

# Implementing Environmental Remediation under the Treaty on the Prohibition of Nuclear Weapons

The First Meeting of States Parties (1MSP) to the Treaty on the Prohibition of Nuclear Weapons (TPNW) provides an important opportunity for countries to establish environmental remediation as a core priority of this humanitarian disarmament treaty and to begin the process of meeting their obligations under Articles 6(2) and 7. This fact sheet aims to help states parties prepare for the 1MSP by identifying immediate and long-term steps they should take to implement the treaty's environmental remediation provisions (excerpted below). The fact sheet:

- Recommends measures states parties should commit to at the 1MSP,
- Lays out a framework to guide environmental remediation over time, and
- Provides information on nuclear weapons use and testing and their environmental consequences as well as a list of resources.

Harvard Law School's International Human Rights Clinic has also produced a parallel factsheet entitled "Implementing Victim Assistance under the Treaty on the Prohibition of Nuclear Weapons."

## Relevant Treaty Provisions

### Article 6(2): Environmental Remediation

Each State Party, with respect to areas under its jurisdiction or control contaminated as a result of activities related to the testing or use of nuclear weapons or other nuclear explosive devices, shall take necessary and appropriate measures towards the environmental remediation of areas so contaminated.

### Article 7: International Cooperation and Assistance

1. Each State Party shall cooperate with other States Parties to facilitate the implementation of this Treaty.
2. In fulfilling its obligations under this Treaty, each State Party shall have the right to seek and receive assistance, where feasible, from other States Parties.
3. Each State Party in a position to do so shall provide technical, material and financial assistance to States Parties affected by nuclear-weapons use or testing, to further the implementation of this Treaty....
6. Without prejudice to any other duty or obligation that it may have under international law, a State Party that has used or tested nuclear weapons or any other nuclear explosive devices shall have a responsibility to provide adequate assistance to affected States Parties, for the purpose of victim assistance and environmental remediation.

# Recommendations for the First Meeting of States Parties

The TPNW's 1MSP should stress the importance of environmental remediation in its discussions and outcome documents. It should also adopt a final report, a declaration, and an action plan, in which states parties agree to initiate implementation of their Article 6(2) and Article 7 obligations. In particular, states parties at the 1MSP should commit to the following measures.<sup>1</sup>

## 1. Assessing Environmental Contamination and State Remediation Capacity

Each state party should assess the nature, extent, and effects of contamination from nuclear weapons use or testing in areas under its jurisdiction or control and any pathways through which communities might be exposed to unacceptable risk. It should also evaluate its national capacity to remediate the contaminated environment. It should use this information to prioritize its response, identify challenges, and request support from donor states parties.

## 2. Creating a National Environmental Remediation Infrastructure

Each affected state party should adopt a comprehensive national environmental remediation plan, designate a government focal point to ensure coordination and accountability, pass relevant laws and policies, and approve a budget with funds earmarked for environmental remediation. Other states parties should develop frameworks to provide international cooperation and assistance that will help affected states parties meet their Article 6(2) obligations. The 1MSP should set a deadline, ideally by the 2MSP, for completing this step and the previous one.

## 3. Establishing an Intersessional Environmental Remediation Committee

States parties at the 1MSP should establish an intersessional standing committee, or possibly an informal working group, to examine the challenges of environmental remediation in more depth. The body could also provide a forum for reporting on remediation needs and progress, exchanging best practices, facilitating international cooperation and assistance, and developing relevant international standards.

## 4. Including Affected Communities and Civil Society

States parties should actively involve affected communities and civil society organizations at all stages of the environmental remediation process. They should also ensure the 1MSP and all future formal and informal TPNW meetings are fully inclusive. Affected communities and civil society organizations can provide information about, inter alia, the environmental impacts of nuclear weapons use and testing and their preferences for how these impacts are addressed.

## 5. Upholding Guiding Principles of Implementation

States parties should commit to upholding the principles of non-discrimination and transparency, in addition to inclusivity, as they implement their environmental remediation obligations.

<sup>1</sup> Bonnie Docherty, "From Obligation to Action: Advancing Victim Assistance and Environmental Remediation at the First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons," *Journal for Peace and Nuclear Disarmament*, vol. 3(2) (2020).

# Framework for Future Implementation

While TPNW states parties should commit to initiating implementation of Articles 6(2) and 7 at the 1MSP, remediating contamination caused by nuclear weapons use and testing is a long-term process. The below framework for environmental remediation, drawn from the TPNW's provisions and humanitarian disarmament precedent, can help states parties fulfill their obligations over time. It can also serve as a guide for states not party that seek to reduce the humanitarian and environmental consequences of nuclear weapons.

## Purpose

Environmental remediation should protect the environment and affected communities from the contamination produced by nuclear weapons use and testing.

## Shared Responsibility

### *Affected State Responsibility*

Affected states parties should remediate contamination from nuclear weapons use and testing in areas under their jurisdiction or control.

### *International Cooperation and Assistance*

Other states parties, including states parties that have used or tested nuclear weapons, should provide financial, material, technical, and/or other assistance to affected states parties.

### *Exchange of Scientific and Technical Information*

States parties and other actors should share information with affected states parties regarding the potential effects of nuclear contamination and types of responses.

## Implementation Measures

### *Approach*

States parties should take a precautionary and iterative approach to environmental remediation.

