



# **Confronting Conflict Pollution**

Principles for Assisting Victims of  
Toxic Remnants of War

Harvard Law School International Human Rights Clinic  
Conflict and Environment Observatory



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Cover Illustration

A woman looks at fire and smoke from oil wells set ablaze by Islamic State militants before they fled the oil-producing region of Qayyara.

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## Table of Acronyms

CCW	Convention on Conventional Weapons
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CEOBS	Conflict and Environment Observatory
CRPD	Convention on the Rights of Persons with Disabilities
ERW	Explosive Remnants of War
FARC	Revolutionary Armed Forces of Colombia
ICCPR	International Covenant on Civil and Political Rights
ICERD	International Convention on the Elimination of All Forms of Racial Discrimination
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICRC	International Committee of the Red Cross
IHRC	Harvard Law School International Human Rights Clinic
ILC	International Law Commission
ISIS	Islamic State
PERAC	Protection of the Environment in Relation to Armed Conflicts
TPNW	Treaty on the Prohibition of Nuclear Weapons
TRW	Toxic Remnants of War
UN	United Nations
UNCC	UN Compensation Commission
UNEA	UN Environment Assembly
UNEP	UN Environment Programme

## Executive Summary

Armed conflicts and military activities take a toll on the environment that significantly affects both people and ecosystems. Historically, the protections afforded by international and national law have proved insufficient to minimize new harm or address that which has occurred. Over the last decade, international efforts to address the environmental and associated humanitarian consequences of war have increased. These initiatives view a healthy environment as a foundation for human rights, sustainable development, and peacebuilding.

States, international organizations, and civil society have all been involved in these efforts. For example, the International Law Commission (ILC) is engaged in a multi-year process to develop principles that would enhance the “protection of the environment in relation to armed conflicts” (PERAC).<sup>1</sup> States at the United Nations Environment Assembly (UNEA) have adopted resolutions regarding pollution and other environmental damage caused by armed conflict.<sup>2</sup> UN-appointed experts and nongovernmental organizations have spotlighted the environmental effects of armed conflict and military activities as well as the shortcomings of existing law.<sup>3</sup> The International Committee of the Red Cross (ICRC) is updating environmental guidelines for military manuals that it first published in 1994.<sup>4</sup>

At the same time, the concept of “victim assistance” has become a well-established component of humanitarian disarmament law. Humanitarian disarmament strives to prevent and remediate the human suffering and environmental harm inflicted by arms.<sup>5</sup> Its major treaties—notably the Mine Ban Treaty, the Convention on Cluster Munitions, and the Treaty on the Prohibition of Nuclear Weapons (TPNW)—all require states parties to provide assistance to people, civilians and combatants alike, who have been harmed by banned weapons or the remnants they leave behind.

This report adapts humanitarian disarmament’s norms of victim assistance to the context of environmental harm, specifically the pollution associated with military activities, during armed conflict and beyond. It identifies 14 principles designed to meet the short- and long-

<sup>1</sup> International Law Commission, “Analytical Guide to the Work of the International Law Commission: Protection of the Environment in Relation to Armed Conflicts,” [http://legal.un.org/ilc/guide/8\\_7.shtml](http://legal.un.org/ilc/guide/8_7.shtml) (accessed January 10, 2020).

<sup>2</sup> UN Environment Assembly, Resolution 3/1: Pollution Mitigation and Control in Areas Affected by Armed Conflict or Terrorism, UNEP/EA.3/Res.1, January 30, 2018, <https://undocs.org/UNEP/EA.3/Res.1> (accessed January 10, 2020); UN Environment Assembly, Resolution 2/15: Protection of the Environment in Areas Affected by Armed Conflict, UNEP/EA.2/Res.15, August 4, 2016, <https://undocs.org/UNEP/EA.2/Res.15> (accessed January 10, 2020).

<sup>3</sup> See, for example, UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, Baskut Tuncak, A/HRC/36/41, July 20, 2017, [http://ap.ohchr.org/documents/dpage\\_e.aspx?si=A/HRC/36/41](http://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/36/41) (accessed January 10, 2020), para. 44; UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/33/41, August 2, 2016, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G16/169/26/PDF/G1616926.pdf?OpenElement> (accessed January 7, 2020), para. 16. See generally Conflict and Environment Observatory, <https://ceobs.org/> (accessed January 10, 2020); PAX, “Conflict and Environment,” <https://www.paxforpeace.nl/our-work/programmes/conflict-environment> (accessed January 10, 2020).

<sup>4</sup> International Committee of the Red Cross, “33rd International Conference of the Red Cross and Red Crescent: International Humanitarian Law and the Challenges of Contemporary Armed Conflicts,” October 2019, [https://rcrcconference.org/app/uploads/2019/10/33IC-IHL-Challenges-report\\_EN.pdf](https://rcrcconference.org/app/uploads/2019/10/33IC-IHL-Challenges-report_EN.pdf) (accessed January 21, 2020), chap. VI; International Committee of the Red Cross, “Natural Environment: Neglected Victim of Armed Conflict,” June 5, 2019, <https://www.icrc.org/en/document/natural-environment-neglected-victim-armed-conflict> (accessed January 21, 2020).

<sup>5</sup> For more information, see Bonnie Docherty, “A ‘Light for All Humanity’: The Treaty on the Prohibition of Nuclear Weapons and the Progress of Humanitarian Disarmament,” *Global Change, Peace & Security* (2018): 2-8, accessed January 10, 2020, doi:10.1080/14781158.2018.1472075; Humanitarian Disarmament, “About,” <https://humanitariandisarmament.org/about/> (accessed January 10, 2020).

term needs of those affected by “toxic remnants of war” (TRW), i.e., toxic or radiological substances resulting from military activities that form a hazard to humans or ecosystems.

These Principles do not constitute a mechanism of compensation for unlawful acts. Instead they embody a collective commitment to work towards victims’ full and effective participation in society and to help them realize their human rights.

The Principles are divided into six categories, which:

- Articulate the purpose of victim assistance, i.e., to address victims’ needs and promote their human rights;
- Define the terms “toxic remnants of war” and “victims,” thus establishing the Principles’ scope of application;
- Enumerate the many types of harm that victims of TRW experience and the corresponding types of assistance that should be provided to them;
- Outline a framework of shared responsibility under which affected states work with donor states and other actors to ensure the delivery of adequate assistance;
- Highlight key elements of implementation, focusing on the dissemination of information, the development of national strategies, and capacity building; and
- Present four guiding principles—accessibility, inclusivity, non-discrimination, and transparency—that are fundamental to effective victim assistance programs.

To develop the 14 Principles, the Harvard Law School International Human Rights Clinic (IHRC) and the Conflict and Environment Observatory (CEOBS) examined the environmental effects of armed conflict and other military activities and conducted an in-depth study of relevant law, policy, and practice. Humanitarian disarmament’s norms of victim assistance provided a foundation for the Principles, but IHRC and CEOBS modified those norms to address the specific problems of TRW. The co-authors took into account the distinctive characteristics of TRW, such as the temporal and geographic extent of TRW’s effects and the challenges of pinpointing TRW as a specific source of harm. They also used precedent from international human rights law, international environmental law, and international humanitarian law to reinforce and refine the humanitarian disarmament model. IHRC and CEOBS vetted the Principles with a variety of experts at different stages of drafting.

Part I of this report lists the Principles that resulted from this process. Part II provides a detailed commentary. The commentary includes a discussion of the meaning and importance of each principle and an analysis of precedent from law, policy, and practice. IHRC and CEOBS urge states and organizations to use the Principles and associated commentary as a guide for reducing the human cost of environmental harm related to armed conflicts and military activities.

## PART I: PRINCIPLES



## Purpose of Victim Assistance

### Principle 1: Purpose

Victim assistance should address the immediate and ongoing needs of individuals, families, and communities affected by toxic remnants of war (TRW) and promote the full realization of their human rights.

## Definitions

### Principle 2: Toxic Remnants of War

Toxic remnants of war are toxic or radiological substances resulting from military activities that form a hazard to humans or ecosystems.

### Principle 3: Victims

Victims of TRW are individuals who have suffered harm caused or aggravated by TRW as well as their affected families and communities.

Where a certain amount and duration of exposure to a toxic or radiological substance is strongly associated with a particular harm, that exposure should be presumed to be a cause of the harm. Victim status under these Principles should not depend on identifying the actor(s) responsible for the TRW.

## Types of Harm and Assistance

### Principle 4: Types of Harm

Victim assistance should address harms caused or aggravated by TRW including, but not limited to: physical injuries and death; psychological injuries; social marginalization; economic loss; obstacles to participation in cultural life; adverse impacts from environmental degradation or loss of biodiversity; and substantial impairment of the realization of victims' human rights.

### Principle 5: Types of Victim Assistance

Victim assistance may include but is not limited to: medical care, rehabilitation, and psychological support; provision for victims' social and economic inclusion; acknowledgment of harm; measures to facilitate participation in cultural life; remediation of contaminated environments; access to accurate and comprehensive information regarding the harms and risks associated with TRW; and measures to ensure victims can fully realize their human rights.

## Framework of Shared Responsibility

### Principle 6: Responsibility

States should provide assistance to TRW victims in areas under their jurisdiction or control.

Other states, especially states whose actions generated TRW, should provide financial, material, technical, and/or other assistance to "affected states," i.e., those with TRW victims in areas under their jurisdiction or control, to help them meet their victim assistance responsibilities.

### Principle 7: Exchange of Scientific and Technical Information

States (especially states whose actions generated TRW), international organizations, nongovernmental organizations, and other actors should, to the extent possible, share scientific and technical information with affected states regarding TRW and possible responses.

## Implementation

### Principle 8: Collection and Dissemination of Information

Affected states should, on an ongoing basis, collect and ensure the dissemination of information regarding the presence of TRW on their territory and the potential harms those TRW have caused or may cause.

### Principle 9: National Strategy

Affected states should develop and implement a comprehensive and coordinated national victim assistance strategy that plans for victims' short- and long-term needs.

### Principle 10: Capacity Building

States, international organizations, nongovernmental organizations, and other actors should promote capacity building to ensure long-term and effective implementation of victim assistance.

## Guiding Principles

### Principle 11: Accessibility

In order to be effective, assistance should be accessible to victims. Accessibility requires identifying and eliminating obstacles to access, including but not limited to informational and physical barriers.

### Principle 12: Inclusivity

Affected states should meaningfully consult with and actively involve victims and their representative organizations at all stages of the victim assistance process.

### Principle 13: Non-discrimination

Assistance programs must not discriminate against or among TRW victims, or between TRW victims and those who have suffered harm from other causes. Victim assistance should not be provisioned or withheld on the basis of race, color, language, ethnicity, sex, sexual orientation, gender identity, age, national origin, religion, disability, geographic location, or other status. Differences in treatment should be based only on medical, rehabilitative, psychological, or socioeconomic needs.

### Principle 14: Transparency

Affected states should ensure transparency with respect to the design, administration, implementation, monitoring, and evaluation of assistance.

# PART II: COMMENTARY



## Purpose of Victim Assistance

### Principle 1: Purpose

Victim assistance should address the immediate and ongoing needs of individuals, families, and communities affected by toxic remnants of war (TRW) and promote the full realization of their human rights.

#### Discussion

The concept of “victim assistance” has traditionally been understood as an effort to help mitigate the harm caused by specific weapons, notably antipersonnel landmines and cluster munitions, as well as the explosive remnants of war (ERW) they leave behind.<sup>6</sup> These Principles establish a similar framework that is adapted to the needs of people harmed by TRW. As discussed in more depth under Principle 2, some kinds of TRW are analogous to ERW in that they constitute the dangerous remains of a particular type of weapon. Depleted uranium, a toxic and radioactive heavy metal, is a component of certain munitions that can pollute the environment after use. The term “TRW” also refers more broadly to substances produced directly or indirectly by methods of armed conflict, such as a missile strike on a chemical factory, or by military activities beyond conflict.

Several characteristics associated with TRW inform these Principles. First, exposure to TRW can continue over time, and health problems can manifest long after an individual’s initial exposure. Contact with a landmine usually causes an immediate injury. If TRW pollute a local water supply, by contrast, a person may experience ongoing exposure to the harmful substance and only develop a physical ailment, such as cancer, years after the original contact.<sup>7</sup> Some effects even cross generations.

Second, the health problems linked to TRW can often be tied to other causes and may result from a combination of factors. Unlike victims of ERW, who can generally identify the direct cause of the harm they have suffered, TRW victims are often unable to pinpoint TRW as a specific source of harm, particularly in the complex polluted environments of contemporary armed conflicts. While an individual who loses a limb after the detonation of a landmine knows what inflicted the injury, a person who contracts cancer after contact with radioactive fallout may be unaware or unsure of the cause. Cancer can be multifactorial, with genetic, environmental, lifestyle, and other factors, alone or in conjunction, increasing the risk of developing it.

Third, limited understanding of the impacts of TRW complicates attribution of harm to specific causes. The harms arising from TRW may result from exposure to a mixture of toxic substances. These substances and their combined effects are often understudied, in part

<sup>6</sup> Explosive remnants of war (ERW) include “unexploded ordnance” and “abandoned explosive ordnance.” Protocol on Explosive Remnants of War 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 (CCW Protocol V), adopted November 28, 2003, 2399 U.N.T.S. 100, entered into force November 12, 2006, art. 2.

<sup>7</sup> See Joseph J. Mangano, “A Short Latency between Radiation Exposure from Nuclear Plants and Cancer in Young Children,” *International Journal of Health Services* 36 (2006): 113, accessed January 14, 2019, doi:10.2190/5GRE-KQ1B-UTM1-KHQ1, p. 113 (“The latency period between radiation exposure and the onset of cancer has been documented to be as long as several decades.”).

because identifying them requires complex methodologies.<sup>8</sup> In addition, political instability and logistical hurdles interfere with epidemiological research in post-conflict environments, and the movement of displaced persons can make it difficult to determine levels of exposure. Highlighting the scientific challenges to demonstrating causality, the UN special rapporteur on toxics noted that trying to “prove a causal link between health impacts . . . and potential exposure to thousands of different substances with known and unknown hazardous properties . . . can be an insurmountable obstacle.”<sup>9</sup>

Fourth, TRW are, in many cases, difficult to detect. Landmines and ERW may be hidden underground, but once uncovered they can be seen. TRW, by contrast, may be invisible to the human eye even when present in surrounding air, soil, or water. As a result, persons may unwittingly expose themselves over a period of time, especially when no immediate harm manifests itself.

Fifth, TRW can spread over a broad geographic area. Toxic substances can travel through air or water across regions or national borders. While ERW may also move—flooding can wash away submunitions—they generally remain in place until they come into contact with humans or animals.

The distinctive features of TRW, which create scientific uncertainty and complicate efforts to help victims, inform several aspects of these Principles. For example, the gap in time between exposure and the manifestation of health effects underscores the need for states to plan for long-term assistance. The challenges of proving a link between TRW and specific harm provides a compelling case for adopting the presumption of causality in Principle 3. The difficulty of detection and geographic spread highlight the importance of building state capacity to locate and monitor TRW and notifying the public about the risks that have been identified. Regardless of the differences between TRW and ERW, these Principles share the goal of all victim assistance efforts, i.e., to advance the well-being and promote the human rights of those who suffer harm related to armed conflict and military activities.

#### Precedent

In adapting the concept of victim assistance to the TRW context, Principle 1 and the Principles as a whole draw heavily on humanitarian disarmament law, a part of international humanitarian law. They also look to international human rights law and international environmental law. The Principles rely further on norms and best practices in these areas. Tables of the key treaties and normative documents appear at the end of this report.

