

## ENVIRONMENTAL REMEDIATION IN THE NUCLEAR WEAPON BAN TREATY: A Comprehensive and Detailed Approach<sup>1</sup>

June 2017

The nuclear weapon ban treaty should require states parties to undertake environmental remediation to reduce the devastating harm caused by the use and testing of nuclear weapons. The environmental consequences of nuclear weapons have been one of the driving factors behind the nuclear weapon ban treaty. During the March 2017 session of the negotiations, states repeatedly highlighted the devastation caused by the use and testing of the weapons. In addition, at least 15 states, plus CARICOM, specifically addressed the value of including environmental remediation obligations in the new treaty. Remediation can help remove or contain contamination and minimize human exposure to radiation.

While the draft treaty text released on 22 May 2017 addresses environmental remediation, which is a positive development, it should be significantly stronger on this topic. Draft Article 6(2) declares that affected states parties have a “right to seek and to receive assistance toward the environmental remediation of areas . . . contaminated [by use or testing].” The treaty should take the next step and establish explicit remediation obligations for affected states parties, whether in a stand-alone article or as part of what is now Article 6. It should establish clear guidelines while allowing states flexibility in implementation. The treaty should also bolster the complementary and critical international and cooperation obligations that appear in draft Article 8. This package could build on the precedent of analogous clearance provisions in other humanitarian disarmament treaties, especially the Convention on Cluster Munitions, because clearance activities, like environmental remediation, are intended to eliminate harm from remnants of war.

### Importance of Environmental Remediation

Nuclear weapons release enormous amounts of radiation that affect wide geographic areas over long periods of time. Impacts include:

- *Harm to the environment*—Soil, water, plants, and animals absorb ionizing radiation, and the intense fires caused by thermal radiation can release enough smoke into the atmosphere to affect the ozone layer and global weather patterns.

---

<sup>1</sup> This summary paper is based on a longer research paper, ‘Environmental remediation in the nuclear weapon ban treaty: a comprehensive and detailed approach,’ available at: <http://www.article36.org/wp-content/uploads/2017/06/ER-ban-treaty-full.pdf>

- *Harm to human health*—Exposure to high levels of radiation can cause severe health effects, such as cancer, birth defects, and infectious diseases.
- *Other harms to humans*—Radiation can negatively affect food sources by contaminating crops, livestock, and wild game. It can lead to large-scale displacement, creating a host of socioeconomic and cultural problems.

The draft treaty’s preamble provides a welcome recognition of the grave consequences of nuclear weapons to the environment and the link between damage to the environment and harm to humans. It notes deep concern about “the catastrophic humanitarian consequences that would result from any use of nuclear weapons” and adds that those consequences “pose grave implications for human survival, the environment, socioeconomic development, the global economy, food security and for the health of future generations.” It also highlights the implications of nuclear weapons for “the health of future generations,” which can be threatened by long-term environmental contamination, and the international humanitarian law prohibition on “use of methods or means of warfare which are intended or may be expected to cause [widespread, long term and severe] damage to the natural environment and to thereby prejudice the health or survival of the population.”

Environmental remediation is crucial to mitigating the harmful effects of nuclear weapons. It involves rehabilitating the environment and preventing humans from being exposed to radiation.

- *Environmental rehabilitation* can decontaminate an area by separating radioactive material from the soil, or it can prevent the spread of radiation by capping or solidifying contaminated soil.
- *Risk reduction measures* reduce human exposure to radiation. They include marking affected areas with warning signs, educating civilians about risks, providing safe food products to affected populations, and monitoring levels of radiation.

### **The Need for Comprehensive and Detailed Treatment of Environmental Remediation in Nuclear Weapon Ban Treaty**

Recent disarmament treaties have set a precedent requiring states parties to clear remnants of weapons. The new ban treaty should continue this practice by explicitly obliging affected states parties to deal with the byproducts of nuclear weapons use and testing. Comprehensive and detailed treatment of environmental remediation would signal its importance while:

- *Furthering the treaty’s humanitarian goal*, which is to reduce human suffering from the use and testing of nuclear weapons. Environmental remediation obligations would help achieve that goal by mitigating future harm.
- *Providing clarity* about states parties’ obligations regarding environmental remediation. Remediation is a complex process, and the treaty should lay out guidelines for implementation yet leave states parties flexibility to deal with their specific situations.
- *Setting a widely accepted standard* that could influence the behavior of states not party.

- *Advancing international law.* While reinforcing the clearance obligations in past treaties, it would expand the scope to encompass toxic, as well as explosive, remnants of war. It would also address clearance of remnants of weapons of mass destruction for the first time.

### **Environmental Remediation Elements in Nuclear Weapon Ban Treaty**

The package of environmental remediation obligations in the nuclear weapons ban treaty can be modeled on the clearance provisions in the Convention on Cluster Munitions, Protocol V of the Convention on Conventional Weapons, and Mine Ban Treaty.

#### *Obligations on Affected States Parties*

The treaty should:

- Place primary responsibility on affected states parties to undertake environmental remediation and to do so as soon as possible. Affected state responsibility would follow the precedents of disarmament law. It would be consistent with human rights law, which requires states to protect people in their territory; reducing environmental harm contributes to that end. Affected states are also better positioned to coordinate clearance efforts in their territory and could view outside interference as an infringement on their sovereignty. Assigning primary responsibility to affected states would not create insurmountable obstacles even for those facing the most catastrophic environmental damage. Remediation encompasses many steps, which vary in cost and difficulty, and heavily affected states would have the capacity to implement at least some of them, through a combination of through their own resources and significant international assistance.
- Require these states to:
  - Assess the threats of nuclear contamination and prioritize steps for remediation;
  - Take measures to reduce risks of exposure, such as marking and fencing dangerous areas, posting warning signs, and educating civilians about threats and ways they can protect themselves;
  - Work to rehabilitate contaminated areas, by removing or containing contaminants;
  - Establish a national plan to ensure funding and implementation of these measures; and
  - Monitor contaminated sites and report on the status and progress of environmental remediation measures.

#### *International Cooperation and Assistance Obligations*

The treaty should also require *all* states parties to provide international cooperation and assistance to affected states to help them implement their environmental remediation obligations. Outside assistance is essential to ensuring affected states parties can meet their responsibilities. Knowing other states parties are required to provide help would also encourage affected states to join the treaty.

Draft Article 8 is a good starting point, but should be stronger and clearer. The treaty should:

- Require states parties to provide assistance as well as cooperation;
- Elaborate on the types of assistance states parties should provide, such as technical, material, or financial help. User states parties could agree to take on obligations to give extra assistance, including in the form of information; and
- Enumerate areas, including environmental remediation, for which international cooperation and assistance is required.

This obligation could appear in a provision with other environmental remediation obligations or, more likely, as part of a separate international cooperation and assistance article.

**Contact:** Bonnie Docherty, Harvard Law School [bdocherty@law.harvard.edu](mailto:bdocherty@law.harvard.edu) or Elizabeth Minor, Article 36, [elizabeth@article36.org](mailto:elizabeth@article36.org)