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QUESTION OF THE VIOLATION OF HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS  
IN ANY PART OF THE WORLD

Written statement\*/ submitted by Centre Europe Tiers-Monde,  
a non-governmental organization in general consultative status

The Secretary-General has received the following written statement which is circulated in accordance with Economic and Social Council resolution 1996/31.

[6 March 2000]

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\*/ This written statement is issued, unedited, as received from the submitting non-governmental organization(s).

## **Use of depleted uranium (DU) in armed conflicts and its effects on economic, social and cultural rights: Gulf and Kosovo cases**

Ammunition made of DU was first used in combat by American and British forces during the 1991 Gulf War. Since then, DU ammunition has been firmly established as a tool of modern warfare.

DU is the low-level radioactive waste product of the uranium enrichment process. As nuclear waste, it is literally dirt cheap. The United States alone has produced some 700 million kilograms of DU. Recent disclosures indicate that some of the United States' DU (and the ammunition made from it) contains plutonium and neptunium.

DU's extreme density and pyrophoricity (ability to burn) made it attractive for use in ammunition called *kinetic energy penetrators*. This ammunition does not explode; rather, it relies upon density and speed to pierce its target.

### **Effects of Depleted Uranium on Health**

DU presents the greatest risk to human health when fragments are embedded in the body or when DU dust is inhaled or ingested. During and after the Gulf War, thousands of soldiers and local civilians may have inhaled or ingested DU dust. The effects of this dust on soldiers and civilian populations have not been studied. However, a study of several veterans wounded by DU fragments has found elevated levels of DU in veterans' urine and semen, abnormal reproductive hormone levels, and subtle neurocognitive problems.

Recent US military studies of mice found that DU fragments in the body break down over time, releasing DU particles into the bloodstream which lodge primarily in the kidney and bone and to a lesser degree in the brain, testes, lymph nodes, and other organs. DU also crosses the placenta of pregnant female mice and lodges in the fetus.

Observed health effects include decreased litter size in mice born to DU-implanted females and neurocognitive problems. *In vitro* studies found DU induces mutagenicity and cellular changes that may cause cancer. Based on their findings, US military researchers have called for further studies of DU's carcinogenicity, immunotoxicity, neurotoxicity, and male and female reproductive effects.

The proliferation of DU ammunition virtually guarantees its use in the future. Since 1991, DU ammunition has spread to more than 20 countries, including Russia, China, Iran, Israel, Turkey, and Pakistan. As more armed forces acquire and use DU ammunition, the difficulty of preventing DU's health and environmental effects increases.

The amount released in future conflicts could easily surpass the 290 metric tons used in the 1991 Gulf War. The United States' use of DU ammunition has reached the point of failing to adequately protect soldiers from exposure, of withholding warnings from civilian populations, and of neglecting to clean up DU contamination. If this behavior is adopted by other countries in future conflicts, health and environmental effects of the use of DU ammunition will significantly increase over time.

### **Aspects of the problem**

- There is a lack of research specifically examining the health and environmental effects of DU ammunition.
- Health and safety laws generally require the use of protective equipment in contaminated areas and medical testing of individuals with known or suspected exposures to dangerous toxins.
- The extent to which plutonium and neptunium contaminate the DU ammunition shot in the United States, Iraq, Kuwait, Bosnia, Puerto Rico, and Kosovo remains unknown, and this limits thorough health assessments.
- The international community has agreed to restrict the use of certain weapons that can cause widespread and/or lasting harm. The release of DU may result in «superfluous injury or unnecessary suffering» to civilian populations, which would place DU ammunition in violation of Article 35 of the 1977 Protocol to the Geneva Convention.
- If DU ammunition is determined to be illegal under existing agreements, or it becomes subject to a comprehensive prohibition, the United Nations or the International Criminal Court could hold governments and individuals accountable for its use. The threat or imposition of reparations could induce governments and armed forces to provide warnings to civilian populations and conduct post-conflict clean up of DU contamination.
- The dictates of conscience require careful consideration of the effects spent DU ammunition may have on human beings, and on the land and water people depend upon to survive.
- The United States alone has 35 different anti-armor weapons, plus another 10 weapons under development. DU ammunition is but one tool in a vast anti-armor arsenal, and its necessity is highly questionable.

### **Impediments**

Continuous Pentagon resistance to investigations of DU ammunition represents the most significant impediment to a resolution of this issue. While the Pentagon is primarily interested in safeguarding the use of DU ammunition, it is also strongly influenced by a desire to avoid the

financial obligations of cleaning up DU contamination and assisting veterans and civilians adversely affected by its use.

