



# General Assembly

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## Seventy-ninth session

Item 98 (cc) of the preliminary list\*

### General and complete disarmament

## Effects of the use of armaments and ammunitions containing depleted uranium

### Report of the Secretary-General

#### *Summary*

The present report contains views of Member States on the effects of the use of armaments and ammunitions containing depleted uranium. The Secretary-General has, to date, received six replies from Governments.

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\* [A/79/50](#).



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## I. Introduction

1. The General Assembly, in paragraph 2 of its resolution [77/49](#), invited Member States and relevant international organizations, particularly those that have not yet done so, to communicate to the Secretary-General their views on the effects of the use of armaments and ammunitions containing depleted uranium, and requested the Secretary-General to submit an updated report on the subject to the General Assembly at its seventy-ninth session.
2. On 8 February, a note verbale was sent to Member States requesting them to submit their reports by 31 May 2024. The Office for Disarmament Affairs also submitted a similar request to the International Atomic Energy Agency, the United Nations Environment Programme and the World Health Organization. To date, the Secretary-General has received six replies from Governments.
3. Any views received after the deadline will be posted on the website of the Office for Disarmament Affairs in the original language of submission. No addendum will be issued.

## II. Replies received from Governments

### Cuba

[Original: Spanish]  
[7 May 2024]

The use of depleted uranium in the military sector causes serious damage to human health and the environment. Continued research is needed to assess the health risks and long-term environmental impact through data provided by countries affected by radioactive waste arising from the use of depleted uranium in armed conflict.

Although it is difficult to predict the impact that armaments or ammunitions containing depleted uranium will have when they hit a particular area and affect living beings, water sources and soil, it is necessary to discuss how to address, as a pre-emptive measure, the potential damage arising from the use of depleted uranium.

Cuba advocates the placement of a limitation, through binding standards, on the use of depleted uranium in the military sector, especially in cases where it is used for offensive purposes.

In line with the principles of international law, including international humanitarian law, Cuba supports the prohibition of the use of weapons, projectiles and materials that may cause unnecessary suffering.

In order to facilitate the assessment, administration and clearance of contaminated sites, it is vital that Member States that have used armaments and ammunitions containing depleted uranium provide detailed information to the competent authorities of the countries concerned regarding the location of the sites in which they were used and the amounts.

The recommendations of the International Atomic Energy Agency, the World Health Organization and the United Nations Environment Programme concerning mitigation of both confirmed and potential hazards from contamination resulting from the use of depleted uranium should be implemented by all those involved.

Cuba is deeply concerned about the widespread, long-term and severe damage to the environment caused by the use of armaments containing depleted uranium and recalls that their use is prohibited under international humanitarian law. Their use also

runs counter to the environmental conservation aims of Governments and the international community.

Cuba reiterates the importance of General Assembly resolution [77/49](#), which addresses a matter of concern and particular relevance for humanity, and hopes that the authorities of the States Members of the United Nations and relevant international organizations will be able to report regularly to the Secretary-General their views on the effects of the use of armaments and ammunitions containing depleted uranium, in accordance with the request made in that resolution.

## Guatemala

[Original: Spanish]

[30 May 2024]

The effects of depleted uranium on health and the environment have been investigated by various specialists, including the World Health Organization, which has concluded the use of armaments and ammunitions containing depleted uranium has hazardous effects on both health and the environment. However, there is a need for further research to assess the risks posed by depleted uranium.

As a peaceful country, Guatemala is a party to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, which condemns the use of weapons that have indiscriminate effects, and to the Treaty on the Non-Proliferation of Nuclear Weapons, which obliges countries to refrain from any activity involving nuclear resources carried out for non-peaceful purposes.

## Mexico

[Original: Spanish]

[21 May 2024]

Mexico is submitting this document pursuant to General Assembly resolution [77/49](#), entitled “Effects of the use of armaments and ammunitions containing depleted uranium”.

Mexico believes that the use of depleted uranium should be limited to applications that have exclusively peaceful purposes, such as research activities, medical applications, industrial activities and electricity generation.

Depleted uranium is a toxic substance, as it retains about 60 per cent of the radioactivity of natural uranium and emits high-energy alpha and gamma rays capable of penetrating heavy armour plating and thick cement walls.

Mexico is deeply concerned about the use of depleted uranium for military purposes. Exposure to depleted uranium has serious consequences, including an impact on all forms of life in areas where depleted uranium has been used, contamination of land and aquifers, long-term effects and humanitarian consequences in contaminated areas following the use of depleted uranium in conflict.

The disarmament and non-proliferation regime includes legally binding standards to regulate the use of nuclear material, including depleted uranium, for peaceful purposes. It is regrettable that the international legal regulatory framework does not have specific legal standards to limit the use of depleted uranium for military purposes, in particular, to regulate and limit its use in strengthening weapons systems, projectiles, bombs and missiles.