Victim assistance provisions constitute a key component of humanitarian disarmament treaties, which seek to remediate as well as prevent the harm inflicted by arms. The 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (Mine Ban Treaty) mandates that all states parties “in a position to do so” provide assistance for mine victims.<sup>10</sup> Expanding on that obligation,

<sup>8</sup> See, for example, Mohamed Ghalaieny, Toxic Remnants of War Project, *Toxic Harm: Humanitarian and Environmental Concerns from Military-Origin Contamination*, February 2013, [http://www.toxicremnantsowar.info/wp-content/uploads/2013/03/Toxic\\_Harm\\_TRWProject.pdf](http://www.toxicremnantsowar.info/wp-content/uploads/2013/03/Toxic_Harm_TRWProject.pdf) (accessed January 10, 2019), pp. 10–11.

<sup>9</sup> UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/36/41, July 20, 2017, para. 106. The formal title of the special rapporteur on toxics is special rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes.

<sup>10</sup> Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (Mine Ban Treaty), adopted September 18, 1997, 2056 U.N.T.S. 211, entered into force March 1, 1999.

the 2008 Convention on Cluster Munitions lays out a more detailed victim assistance framework that has been described as the “gold standard.”<sup>11</sup> The Convention on Cluster Munitions obliges states parties with victims in areas under their jurisdiction or control to lead assistance efforts and other states parties to support them. The convention also enumerates requirements for the implementation of victim assistance. States parties to both of these treaties have elaborated on their obligations in implementation plans adopted at review conferences, such as the Nairobi, Cartagena, Maputo, and Dubrovnik Action Plans.<sup>12</sup> The 2017 Treaty on the Prohibition of Nuclear Weapons<sup>13</sup> follows the approach of the Convention on Cluster Munitions and requires states parties to assist victims of nuclear weapon use and testing, some of whom would be TRW victims under these Principles.<sup>14</sup>

In addition to prohibiting the use of certain weapons and requiring victim assistance, humanitarian disarmament treaties mandate clearance of remnants of war, which can injure humans or damage the environment. For example, under the TPNW, states parties are required to “take necessary and appropriate measures towards” remediating nuclear contamination.<sup>15</sup> Humanitarian disarmament treaties combine measures to relieve ongoing suffering with those to prevent future harm.

These Principles also draw on international human rights law. The 1966 International Covenant on Civil and Political Rights (ICCPR) and 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR) identify numerous rights that may be adversely impacted by TRW, thus necessitating assistance. The ICESCR embodies a cooperative approach to promoting human rights that informs the Principles’ shared responsibility framework.<sup>16</sup> Both covenants and other human rights treaties prohibit discrimination.<sup>17</sup> The 2006 Convention on the Rights of Persons with Disabilities (CRPD) serves as a particularly important model for

norms promoting the agency of rights-holders, which underlie many of these Principles.<sup>18</sup> Several political commitments on human rights, such as the 2007 UN Declaration on the Rights of Indigenous Peoples, provide further support for the Principles.<sup>19</sup>

Finally, these Principles look to international environmental instruments, standards, and commentary. In particular, they borrow from the 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)<sup>20</sup> and a number of UN declarations and expert reports that address human rights and the environment.<sup>21</sup>

<sup>11</sup> Human Rights Watch, *Meeting the Challenge: Protecting Civilians through the Convention on Cluster Munitions* (2010), [https://www.hrw.org/sites/default/files/report\\_pdf/201011arms\\_meeting\\_the\\_challenge\\_full.pdf](https://www.hrw.org/sites/default/files/report_pdf/201011arms_meeting_the_challenge_full.pdf) (accessed January 8, 2020), p. 153; Convention on Cluster Munitions, adopted May 30, 2008, 2688 U.N.T.S. 39, entered into force August 1, 2010.

<sup>12</sup> “Ending the Suffering Caused by Anti-Personnel Mines: Nairobi Action Plan 2005-2009,” in First Review Conference of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, “Final Report,” APLC/CONF/2004/5, February 9, 2005, <http://undocs.org/APLC/CONF/2004/5> (accessed January 20, 2020), part III (Nairobi Action Plan); Second Review Conference of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, “Cartagena Action Plan 2010-2014, Ending the Suffering Caused by Anti-Personnel Mines,” APLC/CONF/2009/9, December 11, 2009, <https://www.icrc.org/en/doc/assets/files/other/cartagena-action-plan-2010-2014.pdf> (accessed January 7, 2020) (Cartagena Action Plan); Third Review Conference of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction, “Maputo Action Plan,” APLC/CONF/2014/WP.5, June 16, 2014, [https://www.maputoreviewconference.org/fileadmin/APMBC-RC3/Maputo\\_Action\\_Plan.pdf](https://www.maputoreviewconference.org/fileadmin/APMBC-RC3/Maputo_Action_Plan.pdf) (accessed January 20, 2020) (Maputo Action Plan); “Dubrovnik Action Plan,” in Review Conference of States Parties to the Convention on Cluster Munitions, “Final Report,” CCM/CONF/2015/7, October 13, 2015, <https://undocs.org/CCM/CONF/2015/7> (accessed January 7, 2020), annex III (Dubrovnik Action Plan).

<sup>13</sup> Treaty on the Prohibition of Nuclear Weapons (TPNW), adopted July 7, 2017, C.N.475.2017.TREATIES-XXVI.9.

<sup>14</sup> Even though the TPNW will not bind states parties until it enters into force, these Principles use the present tense to refer to its obligations for the sake of consistency across the disarmament conventions.

<sup>15</sup> TPNW, art. 6(2).

<sup>16</sup> International Covenant on Economic, Social and Cultural Rights (ICESCR), adopted December 16, 1966, G.A. Res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16), at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force January 3, 1976, art. 2(1).

<sup>17</sup> International Covenant on Civil and Political Rights (ICCPR), adopted December 16, 1966, G.A. Res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force March 23, 1976, art. 2(1); ICESCR, art. 2(2); Convention on the Rights of Persons with Disabilities (CRPD), adopted May 3, 2008, 2515 U.N.T.S. 3, entered into force May 3, 2008, art. 5(2); Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted December 18, 1979, G.A. Res. 34/180, 34 U.N. GAOR Supp. (No. 46) at 193, U.N. Doc. A/34/46, entered into force September 3, 1981, art. 2; International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), adopted December 21, 1965, G.A. Res. 2106 (XX), annex, 20 U.N. GAOR Supp. (No. 14) at 47, U.N. Doc. A/6014 (1966), 660 U.N.T.S. 195, entered into force January 4, 1969, art. 2; Convention on the Rights of the Child (CRC), adopted November 20, 1989, G.A. Res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force September 2, 1990, art. 2(1).

<sup>18</sup> CRPD art. 9(1).

<sup>19</sup> See, for example, UN General Assembly, “UN Declaration on the Rights of Indigenous Peoples,” Resolution 61/295, A/RES/61/295, October 2, 2007, art. 32(2).

<sup>20</sup> Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), adopted June 25, 1998, 2161 U.N.T.S. 447, entered into force October 30, 2001, art. 4(1).

<sup>21</sup> See, for example, UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/36/41, July 20, 2017; UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, John H. Knox, A/HRC/34/49, January 19, 2017, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/009/97/PDF/G1700997.pdf?OpenElement> (accessed January 7, 2020).

## Definitions

### Principle 2: Toxic Remnants of War

Toxic remnants of war are toxic or radiological substances resulting from military activities that form a hazard to humans or ecosystems.

#### Discussion

The term “toxic remnants of war” applies to substances that are released due to military activities and pose a threat to humans or ecosystems. Toxic substances are materials that are poisonous or harmful to living organisms,<sup>22</sup> such as nitric acid, an oxidizing agent often mixed with fuel to launch SCUD missiles.<sup>23</sup> Radiological substances are radioactive materials, ranging from fallout after nuclear weapon testing to the tritium and radium discovered in abandoned military aircraft instrument panels in Afghanistan.<sup>24</sup>

The definition of TRW focuses on harmful substances “resulting from military activities.” The definition encompasses the toxic and radiological by-products of particular weapons. It also covers toxic and radiological substances from other conflict-related sources, such as conventional weapon attacks on oil wells or industrial plants. Furthermore, the definition applies to contaminants released by military activities occurring outside armed conflict, such as the testing of weapons or the use of burn pits during an occupation.

TRW are limited to toxic and radiological materials that pose a hazard. The Oxford English Dictionary defines “hazard” as a “risk, danger, [or] jeopardy,” or a “risk of loss or harm posed by something; a possibility of danger or an adverse outcome.”<sup>25</sup> The word thus excludes contaminants that do not pose a threat of harm to humans or ecosystems, although as discussed under Principle 4, harm should be understood broadly.<sup>26</sup>

The inclusion of ecosystems recognizes the intrinsic value of the environment and the need for its protection. These Principles, however, focus on assisting humans harmed by TRW; addressing harm exclusively to ecosystems would require a different kind of response. Consequently, these Principles are concerned with TRW that pose hazards to ecosystems when those hazards could adversely affect humans, such as when TRW contaminate fish and wildlife, agricultural areas, or water sources.

<sup>22</sup> See, for example, US Agency for Toxic Substances and Disease Registry, “Glossary of Terms,” <https://www.atsdr.cdc.gov/glossary.html> (accessed January 7, 2020) (defining “toxic agent[s]” as “chemical or physical . . . agents that, under certain circumstances of exposure, can cause harmful effects to living organisms”).

<sup>23</sup> UN Environment Programme (UNEP), “Ground Contamination Assessment Report: Military Waste Storage Site, Astana, Afghanistan,” 2006, [https://wedocs.unep.org/bitstream/handle/20.500.11822/7638/-Ground\\_contamination\\_assessment\\_report\\_Military\\_waste\\_storage\\_site,\\_Astana,\\_Afghanistan-2006ground\\_contamination\\_report\\_afghanistan.pdf.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/7638/-Ground_contamination_assessment_report_Military_waste_storage_site,_Astana,_Afghanistan-2006ground_contamination_report_afghanistan.pdf.pdf?sequence=3&isAllowed=y) (accessed October 5, 2019), pp. 7, 11.

<sup>24</sup> *Ibid.*, pp. 7, 10–12.

<sup>25</sup> *Oxford English Dictionary Online*, 2019, s.v. “hazard,” <https://www.oed-com.ezp-prod1.hul.harvard.edu/view/Entry/84853?rskey=nssCXd&result=1&isAdvanced=false#eid> (accessed January 11, 2020).

<sup>26</sup> The Toxic Remnants of War Project chose to use the word “hazard” because it sought a broad definition. An alternative proposal was to focus on “substances that: ‘can have damaging effects to humans and ecosystems,’ as the criterion. The difference between the two criteria lies in the fact that ‘forms a hazard’ has a focus on the potential for harm or damage to the environment, whereas when using ‘damaging effects’ as the criteria, the burden of proof could be higher, as proving harm could be more difficult than proving potential harm.” Ghalaieny, Toxic Remnants of War Project, *Toxic Harm: Humanitarian and Environmental Concerns from Military-Origin Contamination*, p. 20.

#### Precedent

Principle 2’s definition of TRW, which comes from language introduced by civil society, adapts the international humanitarian law concept of remnants of war to a new context.

The TRW definition builds on the notion of explosive remnants of war. ERW are defined in the 2003 Protocol on Explosive Remnants of War to the Convention on Conventional Weapons (CCW Protocol V) as “unexploded ordnance and abandoned explosive ordnance.”<sup>27</sup> The Convention on Cluster Munitions similarly defines “cluster munition remnants,” a type of ERW, as “failed cluster munitions, abandoned cluster munitions, unexploded submunitions and unexploded bomblets.”<sup>28</sup> Like ERW and cluster munition remnants, TRW encompass a range of materials that result from military activities and risk causing harm. TRW differ from ERW, however, because the threats they pose arises from their toxic or radiological character rather than explosive effects.

Following humanitarian disarmament precedent, the definition of TRW includes remnants resulting from both armed conflict and peacetime military activities. The Convention on Cluster Munitions does not limit its definition of cluster munition remnants to objects produced or used during armed conflict; remnants can also be found, inter alia, on firing ranges or in abandoned stockpiles. While the TPNW does not define nuclear weapons or contamination, its victim assistance article calls on states to assist those affected by the “use or testing” of nuclear weapons.<sup>29</sup> The reference to testing recognizes that TRW attributable to military activities outside of armed conflict can cause as much harm as weapons used during war.

As noted above, the definition of TRW differs from that of ERW because it contains a risk threshold. The nature of TRW necessitates this limitation. While any unexploded ordnance poses a risk of harm, low concentrations of toxic substances may not.

The term “TRW” emerged from the growing study of environmental consequences of armed conflict. In 2009, the UN Environment Programme (UNEP) documented the gaps in protection for the environment in armed conflict.<sup>30</sup> Thereafter, the International Committee of the Red Cross suggested that environmental damage in armed conflict might be managed similarly to ERW.<sup>31</sup> These developments led to the founding of the Toxic Remnants of War Project in 2012, a civil society-led research hub dedicated to documenting conflict pollution and promoting regulation.<sup>32</sup> The Project, and the later Toxic Remnants of War Network, promulgated the TRW definition used in these Principles.

Several recent UN publications have referenced TRW by name. In 2016, the special rapporteur on toxics used the term in a report to the Human Rights Council regarding the impact of

<sup>27</sup> CCW Protocol V, art. 2(1-4). The International Committee of the Red Cross (ICRC) characterizes ERW as “unexploded weapons such as artillery shells, mortars, grenades, bombs and rockets, left behind after an armed conflict.” International Committee of the Red Cross, “Explosive Remnants of War,” November 30, 2011, <https://www.icrc.org/en/document/explosive-remnants-of-war> (accessed January 7, 2020).

<sup>28</sup> Convention on Cluster Munitions, art. 2(7).

<sup>29</sup> TPNW, art. 6(1).

<sup>30</sup> Doug Weir, “Reframing the Remnants of War: The Role of the International Law Commission, Governments, and Civil Society,” in *Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices*, ed. Casten Stahn et al. (Oxford: Oxford University Press, 2017), p. 439.

<sup>31</sup> *Ibid.*, p. 443.

<sup>32</sup> *Ibid.*, p. 444. See also Toxic Remnants of War Project, “About,” <http://www.toxicremnantsofwar.info/about/> (accessed January 7, 2020).



hazardous substances on the rights of the child.<sup>33</sup> The International Law Commission has also used the term in its ongoing process to develop principles on the protection of the environment in relation to armed conflicts. In 2016, the special rapporteur on PERAC appointed by the ILC proposed a draft principle regarding clearance and mitigation measures to decrease “toxic and hazardous remnants of war.”<sup>34</sup> The rapporteur cited the Toxic Remnants of War Project’s TRW definition in her commentary,<sup>35</sup> and the ILC provisionally adopted the principle in 2018.<sup>36</sup> Similar to Principle 2, the ILC’s draft principle contains a harm threshold: it references toxic remnants that “are causing or risk causing damage to the environment.”<sup>37</sup> In July 2019, the ILC provisionally adopted a full set of 28 draft principles on PERAC and forwarded them to the UN General Assembly for comment.<sup>38</sup>

At least one state has embraced the term “toxic remnants of war” in official documents. Specifically, the Australian Department of Defence has issued “toxic remnants of war remediation contracts” through its Defence Environment and Heritage Panel, which dates back to 2014.<sup>39</sup>

Other international organizations and experts have highlighted the problems of conflict-related environmental contamination without using the term “TRW.” For example, in 2011 the ICRC noted that environmental damage “may emanate from chemicals and other pollutants leaking into the soil and groundwater as a result of military operations,” specifically citing “the destruction of power plants, chemical plants and other industrial installations” as examples.<sup>40</sup> More recently, a 2017 UN Environment Assembly resolution emphasized the need to manage pollution generated during armed conflict, one potential form of TRW.<sup>41</sup>

<sup>33</sup> UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, Baskut Tuncak, A/HRC/33/41, August 2, 2016, para. 16. The rapporteur discussed TRW again in a 2017 report. UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/36/41, July 20, 2017, para. 110.