Pentagon spokesmen have consistently asserted that Gulf War DU exposures were minor in scope and severity, but US congressional investigators recently confirmed that the Pentagon has no data to support its position. This undermines the claims of the Pentagon-funded RAND Corporation report, which concluded that not one Gulf War veteran was exposed to enough DU to cause any health problems.

The Pentagon has refused to comply with a 1993 congressional mandate to study the health effects of inhaled and ingested DU dust. In 1999, the Pentagon obstructed a United Nations investigation of the use of DU in Kosovo and is continuing to withhold vital information from the UN-mandated Balkans Task Force charged with cleaning up the pollution caused by the war.

Those who profit from the manufacture and sale of DU ammunition, and those who desire to use it, are maneuvering to ensure the unrestricted future use of DU munitions. Among the parties with an economic stake in the continued use of DU ammunition are the US Department of Energy, US Department of Defense, US ammunition manufacturers such as Primex Technologies and Aerojet Corp., and arms merchants in Russia, Pakistan and other countries. A major incentive to downplay DU's dangers is the exorbitant cost of cleaning up and disposing of DU contamination.

DU ammunition is very effective in piercing armored targets such as tanks, and also underground installations. Since military decision-making focuses on short-term goals rather than long-term effects, military planners are highly unlikely to consider health and environmental consequences of using DU ammunition.

#### THE INTERNATIONAL SCENE SINCE THE YUGOSLAVIA WAR

In the international arena, there is evidence of powerful opposition to efforts to evaluate the most recent known use of DU, to wit in the 1999 Yugoslavia war, and to study the question in a broader context. An initial assessment mission to Yugoslavia in May, 1999, included a specialist from the UN Environmental Program. His report warning of DU contamination was suppressed, apparently upon orders from people at the top susceptible to pressure from the Pentagon. In June, the World Health Organization undertook to produce a fact sheet on DU then quietly cancelled it, apparently in deference to the International Atomic Energy Agency which has effective veto power over any WHO project touching on public health and radiation (even though the IAEA is not a public health agency and is not competent to study such questions itself). Since then the WHO has announced that it will limit itself to a generic study of DU, which must be peer-reviewed and whose preparation could take several years. The Balkans Task Force, mandated to assess the war-engendered pollution, was refused access to NATO's targets and munitions lists.

Yet the United Kingdom government saw fit to issue a travelers' advisory aimed particularly at media and humanitarian workers, warning against DU contamination. The Dutch government announced that it would issue protective clothing to its troops in Kosovo, to guard against DU contamination. (Curiously, later, in the fall of 1999, all clothing and equipment used by Dutch troops in the area of Prizren was summarily collected, shipped to the Netherlands sealed in heavy-duty plastic and stored in depots reserved for dangerously contaminated material.)

The Belgian government announced that, upon return to Belgium, troops sent to the area would be tested for DU contamination. Both Italian and German soldiers in the area are under strict orders not to eat anything outside their mess halls and supply depots, specifically no locally produced food, because of the fear that DU has entered the food chain.

Sadako Ogata, High Commissioner for Refugees, has admitted her grave concern for the safety of the Office's aid workers in the field because of the danger of DU contamination. These have been offered the option of refusing duty stations in Yugoslavia and have been informed that if they do accept such a posting a note will be put in their personnel files attesting to this posting, in order to facilitate, if necessary, the workers' later claims for compensation, in the event of negative effects upon their health imputable to their Yugoslavia duty. Further, the Office of the High Commissioner has seen fit to make certain that no pregnant women are sent to the area.

Yet the United States government adamantly refuses to admit that their acknowledged use of DU in Yugoslavia -- or elsewhere, for that matter -- might cause environmental and health dangers. Further, they are still dropping DU on southern Iraq in their continuing bombing campaigns there.

There is an indisputable need for additional research to clarify DU's health and environmental effects. Future research by international experts should examine the amounts of DU oxides likely to be inhaled or ingested in a range of exposure scenarios, and the possible short- and long-term effects these levels of exposure could have on living organisms. When the levels of plutonium and neptunium in America's DU ammunition are revealed, additional health assessments should be performed.

While additional research is conducted, domestic and international courts should hold governments and armed forces accountable for failing to protect soldiers from exposure, withholding warnings from civilian populations, and neglecting to clean up DU contamination. Strict adherence to health and safety laws could prevent or minimize DU's potential adverse health and environmental effects.

The most practical way to prevent the proliferation of DU ammunition use, however, is to persuade armed forces to suppress it.