

Ideas for Action

- Log on to www.cadu.org.uk/action and sign the global petition against DU.
- Raise the profile of the issue. Contact the media, or create your own media. Contact CADU for materials and ideas. Demonstrate or take direct action - ICBUW has an international day of action in early November each year.
- Challenge the government over their continued use of DU - write to them directly, or via your constituency MP. Better still, lobby them in person.
- Read up further on the issues. There are many resources and links on the CADU and ICBUW websites.



- In the UK, Barclays, HSBC, Lloyds TSB, and the Royal Bank of Scotland all fund companies which manufacture DU. If you bank with them or a subsidiary, close your account and let them know why.
- Join the campaign - affiliate your group to CADU, or create a new group. Help us by donating money or time to the campaign.

Affiliate or Donate to CADU

I would like to affiliate to CADU, and receive a year's subscription to the quarterly CADU News:

Waged (£10) Unwaged (£8) Group (£30)

I enclose a donation of _____

Name _____

Address _____

Please make cheques payable to 'CADU'. We can also accept money by PayPal and standing order. Visit the CADU website for more information

The Campaign

CADU is a founder member of the International Coalition to Ban Uranium Weapons (ICBUW) – now comprising over 102 member organisations in 27 countries.

CADU and ICBUW campaign for a precautionary approach: there is significant evidence that DU is dangerous, and faced with scientific uncertainty the responsible course of action is for it not to be used. To this end CADU and ICBUW are working towards an international treaty that bans the use of uranium in weapons akin to those banning cluster bombs and landmines.

Through the efforts of campaigners worldwide the use of DU has been condemned by four resolutions in the European Parliament, been the subject of an outright ban in Belgium, and brought onto the agenda of the United Nations General Assembly.

Our Aims

- To fight for a global ban on the manufacture, export and use of weapons containing uranium.
- To fight for recognition by the Ministry of Defence that these weapons are connected with serious illnesses.
- To put pressure on governments to take responsibility for environmental decontamination in areas where DU has been used.



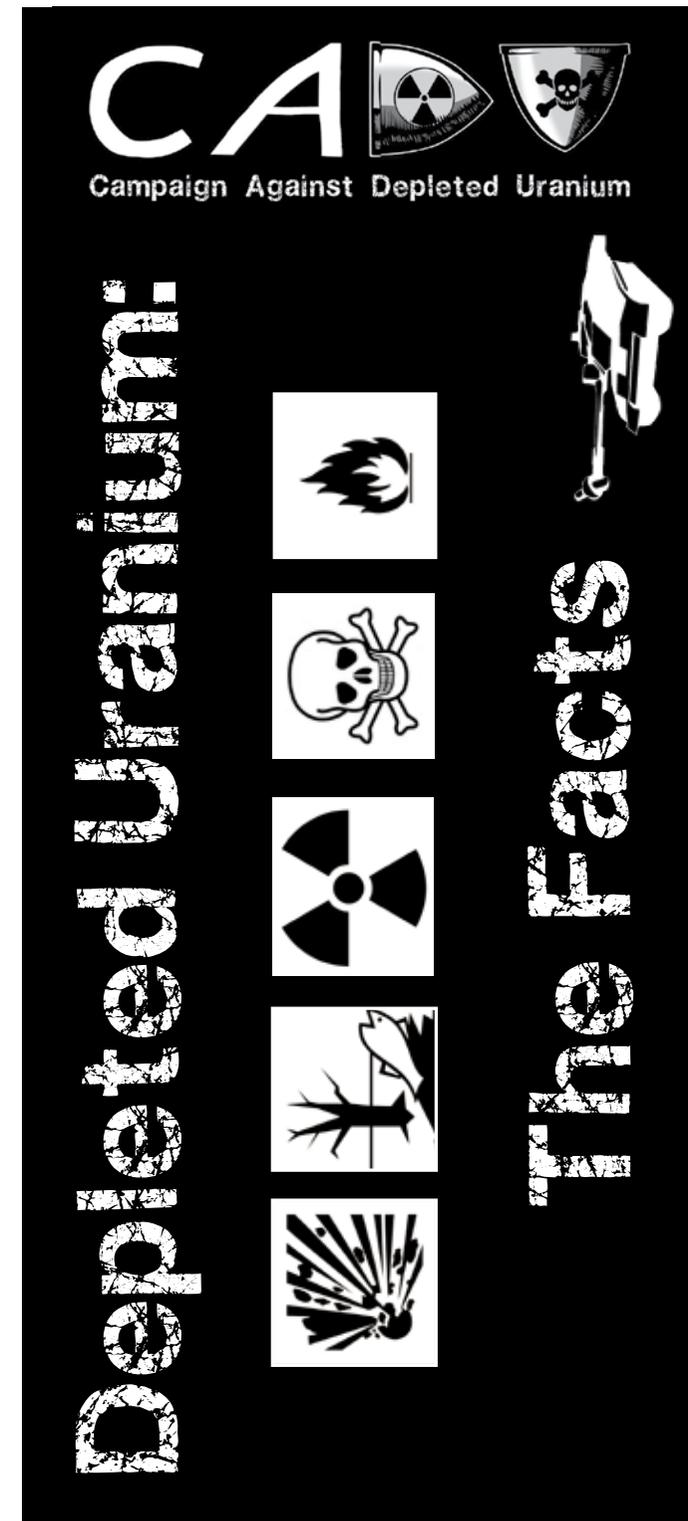
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What is DU?