<sup>34</sup> International Law Commission, “Report of the International Law Commission, Sixty-Eighth Session,” A/71/10, 2016, [http://legal.un.org/docs/?path=../ilc/reports/2016/english/a\\_71\\_10.pdf&lang=EFSRAC](http://legal.un.org/docs/?path=../ilc/reports/2016/english/a_71_10.pdf&lang=EFSRAC) (accessed January 7, 2020), p. 309.

<sup>35</sup> International Law Commission, “Report of the International Law Commission, Seventieth Session,” A/73/10, 2018, <https://undocs.org/en/A/73/10> (accessed January 7, 2020), p. 265.

<sup>36</sup> *Ibid.*, p. 240 (noting provisional adoption of draft principle 16).

<sup>37</sup> *Ibid.*, p. 248.

<sup>38</sup> International Law Commission, “Report of the International Law Commission Seventy-First Session,” A/74/10, 2019, <https://undocs.org/en/A/74/10> (accessed January 7, 2020), pp. 209–210.

<sup>39</sup> Australian Department of Defence, Toxic Remnants of War Remediation Contract, TRWRC-1 2013, [https://www.defence.gov.au/estatemangement/support/DEHP/Docs/TRWRC\\_Sep18.DOC](https://www.defence.gov.au/estatemangement/support/DEHP/Docs/TRWRC_Sep18.DOC) (accessed May 5, 2020); Australian Department of Defence, “Defence Environment and Heritage Panel (DEHP) 2014-2019: How to Engage the Panel,” <https://www.defence.gov.au/estatemangement/support/DEHP/HowToEngage.asp> (accessed May 5, 2020).

<sup>40</sup> International Committee of the Red Cross, “31st International Conference of the Red Cross and Red Crescent: Strengthening Legal Protection for Victims of Armed Conflicts,” October 2011, <https://www.icrc.org/en/doc/assets/files/red-cross-crescent-movement/31st-international-conference/31-int-conference-strengthening-legal-protection-11-5-1-1-en.pdf> (accessed January 7, 2020), p. 18.

<sup>41</sup> UN Environment Assembly, Resolution 3/1.

### Principle 3: Victims

Victims of TRW are individuals who have suffered harm caused or aggravated by TRW as well as their affected families and communities.

Where a certain amount and duration of exposure to a toxic or radiological substance is strongly associated with a particular harm, that exposure should be presumed to be a cause of the harm. Victim status under these Principles should not depend on identifying the actor(s) responsible for the TRW.

#### Discussion

The definition of victims incorporates individuals directly harmed by TRW as well as their affected families and communities.<sup>42</sup> Victim status is contingent on suffering harm from TRW. Absent injury, mere exposure to TRW does not make a person a victim. The range of harms that can result in an individual’s classification as a victim are addressed in more detail in Principle 4.

The ill effects experienced by victims may be caused in whole or in part by TRW, given that the injuries associated with TRW are also often linked to other factors. For example, as a result of its manufacturing process, Agent Orange, an herbicide and defoliant used widely in the Vietnam War, contained TCDD.<sup>43</sup> This carcinogenic dioxin has been found to contribute to a variety of diseases that have other causes, including Hodgkin’s disease, multiple myeloma, Parkinson’s disease, and prostate cancer.<sup>44</sup> TCDD is also linked to intergenerational harms, including birth defects such as spina bifida.<sup>45</sup> Because many factors can increase the risk that an individual will contract one of these diseases or have a birth defect, exposure to TCDD in Agent Orange may be only a partial cause.

A victim may also experience harm aggravated by TRW. In other words, contact with toxic or radiological substances may worsen other conditions. Air pollution from TRW may lead a person to experience more frequent or acute asthma attacks. Similarly, contamination of farmland may exacerbate damage from previous pollution, reducing crop yields and presenting economic difficulties. Both the asthmatic individual and the farmer would be covered by Principle 3.

The definition of victims extends to affected families and communities because the impacts of TRW are not limited to individuals. If individuals suffer from medical conditions due to TRW, their families or communities may need to dedicate time and resources to provide health care or monetary support. By denying access to agricultural land or safe fishing

<sup>42</sup> While recognizing that some people prefer the term “survivor” to “victim” because the former is more empowering, these Principles use victim to maintain consistency with existing humanitarian disarmament treaties and adopted principles of human rights. Furthermore, the definition of victim is broader because it includes those killed as well as those who survived. Instruments that use the term “victim” include the Mine Ban Treaty, Convention on Cluster Munitions, Treaty on the Prohibition of Nuclear Weapons, Basic Principles and Guidelines on the Right to a Remedy and Reparation, and Basic Principles of Justice for Victims of Crime and Abuse of Power.

<sup>43</sup> Michael F. Martin, Congressional Research Service, “U.S. Agent Orange/Dioxin Assistance to Vietnam,” updated February 21, 2019, <https://fas.org/srg/crs/row/R44268.pdf> (accessed January 7, 2020), p. 1.

<sup>44</sup> US Department of Veterans Affairs, “Veterans’ Diseases Associated with Agent Orange,” <https://www.publichealth.va.gov/exposures/agentorange/conditions/> (accessed January 7, 2020).

<sup>45</sup> US Department of Veterans Affairs, “Birth Defects in Children of Vietnam and Korea Veterans,” <https://www.publichealth.va.gov/exposures/agentorange/birth-defects/index.asp> (accessed January 7, 2020).

grounds, TRW may deprive farmers and fishers of their livelihoods and cause their families financial hardships. Provided that the harm to an individual—whether physical, psychological, socioeconomic, or other—affects members of their family or community, those people are covered by the definition of victim.

A presumption of causation can help address the challenges, discussed under Principle 1, of proving that TRW were the source of a specific harm. Where an individual can demonstrate a certain level of exposure to a toxic or radiological substance or combination of substances, and such exposure is known to produce particular harms, the exposure should be presumed to be a cause. The amount and duration of exposure that activates the presumption will vary based on the substance and associated impacts and will depend on available scientific evidence. Certain harms may arise after limited exposure to TRW, while others may require significant or long-term exposure. Short-term inhalation of mercury vapor, for example, is associated with respiratory illnesses, including pneumonitis. Longer periods of inhalation can lead to neuropsychiatric effects, such as cognitive and motor dysfunction.<sup>46</sup> Identifying victims who qualify for the presumption will require determining the amount and duration of their exposure and assessing known links between such exposure and ailments. The US program to assist military veterans exposed to Agent Orange exemplifies this approach. The program entitles veterans who were exposed to Agent Orange to disability benefits and health care if they develop one or more of a number of “presumptive diseases” associated with TCDD. Similarly, the approach presumes spina bifida in children of exposed service members is associated with Agent Orange.<sup>47</sup>

Finally, for the purposes of these Principles, the definition of victim does not depend on proving which actor or actors released the TRW. The identity of the responsible party does not determine the suffering a victim experiences. Furthermore, because TRW can be long-lasting and diffuse, identifying the relevant actor would in some cases present a significant obstacle. Identifying responsible parties is generally required for liability regimes, however. As is discussed under Principle 6, such regimes are not precluded by the victim assistance measures described in these Principles.

### Precedent

The different components of Principle 3’s definition of victim draw on humanitarian disarmament, existing assistance programs, and human rights principles.

Consistent with humanitarian disarmament law, the definition of victim only encompasses people who have suffered harm from TRW, as defined in Principle 4, not those who have been exposed but not harmed. The Convention on Cluster Munitions similarly defines “victims” as “all persons who have been killed or suffered” an enumerated type of injury.<sup>48</sup>

<sup>46</sup> US Agency for Toxic Substances & Disease Registry, “Medical Management Guidelines for Mercury (Hg),” undated, <https://www.atsdr.cdc.gov/MMG/MMG.asp?id=106&tid=24> (accessed January 7, 2020). The dangers of mercury are exemplified by the several tons of metallic mercury that leaked into surrounding areas following attacks that damaged a petrochemical plant in Serbia. See UNEP and UN Centre for Human Settlements, *The Kosovo Conflict: Consequences for the Environment* (1999), [http://www.toxicremnantsinfo.org/wp-content/uploads/2012/04/UNEP\\_Kosovowar\\_PCEA.pdf](http://www.toxicremnantsinfo.org/wp-content/uploads/2012/04/UNEP_Kosovowar_PCEA.pdf) (accessed January 7, 2020), p. 33.

<sup>47</sup> US Department of Veterans Affairs, “Veterans’ Diseases Associated with Agent Orange”; US Department of Veterans Affairs, “Birth Defects in Children of Vietnam and Korea Veterans.”

<sup>48</sup> Convention on Cluster Munitions, art. 2(1). The TPNW does not define victim, but it notes that states must assist persons “affected by the use or testing of nuclear weapons.” TPNW, art. 6(1). The types of assistance required imply that “affected” is equivalent to harmed.

Past programs to help those experiencing health-related effects arising from environmental contamination have addressed multiple causes and aggravating factors. For example, following the September 11 terrorist attacks on the United States, the US government created the World Trade Center Health Program. The program reimburses responders for medical care and monitoring expenses. Eligible responders include those who contracted an illness where exposure to toxins was a “significant factor in aggravating, contributing to, or causing” the condition.<sup>49</sup>

Humanitarian disarmament law and policy recognize that victim status should extend to affected families and communities. At the First Review Conference of the Mine Ban Treaty in 2004, states parties affirmed that landmine victims include those “individually or collectively” harmed, suggesting that families and communities may be victims.<sup>50</sup> The Convention on Cluster Munitions codified this approach, defining victims as those who have suffered injury “includ[ing] those persons directly impacted by cluster munitions as well as their affected families and communities.”<sup>51</sup> The UN Policy on Victim Assistance in Mine Action, a 2016 policy document that guides UN assistance to mine victims, also defines “victims” as “directly impacted individuals (including survivors) [and] their families and communities affected” by harmful explosive weapons or weapons remnants.<sup>52</sup>

Beyond the disarmament context, the Basic Principles and Guidelines on the Right to a Remedy and Reparation, which were adopted by the UN General Assembly in 2005 and draw on international humanitarian and international human rights law and standards, support the inclusion of affected families and communities. The Basic Principles and Guidelines state that “where appropriate . . . the term ‘victim’ also includes the immediate family or dependents of the direct victim and persons who have suffered harm in intervening to assist victims in distress or to prevent victimization.”<sup>53</sup> If individuals suffer gross rights violations, their family can experience collateral consequences, creating a need for assistance.

Assistance programs for harms from hazardous substances or environmental damage have used presumptive approaches. As of 2015, the United States had awarded over \$2 billion in compensation pursuant to the Radiation Exposure Compensation Act to individuals who contracted certain illnesses following their participation in the US atmospheric nuclear testing program or in uranium ore processing operations.<sup>54</sup> Under the act, claimants are not required to prove that exposure to radioactive materials was the sole reason they suffer from specific medical conditions. The act applies to those who were physically present in areas with radioactive materials.<sup>55</sup> Any of those persons who contract an illness that is scientifically linked to radiation exposure are then eligible to request compensation. The United States

<sup>49</sup> World Trade Center Health Program, 42 U.S.C. § 300mm-22(a)(1) (2012).

<sup>50</sup> First Review Conference of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, “Review of the Operation and Status of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Antipersonnel Mines and on their Destruction: 1999-2004,” APLC/CONF/2004/5, February 9, 2005, <http://undocs.org/APLC/CONF/2004/5> (accessed January 7, 2020), para. 64.

<sup>51</sup> Convention on Cluster Munitions, art. 2(1).

<sup>52</sup> United Nations, “The United Nations Policy on Victim Assistance in Mine Action,” 2016 update, [https://www.mineaction.org/sites/default/files/un\\_policy\\_on\\_victim\\_assistance\\_in\\_mine\\_action\\_2016\\_update\\_0.pdf](https://www.mineaction.org/sites/default/files/un_policy_on_victim_assistance_in_mine_action_2016_update_0.pdf) (accessed January 7, 2020), para. 18.

<sup>53</sup> UN General Assembly, “Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law,” Resolution 60/147, A/RES/60/147, December 16, 2005, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N05/496/42/PDF/N0549642.pdf?OpenElement> (accessed January 7, 2020), para. 8.

<sup>54</sup> US Department of Justice, “Justice Department Surpasses \$2 Billion in Awards under the Radiation Exposure Compensation Act,” March 2, 2015, <https://www.justice.gov/opa/pr/justice-department-surpasses-2-billion-awards-under-radiation-exposure-compensation-act> (accessed January 20, 2020).

<sup>55</sup> Radiation Exposure Compensation Act, 42 U.S.C. § 2210 note (2012).

developed a similar approach to medical care for responders to the September 11 attacks who were exposed to airborne toxins. To be entitled to reimbursement for medical expenses under the World Trade Center Health Program, individuals do not have to prove that their condition was a result of exposure. The program covers illnesses or health conditions “for which exposure to airborne toxins . . . is substantially likely to be a significant factor” in causing or aggravating the condition.<sup>56</sup>

Lastly, humanitarian disarmament law does not require victims to identify the actor that caused harm. Under the Convention on Cluster Munitions and the TPNW, victims are described without reference to an identifiable perpetrator of a legal wrong.<sup>57</sup> Rather, victims encompass all individuals who have been harmed by the applicable weapon or its remnant. International law uses mechanisms other than victim assistance to establish legal liability for those who unlawfully cause harm.

<sup>56</sup> World Trade Center Health Program, 42 U.S.C. § 300mm-22(a)(1).

<sup>57</sup> Convention on Cluster Munitions, art. 2(1) (defining “cluster munition victims” as “all persons who have been killed or suffered . . . injury . . . by the use of cluster munitions”); TPNW, art. 6(1) (referencing victim assistance obligations towards individuals “who are affected by the use or testing of nuclear weapons”).

## Types of Harm and Assistance

### Principle 4: Types of Harm

Victim assistance should address harms caused or aggravated by TRW including, but not limited to: physical injuries and death; psychological injuries; social marginalization; economic loss; obstacles to participation in cultural life; adverse impacts from environmental degradation or loss of biodiversity; and substantial impairment of the realization of victims’ human rights.