Mexico joins the international community in its concern, expressed at the General Assembly, and recognizes the serious effects on human health and the environment of the use of armaments and ammunitions containing depleted uranium.

The World Health Organization (WHO) has recognized that the use of depleted uranium for military purposes has significant effects on the environment, as it causes contamination of land, which leads to the contamination of crops and bodies of water and affects food security. WHO has recognized the significant health effects on the civilian population exposed to depleted uranium in affected areas and has highlighted the differential impact on the health of girls and boys.

Mexico is not directly affected by the use of depleted uranium, as the Mexican armed forces do not produce armaments or ammunitions containing depleted uranium, nor do they plan to use depleted uranium in the future. However, Mexico recognizes the existence of the issue and shares the concern of affected States, in which there are contaminated areas following the use of depleted uranium in conflict.

As a State party to the Treaty on the Non-Proliferation of Nuclear Weapons, Mexico recognizes the inalienable right of all States to develop the applications of nuclear energy for peaceful purposes. It also reiterates the obligation of States to refrain from any activity carried out for non-peaceful purposes in violation of the provisions of the Treaty, and their obligation to promote transparency and cooperation with the International Atomic Energy Agency (IAEA).

At the national level, the National Commission for Nuclear Safety and Safeguards maintains regulatory control over all imported depleted uranium present in Mexico, whether that be containers of radioactive material or material destined to become nuclear waste.

In accordance with the safeguards agreement signed between Mexico and IAEA, the National Commission for Nuclear Safety and Safeguards carries out the accounting for and control of depleted uranium and submits the related reports to IAEA, which carries out in-field verification activities, in addition to accounting for the declared material.

Mexico attaches great importance to nuclear safety and security, and has thus continued its efforts to establish an effective and sustainable national system in that regard. In compliance with the safeguards agreement signed between Mexico and IAEA, the National Commission for Nuclear Safety and Safeguards therefore exercises strict control over radioactive material.

Moreover, in 2022, Mexico sent a letter of political commitment to IAEA whereby it undertook to apply the supplementary guidance to the Code of Conduct on the Safety and Security of Radioactive Sources approved by the Board of Governors and General Conference of IAEA.

Mexico reiterates its full commitment to preventing the use or diversion of radioactive material for non-peaceful purposes. Mexico will support all scientific efforts to continue the analysis of the effects of the use of armaments and ammunitions containing depleted uranium on human health and the environment. Mexico will also continue to support the adoption of specific standards, including legally binding standards, to limit the use of depleted uranium for military purposes, in view of the humanitarian consequences of its use.

## Qatar

[Original: Arabic]

[9 April 2024]

### **General Assembly resolution 77/49 on the effects of the use of armaments and ammunitions containing depleted uranium**

Depleted uranium shells are a new generation of weapons that have been used in recent history. When a depleted uranium shell hits its target, a substantial amount of radioactive dust is released and ascends upwards in the column of hot air created by the heat of the explosion.

The three isotopes U-238, U-235 and U-234 are present in natural uranium in proportions of 99.28, 0.71 and 0.0058 per cent, respectively. Uranium is enriched through complex processes to increase the percentage of U-235 from 0.71 per cent to more than 90 per cent. It is then used as fuel for nuclear reactors or in the manufacture of nuclear fission bombs. A by-product of this process is depleted uranium. It is so called because its percentage of U-235 decreases from 0.71 per cent to 0.2–0.3 per cent, while its percentage of U-238 increases from 99.28 per cent to 99.7 per cent.

Depleted uranium is used in the production of anti-armour missiles due to a number of qualities, including its high density (19,000 kg/m<sup>3</sup>), which is what allows it to penetrate armour, and its low price. Although depleted uranium is only 60 per cent as radioactive as natural uranium, it is extremely dangerous to living organisms, as it emits high-energy alpha and gamma rays that have harmful health effects.

The State of Qatar proposes the following measures to address the effects of the use of armaments and ammunitions containing depleted uranium:

1. An international framework (intergovernmental group) should be set up to look into controlling and regulating the use of depleted uranium in warfare.
2. There should be coordinated international efforts to conduct a survey of the environmental effects of the use of depleted uranium shells in areas of operations to determine levels of contamination and develop suitable recommendations to protect the environment and humans in such areas.
3. We recommend continuing to conduct comprehensive periodic monitoring of areas contaminated by depleted uranium, since radioactive materials continue to be active for thousands of years. The countries that caused the contamination in the first place should be called on to provide the advanced devices and equipment necessary to treat the contaminants and remove their effects, in coordination with the relevant international organizations.
4. A voluntary fund should be set up to finance independent studies and scientific research on the effects of depleted uranium contamination and methods of treatment and removal. The countries that use such weapons should be the first to contribute.

