. This briefing considers those potential risks and how they are interpreted by states and international organisations.

IS DU HAZARDOUS?

DU is a radioactive and chemically toxic heavy metal. The radioactivity of DU metal is such that it is classified as intermediate level radioactive waste². DU contaminated soils and materials are categorised as low-level radioactive waste. DU production, use and disposal are regulated in peacetime because of these properties and the risks it poses to human health and the environment.

Laboratory research undertaken in response to concerns over DU has aided our understanding of how DU can negatively interact with cells and tissues. Studies are increasingly demonstrating that DU is genotoxic – it can damage DNA – and that it is a carcinogen³.

The WHO’s International Agency for Research on Cancer (IARC) has developed a framework to assess whether substances can cause cancer. Under the IARC framework DU inside the body is classified as carcinogenic in humans because of the type of radiation it emits. This is confirmed by the many studies on DU’s genotoxic effects.

IS CONTAMINATION FROM THE USE OF DU WEAPONS HAZARDOUS?

Post-conflict field studies by international organisations have been undertaken but have often been limited by access to affected sites, the refusal by states to share targeting data and the length of time that has passed between the weapons’ use and the assessment⁴. Remedial measures to minimise the risks to civilians from the small proportion of sites that have been fully assessed have been recommended in almost all cases.

The reason for these recommendations has been that DU exposure is recognised as being potentially hazardous to human health.

DO THE MILITARY RECOGNISE THE POTENTIAL RISKS FROM DU WEAPONS?

The militaries that use DU, and those of their allies, recognise that DU exposure is potentially harmful for their personnel. Since the early 1990s guidelines have been developed to ensure that personnel minimise exposure – for example by avoiding sites targeted with DU weapons – or through the use of specialised personnel and protective equipment⁵. Many countries now provide post-deployment DU testing for their troops to identify those that may have been exposed. Such testing is not available for civilians.

ARE CIVILIANS BEING HARMED BY DU WEAPONS?

Following the use of DU weapons, DU contamination can find its way into the human body by inhalation, ingestion, or through wounds⁶. The radioactive and chemically toxic nature of DU weapons has meant that their use has been followed by claims that they are responsible for increased rates of cancer and birth defects in the areas where they have been used.

However, to date there have been no large-scale studies on the potential effects of DU weapons on civilians. Large-scale epidemiological studies on the health impact of environmental risk factors are challenging in peacetime and it is incredibly difficult to design and undertake them in insecure post-conflict settings. Studies have been further hampered by the reluctance of DU users to release targeting data.

Without more information on how much DU might get into the bodies of civilians after DU weapons are used, it is very difficult to accurately quantify their risk of cancer or other health effects.

Most civilians in a country contaminated by DU weapons will not come into contact with contamination, and will face only minimal risks. However, those living or working near

1. <http://www.un.org/Docs/journal/asp/ws.asp?m=A/C.1/71/L.63>

2. DU metal older than three months has a specific activity of 35MBq/kg.

3. ICBUW (2014) Malignant Effects: Depleted uranium as a genotoxin and carcinogen: <http://www.bandedpleteduranium.org/en/malignant-effects>

4. See: UNEP Balkans: 2001, 2002, 2003; Iraq: 2005, 2007; IAEA Kuwait: 2003; Iraq: 2010.

5. PAX (2012) Hazard Aware: Lessons learned from military field manuals on depleted uranium and how to move forward for civilian protection norms: <http://www.bandedpleteduranium.org/en/hazard-aware>

6. This was acknowledged by the WHO in its report to the UN Sec Gen in 2010, “People living or working in affected areas may inhale re-suspended contaminated dusts”: <http://www.un.org/Docs/journal/asp/ws.asp?m=A/65/129>

contaminated sites are more at risk of exposure, particularly if they are not aware of the contamination. DU weapons have been used in populated areas and against many different kinds of targets. This has made it more likely that people will come into contact with DU. Other at risk groups include those in the scrap metal trade⁷ and deminers.

It is possible to use modelling to make an estimate of risk but until we have reliable data to assess how much DU can get into the bodies of civilians who have been exposed to DU, or what harm it would cause, uncertainties will remain.

ARE WE STILL CONCERNED ABOUT DU CONTAMINATION?

In 2014, Iraq, the country most heavily affected by wartime DU use called for assistance from the international community in studying its impact and in dealing with contamination⁸. Earlier this year, the US Nuclear Regulatory Commission forced the US Army into complying with risk reduction measures at 15 DU-contaminated facilities in the US⁹.

The majority of states that use DU are actively researching alternative materials for their weapons due to the health and environmental implications of their testing and use¹⁰.

Field research in the Balkans¹¹ and Iraq¹² has revealed the longstanding concerns from communities over the known or suspected presence of DU contamination. Finally the much delayed release of just under half of the US's targeting coordinates from the 2003 Iraq War has highlighted the scale of contamination from the conflict, with more than 1,000 sites now known to have been affected¹³. The revelation that the US has used DU munitions in Syria, and the public response to it, underscore the importance of both this resolution and the topic more generally¹⁴.

Taken as whole, developments since the last General Assembly resolution on DU indicate that states, affected communities, health experts and civil society remain as concerned as ever over the potential health impact from both recent and historical DU use. A fact that should be reflected in resolution L.63.

WHERE ARE THE GAPS?

- States that have used the weapons have not released all the data on where they have been fired. As a result only a small proportion of sites have been assessed for contamination.
- Civilians living, working or playing in proximity to contaminated sites have not been tested for exposure.
- Large scale epidemiological studies designed to identify changes in cancer rates are almost impossible to conduct in post-conflict settings.
- Without formal obligations for DU clearance, contaminated sites often remain unaddressed, increasing the likelihood that civilians will be exposed to DU.

WHAT WE KNOW

- That DU has the potential to enter the human body and affect health.
- That the risk of human exposure are highly variable depending on the characteristics of the site, how the land used and what remedial measures may or may not have been taken.
- That contamination is persistent in the environment.
- That international organisations and militaries recommend precautionary measures to minimise the risk of exposure.

7. Highlighted by UNEP (2007), WHO (2010) and discussed in further detail in PAX (2014) Laid to Waste: depleted uranium contaminated military scrap in Iraq: <http://www.bandepleteduranium.org/en/laid-to-waste>

8. UN document A/69/151: <http://www.un.org/Docs/journal/asp/ws.asp?m=A/69/151>

9. ICBUW (2016) US Army's depleted uranium licencing saga highlights post-conflict contradictions: <http://www.bandepleteduranium.org/en/us-armys-depleted-uranium-licencing-contradictions>

10. ICBUW (2015) US tenders for safer penetrator materials blaming opposition to depleted uranium: <http://www.bandepleteduranium.org/en/us-tenders-for-safer-penetrator-materials-blaming>

11. ICBUW (2010) A Question of Responsibility: the legacy of depleted uranium use in the Balkans: <http://www.bandepleteduranium.org/en/docs/134.pdf>

12. PAX (2012) 2012. In a State of Uncertainty: Impact and implications of the use of depleted uranium in Iraq: <http://www.bandepleteduranium.org/en/in-a-state-of-uncertainty>

13. PAX & ICBUW (2016) Targets of Opportunity: Analysis of the use of depleted uranium by A-10s in the 2003 Iraq War: <http://www.bandepleteduranium.org/en/targets-of-opportunity>

14. ICBUW (2016) United States confirms that it has fired depleted uranium in Syria: <http://www.bandepleteduranium.org/en/united-states-confirms-fired-du-syria>