#### Discussion

Victim assistance seeks to address the full range of suffering that TRW can inflict. Victims may experience one or more types of harm, concurrently or across time. While not an exhaustive list, the types enumerated in Principle 4 include health effects, socioeconomic consequences, and obstacles to participation in cultural life.<sup>58</sup> TRW may also lead to environmental degradation and loss of biodiversity, which can in turn harm humans. Finally, those and other effects of TRW may infringe on victims’ human rights. Principle 4 adds cultural and environmental impacts, which are particularly relevant to TRW, to the list enumerated in earlier disarmament treaties.<sup>59</sup>

Health effects encompass physical and psychological injury. Physical injuries associated with TRW include: cancer; damage to internal organs, particularly lungs and kidneys; and skin irritation.<sup>60</sup> TRW can also compromise genetic material, causing intergenerational harm when mutations in cells are transmitted from parent to child.<sup>61</sup> Psychological trauma may result from the knowledge or fear that one has been exposed to or harmed by toxic or radiological materials,<sup>62</sup> or the stress of experiencing other harm such as ostracization or loss of livelihood. Physical injuries may also manifest in psychological symptoms. For example, childhood exposure to certain toxic substances, like lead, may cause brain damage that affects cognitive functions, such as decision-making.<sup>63</sup>

Socioeconomic consequences cover a spectrum of harms related to social marginalization and economic loss. Victims of TRW may face discrimination. For example, survivors of the atomic bombings of Hiroshima and Nagasaki found it difficult to obtain employment or get married. Employers assumed that the survivors would miss work due to constant illnesses, and potential partners thought that survivors would produce malformed children.<sup>64</sup> Individuals

<sup>58</sup> The phrase “participation in cultural life” draws on the cultural rights recognized in the ICESCR. That covenant guarantees the right of everyone to “take part in cultural life.” ICESCR, art. 15(1)(a).

<sup>59</sup> See, for example, Convention on Cluster Munitions, arts. 2(1), 5; TPNW, art. 6(1).

<sup>60</sup> US Department of Veterans Affairs, “Veterans’ Diseases Associated with Agent Orange”; World Health Organization, “Depleted Uranium: Sources, Exposure and Health Effects,” undated, [http://www.who.int/ionizing\\_radiation/pub\\_meet/en/DU\\_Eng.pdf](http://www.who.int/ionizing_radiation/pub_meet/en/DU_Eng.pdf) (accessed January 7, 2020), p. 2; “Mosul Battle: Hundreds Treated over Toxic Fumes in Iraq,” *BBC News*, October 22, 2016, <http://www.bbc.com/news/world-middle-east-37738667> (accessed January 7, 2020).

<sup>61</sup> See D.R. Davis and H.J. Evans, “The Role of Genetic Damage in Radiation-Induced Cell Lethality,” *Advances in Radiation Biology*, vol. 2 (1966), p. 243; Committee on the Biological Effects of Ionizing Radiation, *Health Effects of Exposure to Low Levels of Ionizing Radiation*: (Washington, D.C.: National Academy of Sciences, 1990), pp. 65–66.

<sup>62</sup> John Gallacher et al., “Symptomatology Attributable to Psychological Exposure to a Chemical Incident: A Natural Experiment,” *Journal of Epidemiology & Community Health*, vol. 61 (2007): 509, accessed January 7, 2020, doi:10.1136/jech.2006.046987.

<sup>63</sup> Kim M. Cecil et al., “Decreased Brain Volume in Adults with Childhood Lead Exposure,” *PLOS Medicine*, vol. 5 (2008), p. 748.

<sup>64</sup> Robert Jacobs, “The Radiation That Makes People Invisible: A Global Hibakusha Perspective,” *Asia-Pacific Journal*, vol. 12 (2014): 1, 6, accessed January 7, 2020, <https://apjif.org/-Robert-Jacobs/4157/article.pdf>.



or families may also be deprived of access to traditional support networks in their communities when they are forced to relocate due to land contamination. As a result, victims can become alienated from society.

TRW can cause financial difficulties. Victims who experience physical or psychological injuries from TRW may no longer be able to support themselves and their families in the ways they have in the past; for example, manual laborers may become too weak to work if they suffer lung damage. TRW can also destroy livelihoods by contaminating the environments, such as farms and fishing grounds, on which people's livelihoods depend. The oil fires of the 1991 Gulf War are a prime example: according to the World Resources Institute, "The oil that did not burn in the oil fires travelled on the wind in the form of nearly invisible droplets resulting in an oil mist or fog that poisoned trees and grazing sheep [and] contaminated fresh water supplies."<sup>65</sup> Environmental damage can further affect communities by harming the tourism industry.

TRW can also present obstacles to participation in cultural life. Indigenous peoples, who have a unique relationship with the natural world, disproportionately experience this type of harm. The environmental destruction from TRW, for example, can displace entire communities from their homelands.<sup>66</sup> When the United States conducted nuclear weapons testing on Bikini Atoll in the Marshall Islands, it relocated the local population to islands that did not allow them to engage in their cultural practices. They could no longer gather fish, fruit, and other food in traditional ways, and mothers could not pass their traditional land on to their children.<sup>67</sup>

TRW can adversely affect humans through both environmental degradation generally and the loss of biodiversity in particular. The lingering effects of defoliants used in Vietnam a half-century ago exemplify the ecological devastation, including to biodiversity, caused by toxic and radiological substances.<sup>68</sup> Biodiversity is essential for healthy ecosystems, central to agricultural and tourism industries, and integral to many cultures. It is also important to human health and well-being.<sup>69</sup> Its loss can increase the dangers from infectious disease and reduce opportunities for sustainable development.<sup>70</sup> For example, the destruction of

<sup>65</sup> Ryan Chilcote, "Kuwait Still Recovering from Gulf War Fires," *CNN*, January 3, 2003, <http://www.cnn.com/2003/WORLD/meast/01/03/sproject.iq.kuwait.oil.fires/> (accessed January 7, 2020) (quoting Jonathan Lash of the World Resources Institute).

<sup>66</sup> See Jack Niedenthal, "Paradise Lost—For the Good of Mankind," *Guardian*, August 6, 2002, <https://www.theguardian.com/travel/2002/aug/06/travelnews.nuclearindustry.environment> (accessed January 7, 2020). Uranium mining also resulted in the displacement of indigenous communities. See "Nuclear War: Uranium Mining and Nuclear Tests on Indigenous Lands," *Cultural Survival Quarterly Magazine*, September 1993, <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/nuclear-war-uranium-mining-and-nuclear-tests-indigenous> (accessed January 7, 2020).

<sup>67</sup> UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, Calin Georgescu, A/HRC/21/48/Add.1, September 3, 2012, [https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-48-Add1\\_en.pdf](https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-48-Add1_en.pdf) (accessed January 7, 2020), para. 33.

<sup>68</sup> Jan Banout et al., "Agent Orange Footprint Still Visible in Rural Areas of Central Vietnam," *Journal of Environmental and Public Health*, vol. 2014 (2014): 1, 2, accessed January 7, 2020, doi:10.1155/2014/528965. Wayne Dwernychuk of the Hatfield Group has noted that "[t]he loss of a significant proportion of southern Vietnam's forest cover triggered a number of related effects. For example, loss of timber led to reduced sustainability of ecosystems, decreases in the biodiversity of plants and animals, poorer soil quality, increased water contamination, heavier flooding and erosion, increased leaching of nutrients and reductions in their availability, invasions of less desirable plant species (primarily woody and herbaceous grasses), and possible alterations of both macro- and microclimates." "The Chemical Scythe," *Agent Orange Record*, [https://web.archive.org/web/20190415143303/http://www.agentorangerecord.com/impact\\_on\\_vietnam/environment/defoliation/](https://web.archive.org/web/20190415143303/http://www.agentorangerecord.com/impact_on_vietnam/environment/defoliation/) (accessed January 7, 2020).

<sup>69</sup> UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/34/49, January 19, 2017, para. 65 ("Biodiversity is necessary for ecosystem services that support the full enjoyment of a wide range of human rights, including the rights to life, health, food, water and culture.")

<sup>70</sup> Convention on Biological Diversity, "Health and Biodiversity," <https://www.cbd.int/health/> (accessed January 7, 2020).

forests by toxic substances may increase soil erosion and the likelihood of floods.<sup>71</sup> In so doing, it may heighten the risk of malaria for people living in the area.<sup>72</sup>

Principle 4 concludes its list with "substantial impairment of the realization of victims' human rights." This broad category of harm often overlaps with those already discussed. Contamination of the environment may, inter alia, undermine the rights of indigenous peoples to participate in their cultures and practice their religions.<sup>73</sup> Numerous other human rights, however, may be impaired less directly. For example, physical injuries attributable to TRW may infringe on the right to vote because they hinder victims' ability to reach a polling place,<sup>74</sup> or a parent's loss of livelihood may interfere with the right to education if it requires a child to drop out of school and work to support his or her family.<sup>75</sup>

### Precedent

In its non-exhaustive list of harms that victim assistance programs should address, Principle 4 borrows heavily from humanitarian disarmament treaties. The Principle also looks to human rights law, environmental law, and compensation programs to identify other types of harm particularly relevant to TRW.

Principle 4's list begins with health effects, social marginalization, and economic loss. Humanitarian disarmament treaties have explicitly and implicitly identified these forms of harm as warranting assistance. The Convention on Cluster Munitions defines "victims" as those who have "been killed or suffered physical or psychological injury, economic loss, [and] social marginalization" caused by cluster munitions.<sup>76</sup> The Mine Ban Treaty and the TPNW do not include a specific definition of victims, but the types of assistance they identify suggest a focus on the same types of harms. For example, the TPNW calls for medical care, psychological support, and measures for social and economic inclusion.<sup>77</sup>

Principle 4 also acknowledges that TRW can interfere with participation in cultural life. International human rights law and principles protect cultural rights. Under the ICESCR, states must recognize the universal right "[t]o take part in cultural life."<sup>78</sup> The Committee on Economic, Social and Cultural Rights, a body of independent experts that interprets and monitors the ICESCR, held that this obligation has two components: first, states are required to abstain from interfering with the right, and second, states must take "positive action" to protect the right, such as "ensuring preconditions for participation [and] facilitation

<sup>71</sup> Corey J. A. Bradshaw et al., "Global Evidence that Deforestation Amplifies Flood Risk and Severity in the Developing World," *Global Change Biology* 13 (2007): 2379, 2386–90, accessed January 11, 2019, doi: 10.1111/j.1365-2486.2007.01446.x.

<sup>72</sup> See, for example, Ross Boyce et al., "Severe Flooding and Malaria Transmission in the Western Ugandan Highlands: Implications for Disease Control in an Era of Global Climate Change," *Journal of Infectious Disease* 214 (2016): 1403–1410, doi:10.1093/infdis/jiw363.

<sup>73</sup> See ICESCR, art. 15(1)(a); ICCPR, art. 18(1).

<sup>74</sup> See UN Human Rights Committee, General Comment No. 25: The Right to Participate in Public Affairs, Voting Rights and the Right of Equal Access to Public Service (Article 25), CCPR/C/21/Rev.1/Add.7, August 27, 1996, <https://undocs.org/CCPR/C/21/Rev.1/Add.7> (accessed January 7, 2020), para. 11 (explaining that the right to vote under the ICCPR requires states to "take effective measures to ensure that all persons entitled to vote are able to exercise that right").

<sup>75</sup> See ICESCR, art. 13; see also UN Committee on Economic, Social and Cultural Rights, General Comment No. 11: Plans of Action for Primary Education (Article 14 of the International Covenant on Economic, Social and Cultural Rights), E/C.12/1999/4, May 10, 1999, <http://undocs.org/en/E/C.12/1999/4> (accessed January 7, 2020), para. 6 (noting that the compulsory element of a state's obligation to provide primary education means that neither parents nor the state "are entitled to treat as optional the decision as to whether [a] child should have access to primary education").

<sup>76</sup> Convention on Cluster Munitions, art. 2(1).

<sup>77</sup> TPNW, art. 6(1).

<sup>78</sup> ICESCR, art. 15(1)(a).



and promotion of cultural life.”<sup>79</sup> Thus, where TRW create obstacles to participation in cultural life, states should endeavor to eliminate those obstacles.

Cultural rights are particularly important for indigenous peoples. The UN Declaration on the Rights of Indigenous Peoples states that “[i]ndigenous peoples have the right to practise and revitalize their cultural traditions and customs.”<sup>80</sup> The declaration also recognizes the land rights of indigenous peoples, which may be abridged when TRW makes land unusable and uninhabitable.<sup>81</sup> The 1989 Indigenous and Tribal Peoples Convention recognizes the link between indigenous peoples’ cultures and land, obliging states parties to “respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands or territories, or both.”<sup>82</sup> The convention further requires states parties to adopt “[s]pecial measures” to “safeguard[] the persons, . . . cultures and environment of the peoples concerned.”<sup>83</sup> While humanitarian disarmament treaties have not focused on cultural rights, the TPNW preamble recognizes the “disproportionate impact of nuclear weapon-activities on indigenous peoples.”<sup>84</sup>

Environmental treaties, including the 2010 Nagoya Protocol to the Convention on Biological Diversity and the 2015 Paris Agreement on climate change, have noted the relationship between the environment and the culture of “local communities” as well as indigenous peoples.<sup>85</sup> The Nagoya Protocol’s preamble notes:

[T]he interrelationship between genetic resources and traditional knowledge, their inseparable nature for indigenous and local communities, the importance of the traditional knowledge for the conservation of biological diversity and the sustainable use of its components, and for the sustainable livelihoods of these communities.<sup>86</sup>

The importance of the environment for local communities has also been raised in the TRW context. For example, during a UN debate about the ILC’s work on PERAC, Micronesia explained that local communities may have connections to the natural environment similar to indigenous peoples.<sup>87</sup>

Principle 4 further highlights human harm resulting from environmental degradation and a loss of biodiversity. International organizations have noted the interrelationship between

<sup>79</sup> UN Committee on Economic, Social and Cultural Rights, General Comment No. 21: Right of Everyone to Take Part in Cultural Life (art. 15, para. 1(a) of the ICESCR), E/C.12/GC/21, December 21, 2009, <https://www.refworld.org/docid/4ed35bae2.html> (accessed January 7, 2020), para. 6.

<sup>80</sup> UN Declaration on the Rights of Indigenous Peoples, art. 11(1).

<sup>81</sup> Ibid., art. 10 (“Indigenous peoples shall not be forcibly removed from their lands or territories.”).

<sup>82</sup> International Labour Organization (ILO) Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries, adopted June 27, 1989, 1650 U.N.T.S. 383, entered into force September 5, 1991, art. 13(1).

<sup>83</sup> Ibid., art. 4(1).

<sup>84</sup> TPNW, pmbl.

<sup>85</sup> Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya Protocol), adopted October 29, 2010, C.N.115.2011.TREATIES-7, entered into force October 12, 2014; Paris Agreement, adopted December 12, 2015, C.N.63.2016.TREATIES-XXVII.7.d, entered into force November 4, 2016, pmbl. (encouraging states parties to consider their obligations on “the rights of indigenous peoples [and] local communities” in taking measures to address climate change).

<sup>86</sup> Nagoya Protocol, pmbl.

<sup>87</sup> Permanent Mission of the Federated States of Micronesia to the United Nations, “Statement to the 73rd Session of the United Nations General Assembly, 29th Meeting of the Sixth Committee, Agenda Item 82,” October 31, 2018, <http://statements.unmeetings.org/media2/20305245/micronesia-federated-states- of-82-cluster-3.pdf> (accessed January 7, 2020), p. 2.

environmental degradation and human health and livelihoods. For example, the UNEA’s Resolution 3/1 notes:

[T]he long-term social and economic consequences of the degradation of the environment and natural resources resulting from pollution caused by armed conflict or terrorism, which include, inter alia, the loss of biodiversity, the loss of crops or livestock, and lack of access to clean water and agricultural land, and the negative and sometimes irreversible impacts on ecosystem services and their impact on sustainable recovery, contributing to further forced displacement related to environmental factors.<sup>88</sup>

In 2017, the UN special rapporteur on human rights and the environment confirmed that biodiversity is necessary for ecosystem services that support the full enjoyment of human rights, including the rights to life, health, food, water, and culture.<sup>89</sup> The rapporteur noted that to prevent infringement of these rights, states have a general obligation to protect ecosystems and biodiversity.<sup>90</sup>

Compensation programs have also recognized environmental harms. Following the Iraqi invasion and occupation of Kuwait in 1990 and 1991, the UN Security Council created a commission to process claims for compensation as a result of Iraq’s unlawful acts. The UN Compensation Commission (UNCC) granted awards for environmental harm and depletion of natural resources,<sup>91</sup> including environmental damage that reduced biodiversity.