- Depleted Uranium is a waste product of the nuclear enrichment process.
- After natural uranium has been 'enriched' to concentrate the isotope U235 for use in nuclear fuel or nuclear weapons, what remains is DU.
- The process produces about 7 times more DU than enriched uranium.

Despite claims that DU is much less radioactive than natural uranium, it actually emits about 75% as much radioactivity. It is very dense and when it strikes armour it burns (it is 'pyrophoric'). As a waste product, it is stockpiled by nuclear states, which then have an interest in finding uses for it.

DU is used as the 'penetrator' – a long dart at the core of the weapon – in armour piercing tank rounds and bullets. It is usually alloyed with another metal. When DU munitions strike a hard target the penetrator sheds around 20% of its mass, creating a fine dust of DU, burning at extremely high temperatures.

This dust can spread 400 metres from the site immediately after an impact. It can be resuspended by human activity, or by the wind, and has been reported to have travelled twenty-five miles on air currents. The heat of the DU impact and secondary fires means that much of the dust produced is ceramic, and can remain in the lungs for years if inhaled.

Who uses it?

At least 18 countries are known to have DU in their arsenals:

- UK
- US
- France
- Russia
- China
- Greece
- Turkey
- Thailand
- Taiwan
- Israel
- Bahrain
- Egypt
- Kuwait
- Saudi Arabia
- India
- Belarus
- Pakistan
- Oman

Most of these countries were sold DU by the US, although the UK, France and Pakistan developed it independently.

Only the US and the UK are known to have fired it in warfare. It was used in the 1991 Gulf War, in the 2003 Iraq War, and also in Bosnia-Herzegovina in the 1990s and during the NATO war with Serbia in 1999. While its use has been claimed in a number of other conflicts, this has not been confirmed.



A doctor at a maternity ward in the state of Musanna shows photos of deformed babies born after the start of the Iraq War (Naomi Toyoda)

Health Problems

- DU is both chemically toxic and radioactive. In laboratory tests it damages human cells, causing DNA mutations and other carcinogenic effects.
- Reports of increased rates of cancer and birth defects have consistently followed DU usage.
- Representatives from both the Serbian and Iraqi governments have linked its use with health problems amongst civilians.
- Many veterans remain convinced DU is responsible for health problems they have experienced since combat

Information from animal studies suggests DU may cause several different kinds of cancer. In rats, DU in the blood-stream builds up in the kidneys, bone, muscles, liver, spleen, and brain. In other studies it has been shown to cross both the blood-brain barrier and the placenta, with obvious implications for the health of the foetus. In general, the effects of DU will be more severe for women and children than for healthy men.

In 2008 a study by the Institute of Medicine in the US listed medical conditions that were a high priority to study for possible links with DU exposure: cancers of the lung, testes and kidney; lung disease; nervous system disorders; and reproductive and developmental problems.

Epidemiology

What is missing from the picture is large-scale epidemiological studies on the effects of DU – where negative health effects match individuals with exposure to DU. None of the studies done on the effects on soldiers have been large enough to make meaningful conclusions. No large scale studies have been done on civilian populations.

In the case of Iraq, where the largest volume of DU has been fired, the UK and US governments are largely responsible for the conditions which have made studies of the type required impossible. Despite this, these same governments use the scientific uncertainties to maintain that it is safe, and that concerns about it are misplaced.

However, in cases where human health is in jeopardy, a precautionary approach should prevail. Scientific scepticism should prevent a hazardous course of action from being taken until safety is assured. To allow it to continue until the danger has been proved beyond dispute is an abuse of the principle of scientific caution.

Environmental Impacts

The UN Environment Programme (UNEP) has studied some of the sites contaminated by DU in the Balkans, but it has only been able to produce a desk study on Iraq. Bullets and penetrators made of DU that do not hit armour become embedded in the ground and corrode away, releasing material into the environment.

It is not known what will happen to DU in the long term in such circumstances. The UNEP mission to Bosnia and Herzegovina found DU in drinking water, and could still detect it in the air after seven years – the longest period of time a study has been done after the end of a conflict.

Uranium has a half life of 4.5 billion years, so DU released into the environment will be a hazard for unimaginable timescales.

Decontaminating sites where DU has been used requires detailed scrutiny and monitoring, followed by the removal and reburial of large amounts of soil and other materials. Monitoring of groundwater for contamination is also advised by UNEP. CADU calls for the cost of cleaning up and decontaminating DU affected sites to be met by the countries responsible for the contamination.