



CND BRIEFING

# Depleted uranium

The use of depleted uranium (DU) in weapons is controversial due to the serious health issues associated with exposure to the material. It is created as a waste product in the nuclear material making process. It has already had a devastating impact on civilians caught up in conflicts across the world. CND calls on the British government to introduce an immediate moratorium on its use of DU munitions and to support a UN resolution banning the use of DU in warfare.

## How is it used?

To make nuclear weapons or nuclear fuel, natural uranium is enriched to produce the isotope Uranium-235. The by-product in this process – DU – emits three quarters of the radioactivity of natural uranium and shares many of its other risks and dangers.<sup>1</sup>

DU is used for armour piercing tank rounds and bullets as it is so heavy, meaning it can easily penetrate steel. DU has also been used as a trim weight in aeroplanes because of its heaviness. When DU munitions hit their target, uranium oxide dust which can spread for miles is created, causing damage to human health and the environment. On impact, about 20% of DU burns spontaneously creating uranium oxide dust that is easily inhaled or ingested by anyone in its vicinity.

The United States of America and the United Kingdom are the only countries that are known to have used DU in a war setting. It was first used in weapons in the 1991 Gulf War, and then in Bosnia-Herzegovina in 1995, in Kosovo in 1999 in the 2003 Iraq War and most recently in Syria. The US admitted to using DU there on two occasions in November 2015, contrary to earlier claims and without informing its coalition allies.

## Health effects

DU is a radioactive and chemically toxic substance that poses serious risks to humans, including increased instances of cancer and birth defects. Other health problems associated with DU include kidney failure, nervous system disorders, lung disease and reproductive problems. The lack of reliable data on exposure to uranium, however, means that no large-scale study into its effects exists.

The Ministry of Defence disputes the risks of DU, but recommends ‘ongoing surveillance’ for veterans with embedded DU fragments.<sup>2</sup>

Anti-DU campaigner Major Doug Rokke is a forensic scientist who was sent to the Gulf by the US government to prepare soldiers to respond to nuclear, biological, and chemical warfare. Rokke attests that US soldiers and Iraqi civilians have been killed by exposure to DU.<sup>3</sup> He himself has been ill with respiratory problems and members of his team have died from cancers.

## Iraq

The Iraqi government believes that the use of DU in the 2003 invasion of the country has caused an increase in birth defects, with medical professionals in the country saying the rise is as much as 60% since 2003.<sup>4</sup> The Iraq Ministry of Health and the World Health Organisation launched an investigation in 2012 but are yet to report on their findings. Campaigners believe that DU must be considered a contributory factor in these horrifying cases.

For more information on the Act4Iraq campaign, see the website of the Campaign Against Depleted Uranium (CADU).<sup>5</sup>

## Environmental impact

The long-term effects of DU on the environment are not yet clear, but with a half-life of 4.5 billion years, this toxic substance will remain a hazard indefinitely. The UN has found evidence of DU in drinking water and in the air years after the material has been used.<sup>6</sup> There are huge economic costs entailed in decontaminating and continued monitoring of the areas where DU has been used.

## Ban needed

CND deplores the failure of existing arms control law to ban the use of uranium in non-nuclear weapons and calls for a moratorium on the manufacture, storage, testing, trade and use of depleted uranium munitions, leading to a global ban. This call has been echoed by the European Parliament and the Latin American Parliament. Belgium and Costa Rica have already banned DU weapons. The Irish and New Zealand parliaments have also come close to adopting similar legislation.

The UK has consistently voted against UN General Assembly resolutions on DU weapons. 151 states supported the most

recent resolution adopted in December 2016, which highlights the ongoing concerns of affected states and communities, health experts and civil society over the potential health risks from DU exposure. The text also recognises that countries affected by the use of DU weapons face considerable technical and financial barriers in dealing with contamination.

The UK should be vigorously involved in international efforts to ban DU, rather than denying the dangers entailed in its use. The government should introduce an immediate moratorium on its use of DU munitions as well as contribute to more meaningful research into the impact of uranium weapons on civilian populations.

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- 1 *'The health hazards of depleted uranium'*, Ian Fairlie (2008), Disarmament Forum 2008 (3) United Nations Institute for Disarmament Research <http://www.unidir.org/files/publications/pdfs/uranium-weapons-en-328.pdf>
  - 2 *Depleted Uranium Munitions Policy Paper* (2013), Ministry of Defence [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/210641/Depleted\\_Uranium.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210641/Depleted_Uranium.pdf)
  - 3 More information available in an interview with Doug Rokke on the 'yes!' website: <http://www.yesmagazine.org/issues/our-planet-our-selves/594>
  - 4 *'Doctors in Basra report rise in birth defects'*, BBC News (2013), <http://www.bbc.co.uk/news/world-middle-east-21873892>
  - 5 More information available at <http://www.cadu.org.uk/cadu/act4iraq/>
  - 6 *'Effects of the use of armaments and ammunitions containing depleted uranium – Addendum'*. United Nations document (2008) [http://www.un.org/ga/search/view\\_doc.asp?](http://www.un.org/ga/search/view_doc.asp?)