Principle 4 concludes its list of harms with impairments to victims’ realization of their human rights. In recognition of the potential human rights impacts of cluster munitions and their remnants, the Convention on Cluster Munitions explicitly incorporated this type of harm into its definition of victims.<sup>92</sup> Norms on access to justice also support identifying victims based on impairment of their rights. For example, the Basic Principles of Justice for Victims of Crime and Abuse of Power, adopted by the UN General Assembly in 1985, define “victims” as “persons who . . . have suffered harm, including . . . substantial impairment of their fundamental rights.”<sup>93</sup> International human rights treaties enshrine rights that may be impaired by TRW exposure. For example, the ICCPR guarantees all citizens the right to

<sup>88</sup> UN Environment Assembly, Resolution 3/1.

<sup>89</sup> UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/34/49, January 19, 2017, para. 5. Ecosystem services include: “provisioning services such as food, water, timber and fiber, which are necessary for basic material needs”; “[r]egulating services such as purification of water and protection against erosion”; and “cultural services to the many people around the world whose religious and spiritual values are rooted in nature.” Ibid., para. 6. The formal title of the special rapporteur on human rights and the environment is special rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment.

<sup>90</sup> Ibid., para. 5.

<sup>91</sup> See, for example, UN Compensation Commission Governing Council, “Report and Recommendations Made by the Panel of Commissioners Concerning the Second Instalment of ‘F4’ Claims,” S/AC.26/2002/26, October 3, 2002, <https://uncc.ch/sites/default/files/attachments/documents/r2002-26.pdf> (accessed January 7, 2020), paras. 66–72 (awarding compensation to Iran for costs involved in responding to oil spills in the Persian Gulf); UN Compensation Commission Governing Council, “Report and Recommendations Made by the Panel of Commissioners Concerning the Fifth Instalment of ‘F4’ Claims,” S/AC.26/2005/10, June 30, 2005, <https://uncc.ch/sites/default/files/attachments/documents/r2005-10.pdf> (accessed January 7, 2020), paras. 442–456 (approving compensation award for Kuwait based on damage to shoreline resources that reduced the “quantity and quality of services provided by different shoreline habitats,” *ibid.*, para. 442).

<sup>92</sup> Convention on Cluster Munitions, art. 2(1).

<sup>93</sup> UN General Assembly, “Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power,” Resolution 40/34, A/Res/40/34, November 29, 1985, <http://undocs.org/A/RES/40/34> (accessed January 7, 2020), annex, para. 1.

participate in public affairs and the right to vote.<sup>94</sup> The ICESCR obliges states parties to work progressively towards the full realization of, inter alia, their citizens' rights to work, physical and mental health, and education.<sup>95</sup> While these obligations are generally applicable, states should account for the ways that TRW victims in particular might be prevented from realizing their human rights.

### Principle 5: Types of Victim Assistance

Victim assistance may include but is not limited to: medical care, rehabilitation, and psychological support; provision for victims' social and economic inclusion; acknowledgment of harm; measures to facilitate participation in cultural life; remediation of contaminated environments; access to accurate and comprehensive information regarding the harms and risks associated with TRW; and measures to ensure victims can fully realize their human rights.

#### Discussion

Principle 5 lays out several categories of assistance. The breadth of its non-exhaustive list reflects the wide range of harms that should be addressed. A victim assistance regime should assess the needs of the people affected and, in line with Principle 12, meaningfully engage with victims in order to ensure none of their needs are overlooked. The types of assistance should be tailored to specific situations and may be provided in combination.

Physical and psychological injuries can be treated through the provision of medical care, rehabilitation, and psychological support. In addition, environmental remediation can help address the underlying causes of health problems; removing or containing toxic and radiological substances can decrease ongoing exposure to TRW, thus reducing suffering from existing conditions, such as asthma, and preventing the emergence of new diseases over time. The provision of information about the harms and risks associated with TRW can help victims make better-informed choices to protect their own health.

Socioeconomic consequences can be mitigated through measures to provide for victims' social and economic inclusion. For example, vocational training can prepare victims for new kinds of jobs if they are unable to return to their old ones. Environmental remediation can help enable victims to resume farming, fishing, and other forms of livelihood. The provision of information to the public may counter myths that lead to discrimination and ostracization, such as misconceptions that victims are contagious or "diseased," and help others understand the challenges victims face. Memorialization and other types of public acknowledgment of harm can honor victims and help ensure they receive respect from the societies in which they live.

Obstacles to participation in cultural life can be overcome through environmental remediation and cultural protection measures. Ideally, remediation could restore all or part of a community's land so that its members could return. When that is impossible, states should facilitate victims'

<sup>94</sup> ICCPR, art. 25. While states can temporarily derogate from this obligation in times of national emergency, they can only do so to the extent required by the situation and for such time as the emergency persists. *Ibid.*, art. 4(1).

<sup>95</sup> ICESCR, arts. 6, 12, 13.

participation in culture in new places or new ways. Assistance could also include support for educational programs to preserve languages or pass traditions on to younger generations.

Other adverse impacts of environmental degradation and loss of biodiversity can be best addressed directly through environmental remediation. Even though it is often impossible to return an ecosystem to its pre-contamination state, efforts in that direction can still contribute to the re-establishment of environmental health and the restoration of biodiversity.<sup>96</sup>

Finally, human rights abridged directly or indirectly by the presence of TRW can be addressed through a variety of measures. For example, if individuals suffer physical or psychological injury, states should ensure they have health care services that meet the standards of availability, accessibility, acceptability, and quality, which are required under the right to health.<sup>97</sup> States could fulfill victims' right to vote by facilitating absentee voting.<sup>98</sup> Providing economic support to families experiencing a significant loss of income could help children return to school.<sup>99</sup>

#### Precedent

Principle 5 follows the model of humanitarian disarmament treaties in enumerating specific forms of assistance that correspond to the harm victims experience. Its list of assistance types draws from these treaties as well as human rights law and international programs designed to manage harmful effects of armed conflict.

Humanitarian disarmament law identifies several types of victim assistance, including health care and measures for socioeconomic inclusion. The Convention on Cluster Munitions and the TPNW call for "medical care, rehabilitation and psychological support, [and assistance to] provide for [victims'] social and economic inclusion."<sup>100</sup> The Mine Ban Treaty similarly highlights measures for the "care and rehabilitation, and social and economic reintegration, of mine victims."<sup>101</sup> The UN Policy on Victim Assistance in Mine Action suggests that victim assistance should include a number of components, including "physical and other rehabilitation . . . as well as assistive and mobility devices" and "social and economic inclusion, inclusive education, as well as access to basic services and disability awareness."<sup>102</sup>

International human rights and humanitarian law have recognized the importance of acknowledging the harm victims experience. For example, the Basic Principles and Guidelines on the Right to a Remedy and Reparation call on states to provide reparations to victims of gross violations of international human rights law or serious violations of international humanitarian law. The document includes "satisfaction" in its list of five types of reparations. Satisfaction

<sup>96</sup> Even where biodiversity is able to be restored, it is frequently different than the biodiversity that existed before. See, for example, John Cairns, Jr., "Increasing Diversity by Restoring Damaged Ecosystems," in *Biodiversity*, ed. E.O. Wilson and Frances M. Peter (Washington, D.C.: National Academy Press, 1988), p. 333 (noting that it is "often difficult or impossible" to restore ecosystems to their original condition, but that alternative ecosystems might be "ecologically superior to the damaged condition").

<sup>97</sup> See ICESCR, art. 12(1); UN Committee on Economic, Social and Cultural Rights, General Comment No. 14: The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social and Cultural Rights), August 11, 2000, E/C.12/2000/4, <https://undocs.org/E/C.12/2000/4> (accessed January 7, 2020), para. 12.

<sup>98</sup> See ICCPR, art. 25(b); UN Human Rights Committee, General Comment No. 25: The Right to Participate in Public Affairs, Voting Rights and the Right of Equal Access to Public Service, para. 11.

<sup>99</sup> See ICESCR, art. 13; UN Committee on Economic, Social and Cultural Rights, General Comment No. 11: Plans of Action for Primary Education, para. 6.

<sup>100</sup> Convention on Cluster Munitions, art. 5(2); TPNW, art 6(1).

<sup>101</sup> Mine Ban Treaty, art. 6(3).

<sup>102</sup> United Nations, "The United Nations Policy on Victim Assistance in Mine Action," 2016, para. 21.

encompasses, *inter alia*, measures to disclose the truth of what happened to victims, publicly apologize, including through “acknowledgment of the facts,” and commemorate and offer tributes to affected individuals.<sup>103</sup>

The Committee on Economic, Social and Cultural Rights has described actions states can take to fulfill their positive obligation to protect the right to participate in cultural life. Those actions include measures to promote availability, accessibility, acceptability, adaptability, and the ability to realize other human rights in culturally appropriate ways.<sup>104</sup> For example, states can adopt “laws, policies, strategies, programmes and measures” that protect the availability of cultural goods and “shared open spaces essential to cultural interaction, such as . . . the flora and fauna . . . which give nations their character and biodiversity.”<sup>105</sup>

The TPNW’s remediation provision is the first instance of an environmental remediation obligation in a humanitarian disarmament treaty, although it had precursors in prior treaties. Article 6 of the TPNW calls on states to “take necessary and appropriate measures towards the environmental remediation” of areas contaminated by nuclear weapon use or testing.<sup>106</sup> Notably, the remediation obligation appears in the same article as the victim assistance obligation. This placement is appropriate as environmental remediation can help alleviate human harms and can thus be viewed in part as a form of victim assistance. The Mine Ban Treaty and the Convention on Cluster Munitions both have analogous obligations, requiring states to remove antipersonnel landmines and cluster munition remnants from the environment.<sup>107</sup> While these provisions are separate from victim assistance ones, such clearance can similarly serve to prevent human suffering.

Environmental remediation has also been a component of international programs that help states to recover from the effects of armed conflict. For example, UNEP and the Iraqi government worked together in 2004 to determine the level of threat to humans, wildlife, and the environment from contamination in Iraq after a “decade of instability and conflict.”<sup>108</sup> In 2018, UNEP launched a training program to help Iraqi government officials develop skills in assessing and cleaning up oil-contamination created during the conflict with the Islamic State (ISIS).<sup>109</sup> Similar environmental remediation programs have been undertaken by UN agencies in the Balkans and Sierra Leone.<sup>110</sup> Additionally, the UNCC awarded funding for remediation, including prevention and cleanup of pollution and the provision of labor and supplies.<sup>111</sup> This assistance was provided directly to states, which are the trustees of the environment on behalf of their citizens and victims.

<sup>103</sup> UN General Assembly, “Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law,” paras. 18, 22.

<sup>104</sup> UN Committee on Economic, Social and Cultural Rights, General Comment No. 21: Right of Everyone to Take Part in Cultural Life, para. 16.

<sup>105</sup> *Ibid.*

<sup>106</sup> TPNW, art. 6(2).

<sup>107</sup> Convention on Cluster Munitions, art. 4(1); Mine Ban Treaty, art. 5(1).

<sup>108</sup> “UNEP and Iraqi Environment Ministry to Assess Key Polluted Sites,” UNEP press release, September 14, 2004, <https://reliefweb.int/report/iraq/unep-and-iraqi-environment-ministry-assess-key-polluted-sites> (accessed January 7, 2020).

<sup>109</sup> UN Environment Programme, “Iraq Officials Trained in Assessing Oil Contaminated Sites from the ISIL Conflict,” September 27, 2018, <https://www.unenvironment.org/news-and-stories/press-release/iraq-officials-trained-assessing-oil-contaminated-sites-isil> (accessed January 7, 2020).

<sup>110</sup> UN Development Programme, *Strengthening Capacities in the Western Balkans Countries to Mitigate Environmental Problems through Mitigation of High Priority Hot Spots*, September 2007, p. ii; UN Environment Programme, “Sierra Leone,” 2019, <https://www.unenvironment.org/explore-topics/disasters-conflicts/where-we-work/sierra-leone> (accessed January 15, 2020).

<sup>111</sup> See, for example, UN Compensation Commission Governing Council, “Report and Recommendations Made by the Panel of Commissioners Concerning the Second Instalment of ‘F4’ Claims,” October 3, 2002, S/AC.26/2002/26, paras. 66–72.

Humanitarian disarmament law and practice require states to inform victims and potential victims of dangers posed by remnants of war. Under the Mine Ban Treaty, states parties “in a position to do so” are required to provide assistance for mine awareness programs.<sup>112</sup> Adopting stronger language, the Convention on Cluster Munitions removes the qualifier and obliges states parties to “[c]onduct risk education to ensure awareness among civilians living in or around cluster munition contaminated areas of the risks posed by such remnants.”<sup>113</sup> Like the access to information called for in Principle 5, risk education and mine awareness programs are designed to protect individuals, families, and communities from harm.<sup>114</sup>

Finally, Principle 5 builds on legal precedent when it calls for “measures to ensure victims can fully realize their rights.” Consistent with the definition in the Convention on Cluster Munitions, Principle 4 describes victims as including those that suffer a “substantial impairment of the realization of their rights.” Principle 5 makes clear that states should take measures to protect the rights of TRW victims. These measures, which can be informed by international human rights law as well as humanitarian disarmament law, may go beyond other listed types of assistance.

<sup>112</sup> Mine Ban Treaty, art. 6(3).

<sup>113</sup> Convention on Cluster Munitions, art. 4(2)(e).

<sup>114</sup> As the UN Policy on Victim Assistance in Mine Action explains, risk education seeks “to reduce the risk of injury . . . by raising awareness of men, women, and children in accordance with their different vulnerabilities, roles, and needs, and promoting behavioral change including public information disseminations, [and] education and training.” United Nations, “The United Nations Policy on Victim Assistance in Mine Action,” 2016, annex, p. ii.

## Framework of Shared Responsibility

### Principle 6: Responsibility

States should provide assistance to TRW victims in areas under their jurisdiction or control.

Other states, especially states whose actions generated TRW, should provide financial, material, technical, and/or other assistance to “affected states,” i.e., those with TRW victims in areas under their jurisdiction or control, to help them meet their victim assistance responsibilities.

#### Discussion

Principle 6 explains the roles of different actors with regard to victim assistance. It creates a framework of shared responsibility. The “affected state,” i.e., the state that has jurisdiction or control over areas in which TRW victims are located, should play the lead role in assisting victims in those areas. Other states should support the affected state so that it can fully implement its assistance programs.

To avoid potential gaps, Principle 6 calls on the affected state to address the needs of victims in areas under its jurisdiction or control. Persons within a state’s territory fall under that state’s jurisdiction. The control aspect is particularly relevant during occupation, where a state establishes and can exercise authority over the territory of another state.<sup>115</sup> Recognizing the link between environmental and human harm during occupation, the ILC’s 2019 Draft Principles on PERAC state that “[a]n Occupying Power shall take appropriate measures to prevent significant harm to the environment of the occupied territory that is likely to prejudice the health and well-being of the population of the occupied territory.”<sup>116</sup>

Principle 6 charges affected states with leading victim assistance efforts for a number of reasons. First, assigning responsibility to affected states is a pragmatic approach. Affected states are in the best position to assist because of their proximity to the victims. This closeness makes it easier to ensure victim engagement in the process (as discussed under Principle 12), which in turn helps affected states gain a more complete understanding of their needs. Physical proximity also facilitates the delivery of aid to individuals, families, and communities.