## Serbia

[Original: English]

[29 May 2024]

In 1999, the North Atlantic Treaty Organization (NATO) used depleted uranium in its attacks on the Federal Republic of Yugoslavia. The 30 mm projectiles, containing 273 g of depleted uranium, were used on 112 locations in Kosovo and Metohija and on 7 locations in southern Serbia in the municipalities of Vranje,

Bujanovac and Preševo, as well as in Montenegro on the Luštica Peninsula. Relevant military and civilian institutions monitored the status of radioactivity during the war.

After the war, mixed teams were established, consisting of members of the chemical, biological, radiological and nuclear military branch and experts from the Vinča Institute for Nuclear Sciences, and tasked with determining the level of radioactive contamination of the soil. The value of 200 Becquerel/kg of the total content of uranium (natural and depleted in isotope uranium-235) was adopted as the allowed level of contamination at the surface level of the soil. In addition to radioactive material, other risk factors, such as toxic substances, stress, bad living conditions (collective and/or inadequate accommodation and shelters), meals and contagious diseases, were also taken into consideration.

### **International presences in Kosovo and Metohija and depleted uranium**

Exposure to depleted uranium became a problem for the international presences upon their arrival and deployment in the contaminated areas. The United Nations Environment Programme (UNEP) conducted the most extensive research and came to three important conclusions in its report, namely that there was no widespread contamination, except within 10–15 m of places where there had been direct hits; there was no water contamination; and there was no health risk except to those who had been in possession of projectile parts close to their bodies for a long time.

The Italian and German contingents were deployed in the most intensely targeted areas. The medical service of the Italian Armed Forces submitted a report on the number and frequency of malignancies that had affected their members who had served in the Balkans (Bosnia and Kosovo). A commission established for that purpose considered 30 cases in the period 1995–2000, 21 of which were relevant to deployments in the Balkans. It concluded that it was necessary to systematically monitor the health of the deployed contingents before and after deployment (up to five years). As early as April 2001, the number of those affected rose from 21 to 28, 8 of whom died. All of them had served in Bosnia. It was epidemiologically established that, although high, that number was not statistically significant in comparison with the total number of members of the Italian Armed Forces serving in Italy and considerably lower than expected.

### **Frequency of congenital abnormalities, malignancies and endocrine diseases in children born after the bombing of the Federal Republic of Yugoslavia (excluding Kosovo and Metohija)**

Research was conducted on a sample of 1,752 children born between 2000 and 2004. The control group consisted of 1,204 children born between 1995 and 1999, before the bombings. The annual incidence of hereditary congenital abnormalities, established under the internationally adopted incidence evaluation and on the basis of the 2002 population census results, accounted for 1 per cent of monogenic diseases, 2 per cent of polygenic multifactorial conditions and 0.6 per cent of chromosomopathies. The frequency of congenital abnormalities increased significantly after the bombings, while the data for endocrine and malignant diseases could not be statistically evidenced. In 2002, there was an increase in congenital haematological disorders; ventricular septal defects stood at 14.28 per cent, while congenital heart disease occurred in 0.8 per cent of newborn children. Chromosomal abnormalities accounted for 5.54 per cent of congenital abnormalities in 2003 and for 4.46 per cent in 2004.

### **Monitoring the health conditions of the members of the Armed Forces of the Federal Republic of Yugoslavia engaged during the bombings in Kosovo and Metohija**

After the conflict, a programme was established to monitor the health of the members of the Armed Forces of the Federal Republic of Yugoslavia who had been in potentially contaminated areas. Three risk categories were established (I, II and III) and the persons with a high risk of exposure were the individuals who had been in the immediate vicinity of facilities or assets hit by depleted uranium projectiles; engaged in the rescuing and remedial treatment of the injured or in asset decontamination; sustained depleted uranium projectile injuries and had wounds or contaminated fragments in their bodies; and worked or stayed in contaminated terrains (possibility of resuspension).

The programme lasted five years and more than 1,500 members of the Armed Forces of the Federal Republic of Yugoslavia were examined under the same protocol. Three fundamental problems were encountered, namely a relatively small group of examinees in relation to the number of persons exposed; the reorganization of many units and the demobilization of the reserve; and a short period of monitoring in view of the latency period.

#### **Instead of a conclusion: proposals for action**

- Establish a national programme to monitor health conditions and the impact of the use of depleted uranium ammunition on the health of the soldiers and policemen who were in the affected areas during and after the bombings.
- Formulate a long-term research programme and plan for multidisciplinary international studies.
- Continue the medical monitoring of the members of the Armed Forces of Serbia in the contaminated terrain and ensure that priority and adequate treatment is provided to those possibly affected by diseases.
- Assess the risk of late effects of radiation (malignant diseases and genetic disorders) for the population.
- Monitor hereditary congenital abnormalities in line with the recommendations of the World Health Organization.

### **Ukraine**

[Original: English]  
[31 May 2024]

Ukraine calls upon Member States to consider the propaganda regularly promoted by the Russian Federation about the alleged negative radiological and environmental impact of the use of weapons and ammunition containing depleted uranium as an element of ongoing information and of the psychological operations of the aggressor country against Ukraine and its allies.

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