### *Information Collection, Dissemination, and Preservation*

Affected states parties should collect and disseminate information regarding nuclear weapons contamination and remediation measures and preserve it for the conceivable radiological life of the waste.

### *Capacity Building*

States parties and other actors should promote capacity building in affected states parties to ensure long-term and effective environmental remediation.

## Types of Harm

The types of harm that environmental remediation should address include, but are not limited to: environmental degradation; loss of biodiversity; physical and psychological injuries and death; economic loss; obstacles to participation in cultural life; loss of access to natural resources; displacement; and infringement of human rights.

## Steps of Environmental Remediation

### *National Strategy*

Each affected state party should develop and implement a national environmental remediation strategy.

### *Survey and Assessment*

Affected states parties should survey and assess radioactive contamination and exposure pathways in order to develop and prioritize remediation plans.

### *Optimization*

Affected states parties should evaluate a range of environmental remediation options and implement those that produce the greatest net benefit to affected communities and the environment.

### *Containment, Treatment, or Removal*

When remedial measures are necessary and appropriate, affected states parties should contain, treat, or remove contamination.

### *Addressing Exposure Pathways*

Affected states parties should address the pathways by which communities are exposed to unacceptable risks, including by limiting access to contaminated sites.

### *Risk Reduction Education*

Affected states parties should ensure that risk reduction education programs are available to communities at risk from nuclear contamination.

### *Long-Term Management*

Affected states parties should manage contaminated materials and remediation sites as long as they pose a risk of radiological harm to people or the environment.

## Guiding Principles

### Inclusivity

Affected states parties should meaningfully consult with and actively involve affected communities and other stakeholders at all stages of the environmental remediation process.

### Non-Discrimination

Environmental remediation measures should not discriminate on the basis of race, sex, age, religion, disability, or other status.

### Transparency

Affected states parties should ensure transparency at all stages of the environmental remediation process.

## Environmental Consequences of Nuclear Weapons Use and Testing

Harm to the Environment	Associated Human Harm
<ul style="list-style-type: none"><li>• Poisoning of water sources</li><li>• Absorption of radiation by plants and animals</li><li>• Contamination of food chain</li><li>• Loss of biodiversity</li><li>• Ocean acidification</li><li>• Ecosystem damage</li><li>• Loss of access to natural resources</li><li>• Climate change</li></ul>	<ul style="list-style-type: none"><li>• Physical health impacts (e.g., cancer, infertility, birth defects)</li><li>• Psychological effects (e.g., anxiety about exposure)</li><li>• Damage to crops and livestock</li><li>• Food insecurity</li><li>• Loss of livelihood</li><li>• Disruption of cultural practices</li></ul>

## Use and Testing by the Numbers<sup>2</sup>

Use	Testing
2 attacks on Hiroshima and Nagasaki in 1945	At least 2,050 tests from 1945-2017 <ul style="list-style-type: none"><li>• More than 500 atmospheric and more than 1,600 underground tests</li><li>• Detonations took place in 15 countries and numerous bodies of water</li><li>• Fallout from least one test extended more than 27,000 square miles</li></ul>

## Resources

Article 36, *Banning Nuclear Weapons* (February 2013), [https://article36.org/wp-content/uploads/2013/02/Report\\_web\\_23.02.13.pdf](https://article36.org/wp-content/uploads/2013/02/Report_web_23.02.13.pdf)

Bonnie Docherty, “From Obligation to Action: Advancing Victim Assistance and Environmental Remediation at the First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons,” *Journal for Peace and Nuclear Disarmament*, vol. 3(2) (2020), pp. 253–64, <https://doi.org/10.1080/25751654.2020.1842657>

Matthew B. Bolton and Elizabeth Minor, eds., Special Section on Humanitarian and Environmental Consequences of Nuclear Weapons Testing, *Global Policy*, vol. 12(1) (February 2021), <https://onlinelibrary.wiley.com/toc/17585899/2021/12/1>

Harvard Law School International Human Rights Clinic, *Victim Assistance and Environmental Remediation in the Treaty on the Prohibition of Nuclear Weapons: Myths and Realities* (April 2019), [https://hrp.law.harvard.edu/wp-content/uploads/2019/05/TPNW\\_Myths\\_Realities\\_April2019.pdf](https://hrp.law.harvard.edu/wp-content/uploads/2019/05/TPNW_Myths_Realities_April2019.pdf)

Nuclear Weapons Ban Monitor, “The Obligation to Remediate Affected Territory,” <https://banmonitor.org/positive-obligations-1/the-obligation-to-remediate-affected-territory>, and “The Obligation to Cooperate with and Assist Other States Parties,” <https://banmonitor.org/positive-obligations-1/the-obligation-to-cooperate-with-and-assist-other-states-parties>

<sup>2</sup> Nuclear Weapons Ban Monitor, “The Obligation to Assist Victims,” <https://banmonitor.org/positive-obligations-1/the-obligation-to-assist-victims>; Matthew B. Bolton and Elizabeth Minor, “Addressing the Ongoing Humanitarian and Environmental Consequences of Nuclear Weapons: An Introductory Review,” *Global Policy*, vol. 12(1), February 2021, p. 82; Robert Alvarez, “The Marshall Islands and the NPT,” *Bulletin of the Atomic Scientists*, May 27, 2015.