Second, the approach respects an affected state’s sovereignty by reaffirming its authority over activities within its borders. It also acknowledges state agency because it encourages affected states to set domestic assistance policies while empowering them to seek outside support.

<sup>115</sup> See Hague Convention (IV) respecting the Laws and Customs of War on Land and its Annex: Regulations concerning the Laws and Customs of War on Land, adopted October 18, 1907, entered into force January 26, 1910, annex, art. 42 (“Territory is considered occupied when it is actually placed under the authority of the hostile army. The occupation extends only to the territory where such authority has been established and can be exercised.”). For example, when US and UK armed forces displaced the Iraqi government in the 2000s, those states exercised control over Iraqi territory for a period of time. See Eyal Benvenisti and Guy Keinan, “The Occupation of Iraq: A Reassessment,” *International Law Studies*, vol. 86 (2010), pp. 263, 266.

<sup>116</sup> International Law Commission, “Report of the International Law Commission, Seventy-First Session,” A/74/10, 2019, p. 213.

Third, the approach accords with international legal precedent. As discussed below, it draws directly from an approach used in humanitarian disarmament and articulated in the Convention on Cluster Munitions. In addition, international human rights law obliges states to ensure that persons in their territory enjoy their human rights, although, in that legal regime, the obligation extends to persons “subject to [a state’s] jurisdiction.”<sup>117</sup> Victim assistance, which seeks to advance victims’ realization of their human rights, provides one avenue for affected states to comply with this obligation.

Affected states do not, however, bear sole responsibility for victim assistance. Principle 6 calls on all other states to provide financial, material, technical, and/or other support to affected states, which are disproportionately developing countries and thus may lack resources or expertise.<sup>118</sup> This support can take a variety of forms, ranging from money to equipment to advice to human resources. Because of the flexibility, most states should be able to contribute in some way.

While Principle 6 calls on all states to contribute, states whose actions generated TRW hold a particular responsibility to provide support to the affected state. They have a moral and ethical responsibility to the country and its victims, regardless of whether their conduct was unlawful. Thus, they should be even more engaged in victim assistance than other non-affected states.

States may provide their support directly to the affected state or through relevant organizations. Many international, regional, and nongovernmental organizations have mandates to aid those facing the consequences of armed conflict and environmental degradation. For example, UNEP aims to “prevent and reduce the impacts” of conflict-related harm and “help post-crisis countries strengthen environmental management.”<sup>119</sup> Organizations with expertise in the technical and logistical aspects of helping victims can more efficiently coordinate the delivery of assistance.

To bolster their victim assistance efforts, affected and donor states can adopt national measures to exact contributions from non-state actors that generate TRW, such as private military companies or non-state armed groups.<sup>120</sup> A state could, for example, require such actors to pay a tax or contribute to a fund to support an affected state’s victim assistance programs. Furthermore, Principle 6 does not preclude victims from pursuing other forms of redress from non-state actors. States should ensure affected individuals have access to

<sup>117</sup> See, for example, ICCPR, art. 2(1); UN Human Rights Committee, General Comment No. 31 [80]: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, CCPR/C/21/Rev.1/Add. 13, May 26, 2004, para. 10 (discussing Article 2(1) of the ICCPR). Adopting a similar approach to clearing the environment of remnants of war, the ILC provisionally adopted a principle requiring parties to a conflict to “seek to remove or render harmless toxic and hazardous remnants of war under their jurisdiction or control.” International Law Commission, “Report of the International Law Commission, Seventy-First Session,” A/74/10, 2019, p. 214.

<sup>118</sup> “UPDATED: Mapped—A World at War,” *The New Humanitarian*, last modified April 4, 2017, <https://www.irinnews.org/maps-and-graphics/2017/04/04/updated-mapped-world-war> (accessed January 7, 2020).

<sup>119</sup> UNEP, “Disasters and Conflicts: What We Do,” <https://www.unenvironment.org/explore-topics/disasters-conflicts/what-we-do> (accessed January 7, 2020).

<sup>120</sup> Non-state armed groups and private military companies play increasingly prominent roles in armed conflict. See Kendra Dupuy et al., “Trends in Armed Conflict, 1946-2016,” February 2017, <https://reliefweb.int/sites/reliefweb.int/files/resources/Dupuy%20et%20al%20-%20Trends%20in%20Armed%20Conflict%201946-2016%20Conflict%20Trends%202017.pdf> (accessed January 7, 2020), p. 2; see also Peter W. Singer, “Outsourcing War,” *Brookings*, March 1, 2005, <https://www.brookings.edu/articles/outsourcing-war/> (accessed January 7, 2020); Alex Casendino, “Soldiers of Fortune: The Rise of Private Military Companies and their Consequences on America’s Wars,” *Berkeley Political Review*, October 25, 2017, <https://bpr.berkeley.edu/2017/10/25/soldiers-of-fortune-the-rise-of-private-military-companies-and-their-consequences-on-americas-wars/> (accessed January 7, 2020).



national grievance mechanisms to obtain remedies for abuses by businesses and other non-state actors.<sup>121</sup>

### Precedent

In developing its shared responsibility framework, Principle 6 draws on humanitarian disarmament law and policy as well as international human rights law and business and human rights principles.

The Convention on Cluster Munitions tasks a state party that has “victims in areas under its jurisdiction or control” with leading assistance efforts.<sup>122</sup> Principle 6 describes this state as the “affected state.” While the Mine Ban Treaty does not assign primary responsibility to the affected state, its implementation plans emphasize the affected state’s crucial role. The Nairobi Action Plan, adopted at the Mine Ban Treaty’s First Review Conference in 2004, describes victim assistance as “first and foremost” the responsibility “of those whose citizens suffer . . . mine incidents.”<sup>123</sup> The Maputo Action Plan, adopted at the treaty’s 2014 Third Review Conference, furthered this approach, describing victim assistance as primarily the responsibility of states parties with victims in areas under their jurisdiction or control.<sup>124</sup> The TPNW also assigns responsibility to affected states although it describes them as states parties with victims “under [their] jurisdiction.”<sup>125</sup>

Humanitarian disarmament goes on to place the affected state’s obligations in a framework of shared responsibility. Under the Convention on Cluster Munitions and the TPNW, affected states parties are entitled to “seek and receive assistance” from other states parties.<sup>126</sup> Other states parties “in a position to do so shall provide assistance” to the affected state or victims directly.<sup>127</sup> According to both treaties, assistance can take a variety of forms, including “technical, material and financial assistance.”<sup>128</sup> Similarly, all states parties to the Mine Ban Treaty have the “right to seek and receive assistance . . . from other States” to fulfill their obligations.<sup>129</sup>

International human rights law, like humanitarian disarmament law, supports assigning responsibility to affected states and encouraging international cooperation. Under the ICCPR, each “State Party . . . undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized” in the covenant.<sup>130</sup> The ICCPR establishes the principle that states are responsible for guaranteeing the rights of people within their territory. Article 2 of the ICESCR requires states parties to “undertake[] to take steps, individually and through international assistance and co-operation” to ensure the realization of economic, social, and cultural rights.<sup>131</sup>

<sup>121</sup> The UN special representative of the secretary-general on the issue of human rights and transnational corporations and other business enterprises has emphasized the importance of grievance mechanisms. See UN Office of the High Commissioner of Human Rights, *Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework* (2011), HR/PUB/11/04, [https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_EN.pdf](https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf) (accessed January 7, 2020), p. 27.

<sup>122</sup> Convention on Cluster Munitions, art. 5(1).

<sup>123</sup> Nairobi Action Plan, para. 5.

<sup>124</sup> Maputo Action Plan, para. 6(a).

<sup>125</sup> TPNW, art. 6(1).

<sup>126</sup> Convention on Cluster Munitions, art. 6(1); TPNW, art. 7(2).

<sup>127</sup> Convention on Cluster Munitions, art. 6(7); TPNW, art. 7(4).

<sup>128</sup> Convention on Cluster Munitions, art. 6(2); TPNW, art. 7(3).

<sup>129</sup> Mine Ban Treaty, art. 6(1, 3).

<sup>130</sup> ICCPR, art. 2(1).

<sup>131</sup> ICESCR, art. 2(1).

The TPNW supports explicitly calling on states that generated TRW to engage in assistance efforts. TPNW Article 7 holds that 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.”<sup>132</sup> At the same time, TPNW clarifies that victim assistance is supplemental to other liability, as the obligation is “[w]ithout prejudice to any other duty or obligation that [the state] may have under international law.”<sup>133</sup>

Principle 6 establishes its shared responsibility framework in part to fill gaps left by liability-based regimes. First, some states reject the position that international environmental law continues to apply during armed conflict.<sup>134</sup> As a result, they could not be held accountable for violating it. Second, international humanitarian law contains a high threshold for the regulation of environmental damage. Many activities that generate TRW are legally permissible under that body of law, meaning that the relevant actor may not be obliged to repair the harm.<sup>135</sup> Third, TRW exposure often results from multiple causes, making it difficult to attribute liability to a single actor. Fourth, processes to obtain compensation for legal wrongs can be time intensive and expensive, while the shared responsibility framework may meet victims’ needs in a more efficient and equitable manner. Nevertheless, the victim assistance measures described in these principles can be complementary to and pursued alongside efforts to obtain legal redress, which also have benefits but are beyond the scope of this report.

Humanitarian disarmament’s shared responsibility framework identifies governmental and nongovernmental organizations as essential partners in assistance programs. Under the TPNW, donor states may provide support through a variety of channels, including the UN system, international or regional organizations, and nongovernmental organizations.<sup>136</sup> The Mine Ban Treaty and the Convention on Cluster Munitions contain similar provisions.<sup>137</sup>

Recent practice reflects the specific role of international and regional organizations in assistance efforts related to the environmental effects of armed conflict. UNEP, for example, has been a leader in assisting with remediation efforts for conflict-related environmental degradation. Between 2003 and 2006, it facilitated a series of activities in Iraq, including environmental monitoring and study, training and equipment transfer to Iraqi authorities, cleanup of contaminated sites, and capacity-building efforts supported by other states.<sup>138</sup> In the aftermath of the conflict with ISIS, UNEP again led assistance efforts, undertaking studies to map oil-contaminated sites that pose health risks to surrounding communities.<sup>139</sup>

<sup>132</sup> TPNW, art. 7(6).

<sup>133</sup> *Ibid.*

<sup>134</sup> See International Law Commission, “Draft Articles on the Effects of Armed Conflicts on Treaties, with Commentaries,” *Yearbook of the International Law Commission* (2011), vol. II, part. 2, p. 127 (describing state submissions during the *Nuclear Weapons* case before the International Court of Justice that evinced a lack of agreement on whether environmental obligations continue to apply during armed conflict).

<sup>135</sup> Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), adopted June 8, 1977, 1125 U.N.T.S. 3, entered into force December 7, 1978, art. 55.

<sup>136</sup> TPNW, art. 7(5).

<sup>137</sup> Mine Ban Treaty, art. 6(3); Convention on Cluster Munitions, art. 6(2).

<sup>138</sup> UN Environment Programme, *UNEP in Iraq: Post-Conflict Assessment, Clean-up and Reconstruction* (Nairobi: UN Environment Programme 2007), pp. 4–6.

<sup>139</sup> “Iraq Officials Trained in Assessing Oil Contaminated Sites from the ISIL Conflict,” UNEP press release, September 27, 2018, <https://www.unenvironment.org/news-and-stories/press-release/iraq-officials-trained-assessing-oil-contaminated-sites-isil> (accessed January 7, 2020). Similarly, after an Israeli missile strike in Lebanon resulted in a massive oil spill in the Mediterranean, a host of states as well as international and regional organizations collectively provided the Lebanese government assistance, including cash contributions, technical assistance, and equipment. UN General Assembly, Report of the Secretary-General, *Oil Slick on Lebanese Shores*, A/62/343, October 24, 2007, <https://undocs.org/A/62/343> (accessed January 7, 2020), annex.

Finally, precedent supports affected states taking national measures to ensure non-state actors contribute to assistance efforts, including through grievance mechanisms. The ILC recognized in its PERAC draft principle on corporate liability that “[s]tates should take appropriate legislative and other measures aimed at ensuring that corporations and other business enterprises operating in or from their territories can be held liable for harm caused by them to the environment.”<sup>140</sup> States should promote access to remedies from non-state armed groups as well as businesses. For example, the peace agreement between the government of Colombia and the Revolutionary Armed Forces of Colombia (FARC) includes reparative sanctions.<sup>141</sup> Members of FARC who appear before a tribunal and admit responsibility for their conduct in relation to the armed conflict may be required to participate in “environmental protection programmes for Forest Reserve Areas,” and “environmental recovery programmes for areas affected by crops used for illicit purposes” during the conflict.<sup>142</sup>

### Principle 7: Exchange of Scientific and Technical Information

States (especially states whose actions generated TRW), international organizations, nongovernmental organizations, and other actors should, to the extent possible, share scientific and technical information with affected states regarding TRW and possible responses.

#### Discussion

States, international organizations, nongovernmental organizations, and other actors should provide scientific and technical information that can help the affected state identify victims, assess needs, develop a response, and deliver assistance. While those actors may have legitimate interests in protecting national security or proprietary commercial secrets, they should make available as much information as possible to expedite and improve the quality of assistance.

States whose actions generated TRW should proactively share relevant information. They often possess valuable knowledge about the particular situation, including the cause of the release, the locations of contaminated sites, the nature of the toxic and radiological substances, and the possible effects of exposure. In some cases, these states have failed to release information about TRW. For example, the United States declined requests to provide GPS coordinates for depleted uranium rounds it used in Iraq. The coordinates became public only after the Dutch organization PAX submitted a freedom of information request to the Dutch government, which had obtained copies of the coordinates from the United States.<sup>143</sup> According to the UN special rapporteur on toxics:

The lack of transparency demonstrated by States regarding the pollution caused by their actions during conflict can impede the identification of

contaminated sites, and thus limit access of affected communities to preventative health care, information on how to reduce risks and other protective measures. . . . Communities affected by military bases and testing of weapons often do not have access to the classified information necessary to ensure an effective remedy for victims of the resulting contamination.<sup>144</sup>

If states that caused the TRW problem voluntarily provided such information at the outset, affected states could more quickly identify environmental threats and potential victims and initiate assistance programs.

Other states may also have expertise to share. They may possess a range of relevant scientific, medical, and technical data. In particular, they may have experience managing TRW in different situations or dealing with the impacts of comparable environmental damage attributable to an accident or natural disaster. These states could share best practices for identifying contaminated sites, preventing the spread of toxic or radiological substances, treating the health effects of such substances, and remediating the environment.

International organizations and nongovernmental organizations may have specialized knowledge—drawn from substantive expertise or practical experience—that can improve an affected state’s ability to assist victims. International organizations can share technical advice and support capacity building through well-established mechanisms in the wake of TRW incidents. For example, UN agencies and other international organizations may respond to requests for information that affected states make through UN channels or relevant international agreements such as the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.<sup>145</sup> Organizations or individuals present in affected regions during an armed conflict, such as humanitarian aid groups or “civilian scientists,” may also be able to help identify contaminated areas, victims of TRW, and victims’ needs by sharing data they have collected.<sup>146</sup>

Finally, private companies may possess relevant information because TRW can result from the destruction of infrastructure or facilities they own. If a chemical plant is damaged in an airstrike, for example, its company should know which types of substances were stored in the facility and might seep into nearby soil. Whether or not their facilities are affected, companies may have information about the dangers of exposure to a contaminant and practices for safe handling and cleanup. Providing such details to the affected state would assist it in understanding the nature of the problem and developing assistance strategies.

#### Precedent

Principle 7 draws on humanitarian disarmament and international environmental law to encourage relevant actors to share technical and scientific information regarding TRW with affected states.

<sup>140</sup> International Law Commission, “Report of the International Law Commission, Seventy-First Session,” A/74/10, 2019, p. 212.

<sup>141</sup> Final Agreement to End the Armed Conflict and Build a Stable and Lasting Peace between the Government of Colombia and the Revolutionary Armed Forces of Colombia, signed November 24, 2016, <http://especiales.presidencia.gov.co/Documents/20170620-dejacion-armas/acuerdos/acuerdo-final-ingles.pdf>, pp. 176–77.

<sup>142</sup> *Ibid.*, pp. 164, 184.

<sup>143</sup> Rob Edwards, “US Fired Depleted Uranium at Civilian Areas in 2003 Iraq War, Report Finds,” *Guardian*, June 19, 2014, <https://www.theguardian.com/world/2014/jun/19/us-depleted-uranium-weapons-civilian-areas-iraq> (accessed January 7, 2020).

<sup>144</sup> UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/36/41, July 20, 2017, para. 110.

<sup>145</sup> See, for example, Basel Convention, “Overview,” <http://www.basel.int/Implementation/TechnicalAssistance/tabid/1285/Default.aspx> (accessed January 7, 2020).

<sup>146</sup> For more information on the benefits of civilian science in the TRW context, see Doug Weir, Dan McQuillan, and Robert A. Francis, “Civilian Science: The Potential of Participatory Environmental Monitoring in Areas Affected by Armed Conflict,” *Environmental Monitoring and Assessment*, 191 (2019): 618, accessed January 7, 2020, doi:10.1007/s10661-019-7773-9.

Humanitarian disarmament law and policy promote robust information sharing by states, international organizations, nongovernmental organizations, and private actors. Article 4(4) of the Convention on Cluster Munitions “strongly encourage[s]” states parties to provide information on the cluster munitions they used even before the convention took effect. This paragraph supports the analogous proposition of encouraging states that generate TRW to share information.

Looking beyond the responsibility of user states, the Mine Ban Treaty and the Convention on Cluster Munitions grant states parties “the right to participate in the fullest possible exchange of . . . scientific and technological information.”<sup>147</sup> Under the Convention on Cluster Munitions, states parties can also request that international and nongovernmental organizations share information and expertise, including the location, nature, and extent of cluster munition remnants in an area and data required to reduce risks.<sup>148</sup> The Dubrovnik Action Plan, adopted by that convention’s First Review Conference in 2015, similarly calls on international organizations and the private sector to “identify and mobilise the necessary technical, material and financial resources” and to “[d]evelop, share and promote cost-effective, innovative and successful practices of cooperation and assistance.”<sup>149</sup>

Information sharing on hazardous activities and toxic substances is also a well-established international environmental norm. For example, the Basel Convention requires immediate notification after an accident that may affect human health or the environment.<sup>150</sup> The 2001 ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities similarly encourage states to provide information related to hazardous activities, beginning when the hazardous activity occurs and continuing as long as appropriate.<sup>151</sup> While these obligations and norms are limited to transboundary harm, they are nonetheless instructive even where environmental harm is limited to one country. The UN General Assembly has also called for states that have used depleted uranium to provide information to identify and help manage contaminated sites.<sup>152</sup>

Finally, Principle 7 mirrors the ILC’s draft principles on PERAC. According to Draft Principle 24, “[s]tates and relevant international organizations shall share and grant access to relevant information” to facilitate remedial measures.<sup>153</sup> Principle 7 embraces this duty to exchange information so that affected states receive the support necessary to provide timely and effective assistance to victims of TRW.

<sup>147</sup> Mine Ban Treaty, art. 6(2); Convention on Cluster Munitions, art. 6(3).

<sup>148</sup> Convention on Cluster Munitions, art. 6(11).

<sup>149</sup> Dubrovnik Action Plan, para. 42(a).

<sup>150</sup> See Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted March 22, 1989, entered into force on May 5, 1989, art. 13.

<sup>151</sup> International Law Commission, “Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, with Commentaries,” *Yearbook of the International Law Commission* (2001), vol. II, part 2, pp. 164–65. Similar information-sharing provisions are emphasized in the ILC’s Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities. Under those principles, the state with jurisdiction or control over the sources of transboundary damage or any state or international organization with experience in mitigating harms of that type should provide relevant information. International Law Commission, “Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, with Commentaries,” *Yearbook of the International Law Commission* (2006), vol. II, part 2, p. 83 (“Principle 5. Response measures. Upon the occurrence of an incident involving a hazardous activity which results or is likely to result in transboundary damage: (a) the State of origin shall promptly notify all States affected or likely to be affected of the incident and the possible effects of the transboundary damage”).

<sup>152</sup> UN General Assembly, “Effects of the Use of Armaments and Ammunitions Containing Depleted Uranium,” Resolution 71/70, A/RES/71/70, December 14, 2016, <https://undocs.org/A/RES/71/70> (accessed January 7, 2020), para. 6 (“Invites Member States that have used armaments and ammunitions containing depleted uranium in armed conflicts to provide the relevant authorities of affected States, upon request, with information, as detailed as possible, about the location of the areas of use and the amounts used, with the objectives of facilitating the assessment and clearance of such areas”).

<sup>153</sup> International Law Commission, “Report of the International Law Commission, Seventy-First Session,” A/74/10, 2019, p. 214.

## Implementation

### Principle 8: Collection and Dissemination of Information

Affected states should, on an ongoing basis, collect and ensure the dissemination of information regarding the presence of TRW on their territory and the harms those TRW have caused or may cause.

#### Discussion

Collecting and disseminating information regarding the presence of and harms associated with TRW is critical to responding to victims’ needs. Evidence of the presence of TRW includes details regarding the types and geographic locations of contaminants. Information on harm can include reports of the past effects of TRW as well as assessments of the risks of future ones. Qualitative research into the experiences of victims is also useful. The inadequacy of data currently represents a significant barrier to assisting victims of any toxic or radiological substance.<sup>154</sup> Data gathering frequently occurs in an incomplete or haphazard manner through the piecemeal efforts of civil society groups, UN agencies, and other organizations.

In line with Principle 6, affected states should take responsibility for the collection and dissemination of information. Because of their proximity to the harm, they are usually in the best position to gather data regarding TRW and to determine the most effective way of sharing it. States should ensure, however, that their fact-finding is reliable and impartial, and where the impartiality of state investigations is questioned, states should arrange for independent investigations. Such studies can be complemented by investigations by academics, civil society researchers, and other private actors, including communities engaging in “civilian science.”<sup>155</sup> In disseminating information, states should ensure it is accessible, in line with Principle 11.

Information collection, whether from their own research or that of others, provides affected states with knowledge necessary to implement victim assistance measures. Without comprehensive data regarding the geographic scope and associated impacts of TRW, states will be unable to design assistance programs that effectively address victims’ needs. For example, if a state discovers that the shelling of a factory has resulted in hazardous chemicals leaking into nearby water sources, the state must determine the nature of the contamination as well as the medical, social, and economic consequences to develop an appropriate response.

Information collection in turn gives states relevant information to disseminate to victims and to people in affected areas who have yet to experience harm. If individuals are unaware of the presence or dangers of TRW, there is a greater likelihood that they will expose themselves

<sup>154</sup> See, for example, UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, Baskut Tuncak, A/HRC/30/40, July 8, 2015, <https://undocs.org/A/HRC/30/40> (accessed January 7, 2020), para. 9 (“Securing adequate information on the risks of hazardous substances and wastes has been an incessant global challenge.”). See also *ibid.*, paras. 9–21; UN Human Rights Council, Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, A/HRC/36/41, July 20, 2017, para. 110.

<sup>155</sup> See, for example, Weir, McQuillan, and Francis, “Civilian Science: The Potential of Participatory Environmental Monitoring in Areas Affected by Armed Conflict.”



or others or fail to seek medical attention for related health problems. Individuals are likely to continue to rely on a water source for drinking or fishing unless an affected state informs them of the presence of hazardous chemicals. The dissemination of information also allows individuals and communities affected by TRW to engage more meaningfully in decision-making regarding victim assistance, a process discussed further under Principle 12. One mechanism for relaying relevant information is risk reduction education programming, which warns the local population about the health and safety risks of TRW in their vicinity. Similar programs have played an important role in reducing casualties from landmines and ERW.

Disseminating information on the lack of TRW is also important. Uncertainty about whether an at-risk area is indeed contaminated can create fear among individuals who live in the vicinity. For example, the people of a town located downstream from a bombed chemical plant may experience psychological stress because they worry that the pollution has reached their community and put them at risk of illness. States should therefore ascertain whether or not TRW are present in vulnerable areas and share that information with local residents. States should continue to monitor and report on the situation over time to ensure that the public is aware if contamination spreads or if it has been effectively remediated. Such measures can keep the public adequately informed while helping eliminate unnecessary but genuine psychological distress.

### Precedent

Humanitarian disarmament and international environmental law provide precedent for calling on affected states to collect and disseminate information concerning TRW.

Humanitarian disarmament law and policy emphasize the importance of collecting and disseminating information regarding remnants of war. The Mine Ban Treaty and the Convention on Cluster Munitions both require states parties to identify and mark contaminated areas.<sup>156</sup> The latter convention includes additional information-related obligations. It requires affected states parties to “collect reliable relevant data with respect to cluster munition victims.”<sup>157</sup> As applied to these Principles, data collection could generate information about the harm TRW has already caused and provide clues to the risks for others in or near contaminated areas. The Convention on Cluster Munitions also mandates the dissemination of information through “risk reduction education to ensure awareness” for civilians living in or near affected areas.<sup>158</sup> According to the Dubrovnik Action Plan that information should be tailored to reflect the risk-taking behavior of affected communities.<sup>159</sup>

Ensuring the accessibility of environmental information, which depends on its collection and dissemination, is a well-settled norm of international environmental law. Principle 10 of the 1992 Rio Declaration on Environment and Development, a political document centered on sustainable development, states that “each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities.”<sup>160</sup> While the Rio Declaration’s Principle 10 is applicable to all situations, it provides useful precedent for ensuring the dissemination of

<sup>156</sup> See Mine Ban Treaty, art. 5(2); Convention on Cluster Munitions, art. 4(2).

<sup>157</sup> Convention on Cluster Munitions, art. 5(1).

<sup>158</sup> *Ibid.*, art. 4(2)(e).

<sup>159</sup> Dubrovnik Action Plan, para. 23(a).

<sup>160</sup> UN General Assembly, “Report of the United Nations Conference on Environment and Development: Rio Declaration on Environment and Development,” A/CONF.151/26 (Vol. I), August 12, 1992, <https://sustainabledevelopment.un.org/content/documents/1709riodeclarationeng.pdf> (accessed January 7, 2020).

information on hazardous materials, which is especially important before, during, and after an armed conflict.

The Aarhus Convention outlines steps states parties must take to collect and disseminate information on environmental harm.<sup>161</sup> The preamble asserts that in order to exercise their right to “an environment adequate to his or her health and well-being,” citizens must “have access to information.”<sup>162</sup> The convention’s operative provisions oblige states parties to guide the public in accessing environmental information and to “promote environmental education.”<sup>163</sup> Furthermore, the convention requires that environmental information progressively become “available in electronic databases which are easily accessible to the public.”<sup>164</sup>

In his 2018 Framework Principles on Human Rights and the Environment, the UN special rapporteur on human rights and the environment explained that all persons have a human right to “information on environmental matters.”<sup>165</sup> He divided that right into two dimensions. First, states should “regularly collect, update and disseminate environmental information,”<sup>166</sup> especially in “situations involving imminent threat of harm to human health or the environment . . . regardless of whether the threats have natural or human causes.”<sup>167</sup> Second, states must “provide affordable, effective and timely access to environmental information.”<sup>168</sup> The grounds for refusal of environmental information ought to be narrow, “in light of the public interest in favour of disclosure.”<sup>169</sup>

Relevant international environmental organizations have highlighted that this general principle is particularly important in armed conflict. The UNEA, for instance, adopted a resolution in 2017 stressing “the need for the swift identification, assessment, and remediation of pollution in the areas affected by armed conflict or terrorism.”<sup>170</sup> As the UNEA recognized, immediate information-collection regarding pollution is critical in mitigating harm.

## Principle 9: National Strategy

Affected states should develop and implement a comprehensive and coordinated national victim assistance strategy that plans for victims’ short- and long-term needs.

### Discussion

Affected states should develop and implement comprehensive and coordinated victim

<sup>161</sup> The Aarhus Convention is binding on its states parties in Europe and Central Asia as well as the European Union. While not universally binding, the convention sets an important international standard regarding the need to collect and disseminate information concerning environmental hazards.

<sup>162</sup> Aarhus Convention, pmbi.

<sup>163</sup> *Ibid.*, art. 3(2, 3).

<sup>164</sup> *Ibid.*, art. 5(3).

<sup>165</sup> UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, John H. Knox, A/HRC/37/59, January 24, 2018, <https://undocs.org/A/HRC/37/59> (accessed January 10, 2019), para. 17.

<sup>166</sup> *Ibid.*, para. 18.

<sup>167</sup> *Ibid.*

<sup>168</sup> *Ibid.*, para. 19.

<sup>169</sup> *Ibid.* The special rapporteur additionally noted that states should provide the public with information and guidance regarding “remedies for human rights violations,” and how to access the relevant procedures. *Ibid.*, para. 27. States should specifically assist members of the public in “overcom[ing] obstacles to access such as language, illiteracy, expense and distance.” *Ibid.*, para. 30. For more information on accessibility, see Principle 11.

<sup>170</sup> UN Environment Assembly, Resolution 3/1, pmbi.

assistance strategies at the national level to ensure victims' needs are met. In so doing, states should uphold the principles on accessibility, inclusivity, non-discrimination, and transparency, which are discussed below.

While states have flexibility in how they design their programs, every national strategy should contain five practical elements to facilitate an adequate response to victims' needs. A strategy should include a budget, a detailed timeline for implementation, a clear delegation of responsibilities, a focal point, and dedicated laws and policies. Clarity about funding sources, deadlines, and the actors responsible for providing each service can increase the effectiveness and timeliness of assistance. Delegating a focal point (often a specific ministry) can enhance coordination of assistance efforts, facilitate monitoring of spending, and promote accountability in implementation. Laws and policies provide mechanisms for implementation and enforcement. National strategies may, nonetheless, evolve over time in response to new information, scientific developments, or changing circumstances.

A national strategy should also plan for victims' short- and long-term needs. While some harms associated with TRW arise immediately, as discussed under Principle 1, others may surface long after exposure. Inhalation of sulfur dioxide, like that released in 2016 after members of ISIS ignited a sulfur plant, can cause lethal respiratory damage that requires a rapid response.<sup>171</sup> The medical and health impacts of certain dioxin exposure, by contrast, can occur decades, or even generations, after exposure.<sup>172</sup> A national strategy should adopt a methodology for determining how to prioritize the order of assistance. For example, in developing priorities for post-conflict measures in Iraq in 2004, UNEP emphasized the importance of immediately assessing environmental threats to human health and livelihoods and then turning to sustainable development measures in later years.<sup>173</sup> At the same time, national strategies should prepare for long-term assistance, given the possibility that additional impacts will emerge in the future.

To avoid the creation of redundant or conflicting programs, national victim assistance strategies should take into account existing frameworks and obligations regarding human rights, environmental protection, development, and disability. For example, many forms of victim assistance, such as health care or measures for socioeconomic inclusion, mirror general efforts undertaken by states to fulfill their human rights obligations. Depending on the context, victim assistance strategies should be incorporated into, complement, or strengthen previously established frameworks.

Finally, national strategies should strive to maximize the benefits of the international assistance called for in Principle 6. In its national planning, the affected state should consider what external support to request from other states and how best to utilize what it receives.

### Precedent

Principle 9 looks primarily to humanitarian disarmament law and policy for guidance on the development and implementation of comprehensive national plans to assist TRW victims.

<sup>171</sup> Oscar Björnham et al., "The 2016 Al-Mishraq Sulphur Plant Fire: Source and Health Risk Area Estimation," *Atmospheric Environment*, vol. 169 (2017), pp. 288, 292–93.

<sup>172</sup> See, for example, Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides, *Veterans and Agent Orange, Update 1998* (Washington, D.C.: National Academy Press, 1999), pp. 407–465.

<sup>173</sup> UNEP, *UNEP In Iraq: Post-Conflict Assessment, Clean-up and Reconstruction* (2007), [https://wedocs.unep.org/bitstream/handle/20.500.11822/17462/UNEP\\_Iraq.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/17462/UNEP_Iraq.pdf?sequence=1&isAllowed=y) (accessed January 7, 2020), pp. 25–27.

The Convention on Cluster Munitions requires states parties to "develop a national plan and budget, including timeframes to carry out" victim assistance activities "while respecting the specific role and contribution of relevant actors."<sup>174</sup> The convention further obliges states parties to "[d]esignate a focal point within the government for coordination" of victim assistance.<sup>175</sup> The Dubrovnik Action Plan expands on this obligation, noting that the focal point should have "authority, expertise and adequate resources" to carry out victim assistance.<sup>176</sup> The plan specifies that states parties should also monitor and evaluate implementation.<sup>177</sup>

Promoting victim assistance that responds to victims' short- and long-term needs is a key tenant of humanitarian disarmament. Action 29 of the Nairobi Action Plan encourages states to "[e]stablish and enhance health-care services needed to respond to immediate and ongoing medical needs of mine victims."<sup>178</sup> Action 4.1 of the Dubrovnik Action Plan similarly emphasizes that states parties should "bear[] in mind the immediate and long-term needs of cluster munition victims" when building their assistance programs.<sup>179</sup>

Humanitarian disarmament precedent also calls on states to integrate their victim assistance programs into existing frameworks. The Convention on Cluster Munitions obliges states to develop victim assistance measures "with a view to incorporating them within the existing national disability, development and human rights frameworks and mechanisms."<sup>180</sup> The Dubrovnik Action Plan encourages states parties to adapt "existing national policies, plans and legal frameworks . . . such as disability and poverty reduction frameworks" to assist cluster munition victims.<sup>181</sup> The Mine Ban Treaty's Maputo Action Plan contains a similar call for states parties assisting landmine victims.<sup>182</sup>

Under humanitarian disarmament law and policy, international assistance plays a role in the development of national strategies. The Nairobi Action Plan encourages states to "[e]nsure that the activities of the UN, national and international non-governmental organizations and other actors . . . are incorporated into national mine action planning frameworks."<sup>183</sup> The Convention on Cluster Munitions goes further and specifies that states parties may "request the United Nations system, regional organisations, other States Parties or other competent intergovernmental or non-governmental institutions to assist its authorities" in developing a national plan.<sup>184</sup>

State practice demonstrates the importance placed on national strategies. In 1999, the Vietnamese government created the Office of the National Steering Committee on Overcoming Consequences of Agent Orange/Dioxin, an inter-ministerial body tasked with overseeing and coordinating the government's response to the lingering effects of Agent Orange.<sup>185</sup> The office includes members of eight government ministries and coordinates with the US State Department and US Agency for International Development.

<sup>174</sup> Convention on Cluster Munitions, art. 5(2)(c).

<sup>175</sup> *Ibid.*, art. 5(2)(g).

<sup>176</sup> Dubrovnik Action Plan, para. 32(a).

<sup>177</sup> *Ibid.*, para. 32(d).

<sup>178</sup> Nairobi Action Plan, para. 5.

<sup>179</sup> Dubrovnik Action Plan, para. 32(a).

<sup>180</sup> Convention on Cluster Munitions, art. 5(2)(c).

<sup>181</sup> Dubrovnik Action Plan, para. 32(c).

<sup>182</sup> Maputo Action Plan, para. 6(a).

<sup>183</sup> Nairobi Action Plan, para. 6.

<sup>184</sup> Convention on Cluster Munitions, art. 6(11).

<sup>185</sup> Michael F. Martin, Congressional Research Service, "U.S. Agent Orange/Dioxin Assistance to Vietnam," updated February 21, 2019, <https://fas.org/spp/crs/row/R44268.pdf> (accessed January 7, 2020). p. 4.

International environmental law contains analogous requirements to adopt national plans to implement treaty provisions. For example, the 2001 Stockholm Convention on Persistent Organic Pollutants, an international treaty intended to reduce or eliminate the production and use of persistent organic pollutants, mandates that states parties develop plans to implement their obligations.<sup>186</sup> States must review and update their national implementation plans on a periodic basis.<sup>187</sup>

## Principle 10: Capacity Building

States, international organizations, nongovernmental organizations, and other actors should promote capacity building to ensure long-term and effective implementation of victim assistance.

### Discussion

Capacity building, which allows states to assist victims effectively over an extended period of time, involves the development and retention of technology, infrastructure, and skills. For example, detection and monitoring of toxic and radiological substances are usually key steps in the provision of assistance because they illuminate the extent and nature of the problem. Assessing environmental contamination, however, often requires specialized knowledge and tools. Depending on the types of TRW, capacity building in this area could entail establishing research labs with experts and equipment capable of analyzing the toxicity of soil or water samples, potential harms to humans, and safe levels of exposure.

Providing assistance that responds to the problems identified may similarly require specific tools and knowledge. In some cases, capacity building might involve ensuring that a state's medical infrastructure is adequate and that health care professionals possess the skills necessary to deliver care for injuries influenced by TRW. Radiation exposure from US nuclear testing in the Marshall Islands reportedly increased the risk of cancer rates in affected persons.<sup>188</sup> Around 2007, the Marshall Islands developed a plan to update its hospitals with appropriate equipment to screen for and treat cancer.<sup>189</sup> Affected states may also need to hire outside specialists or train local health care professionals to diagnose and address the health effects of TRW. Such capacity building allows victims to receive the care they require within their country instead of traveling to other states.

In other cases, assistance may entail environmental remediation to restore contaminated areas. TRW victims may no longer be able to safely grow crops or rely on local livestock because their farmland and water sources are contaminated with toxic or radiological substances. Treating these substances can be a complicated process. For example, the

<sup>186</sup> Stockholm Convention on Persistent Organic Pollutants, adopted May 22, 2001, 2256 U.N.T.S. 119, entered into force May 17, 2004, art. 7.

<sup>187</sup> Ibid. For an example of a national implementation plan, see Bosnia and Herzegovina, *National Implementation Plan for the Stockholm Convention in Bosnia and Herzegovina* (July 2015), <http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-NIP-BosniaandHerzegovina-1.English.pdf> (accessed January 7, 2020).

<sup>188</sup> See, for example, Charles E. Land et al., "Projected Lifetime Cancer Risks from Exposure to Regional Radioactive Fallout in the Marshall Islands," *Health Physics* 99 (2010): 201, accessed January 7, 2020, doi: 10.1097/HP.0b013e3181dc4e84, pp. 210–13.

<sup>189</sup> Government of the Republic of the Marshall Islands, *National Comprehensive Cancer Control Plan 2007-2012*, undated, [ftp://ftp.cdc.gov/pub/Publications/Cancer/ccc/marshall\\_islands\\_ccc\\_plan\\_2007\\_2012.pdf](ftp://ftp.cdc.gov/pub/Publications/Cancer/ccc/marshall_islands_ccc_plan_2007_2012.pdf) (accessed January 7, 2020), p. 68.

"in situ thermal desorption" process chosen to rehabilitate dioxin-contaminated soil in Vietnam uses heater wells to maintain a high soil temperature over a period of time and vacuum wells to extract hot air and water vapor.<sup>190</sup> Capacity building would involve ensuring that affected states have access to the technology and knowledge required to remediate contaminated sites.

Capacity building can occur at the community and national levels. It should give affected communities tools that allow them to provide for their own needs. Doing so not only improves assistance but also empowers affected communities and recognizes victims' dignity and agency.<sup>191</sup> At the national level, other states, international organizations, and nongovernmental organizations can help an affected state fill gaps in its capacity to address victims' needs, making it less dependent on outside support over time.

Because the impacts of TRW are often ongoing, they require long-term solutions. As discussed above, the health effects of TRW can emerge years after initial exposure, necessitating continual monitoring and the ability to respond when latent illnesses manifest. Remediating farmland or fisheries can be a lengthy process, even when returning an area to its original state is not possible. Effective victim assistance thus requires sustainability, which is made possible by bolstering local and national capacity.

### Precedent

Humanitarian disarmament precedent and international environmental practice highlight the importance of capacity building.

Humanitarian disarmament treaty law implicitly encourages building an affected state's capacity to implement victim assistance programs. Recognizing the critical role of international actors, the Mine Ban Treaty and the Convention on Cluster Munitions require states parties to facilitate the exchange of "scientific and technological information" and the delivery of equipment.<sup>192</sup> This obligation suggests that states parties should furnish affected states parties with knowledge and tools necessary to carry out sustainable assistance programs. In a related provision, the Convention on Cluster Munitions and the TPNW require states parties in a position to do so to provide "technical, material and financial assistance" to affected states parties.<sup>193</sup>

Implementation plans for humanitarian disarmament treaties explicitly call for capacity building. The Maputo Action Plan encourages affected states parties to "strengthen local capacities" for victim assistance and all states parties to "enhance the capacity" of mine victims.<sup>194</sup> The Dubrovnik Action Plan likewise calls on states parties to "strengthen their national capacity to provide assistance" by "mobilizing adequate national and international resources."<sup>195</sup> The plan further calls on states parties to review the adequacy of existing medical, educational, and other services to identify where capacity building is needed.<sup>196</sup>

<sup>190</sup> See K.S. Sorenson et al., "Technology Selection and Conceptual Design for Cleanup of Dioxin Contamination at the Da Nang Airport Hot Spot, Viet Nam," undated, <http://terratherm.com/resources/documents/76-TechnologySelectionandConceptualDesignforCleanupofDioxinContaminationattheDanangAirportHotSpotVietNam1.pdf> (accessed January 7, 2020).

<sup>191</sup> Civilian science exemplifies an empowering community tool. See generally Weir, McQuillan, and Francis, "Civilian Science: The Potential of Participatory Environmental Monitoring in Areas Affected by Armed Conflict."

<sup>192</sup> Mine Ban Treaty, art. 6(2); Convention on Cluster Munitions, art. 6(3).

<sup>193</sup> Convention on Cluster Munitions, art. 6(2); TPNW, art. 7(3).

<sup>194</sup> Maputo Action Plan, para. 6(d), (e).

<sup>195</sup> Dubrovnik Action Plan, para. 32(a).

<sup>196</sup> Ibid, para. 32(b).

International environmental programs designed to deal with the effects of armed conflict have recognized the importance of capacity building. In the early 2000s, UNEP worked to build the Iraqi government's capacity to assess the impacts of depleted uranium use.<sup>197</sup> The program sought to promote the Iraqi government's ability to identify contaminated sites and test soil, water, and vegetation samples by hosting training workshops for Iraqi Ministry of Environment personnel and supplying field equipment, such as monitoring instruments.<sup>198</sup> In 2018, UNEP initiated a new program to assist Iraq with cleaning up oil contamination from the conflict with ISIS.<sup>199</sup> UNEP trained Iraqi officials on site assessments and carried out joint analyses to prioritize sites for cleanup.

States and international organizations have worked to build capacity at both the community and national levels. The UN Policy on Victim Assistance in Mine Action articulates the commitment of the United Nations to enhancing the "capacity of states and local communities to ensure that services for victims remain available in the long-term and that states are able to comply with their respective national and international obligations."<sup>200</sup> An integral part of addressing the harm caused by landmines and cluster munitions is developing local and national demining capacity. Over the past decade, for example, France and Lebanon have worked together to create a Regional School for Humanitarian Demining in Lebanon. As part of the initiative, a French technical adviser trained 35 Lebanese nationals to become instructors at the school.<sup>201</sup> In 2018, the school trained 173 individuals from 6 countries in demining and related skills.<sup>202</sup>

<sup>197</sup> UN Environment Programme, *Technical Report on Capacity-building for the Assessment of Depleted Uranium in Iraq* (August 2007), [https://postconflict.unep.ch/publications/Iraq\\_DU.pdf](https://postconflict.unep.ch/publications/Iraq_DU.pdf) (accessed January 7, 2020), pp. 7–9.

<sup>198</sup> *Ibid.*, pp. 5, 7–17. The UN General Assembly has called on states to "provide assistance to States affected by the use of arms and ammunition containing depleted uranium, in particular in identifying and managing contaminated sites and materials." UN General Assembly, "Effects of the Use of Armaments and Ammunitions Containing Depleted Uranium," Resolution 71/70, A/RES/71/70, December 14, 2016, para. 7.

<sup>199</sup> UN Environment Programme, "Iraq Officials Trained in Assessing Oil Contaminated Sites from the ISIL Conflict," September 27, 2018.

<sup>200</sup> United Nations, "The United Nations Policy on Victim Assistance in Mine Action," 2016, para. 38.

<sup>201</sup> Regional School for Humanitarian Demining in Lebanon, "RSHDL: A Regional Mine Action Training Organization," <https://rshdl.org/en/index.php/en/rshdl> (accessed January 7, 2020).

<sup>202</sup> See Lebanon Mine Action Centre, "2018 Annual Report," <https://lebmac.org/en/images/LMAC%20Annual%20Report%202018.pdf> (accessed January 7, 2020).

## Guiding Principles

### Principle 11: Accessibility

In order to be effective, assistance should be accessible to victims. Accessibility requires identifying and eliminating obstacles to access, including but not limited to informational and physical barriers.

#### Discussion

According to Principle 11, states should design and implement victim assistance programs to guarantee they are accessible to all victims. States should make available information about the types of assistance, the process by which assistance is delivered, and the requirements for eligibility to victims. Victims should also be able to secure the actual assistance to which they are entitled. Ensuring the accessibility of a particular program depends, in part, on close consultation with the relevant stakeholders, as they understand how best to reach those in need.

Obstacles to access take a variety of shapes. Information barriers can arise from the "form and content" of the knowledge being relayed.<sup>203</sup> Form refers to the method of communication. A population that is primarily illiterate, for example, would face difficulties understanding written rather than verbal messaging about how to apply for assistance. Content refers to the substance of the message being communicated. Victims without specialized education may be unable to comprehend complex scientific data about health risks if it is not presented in laypersons' terms. Physical barriers may arise from features of the natural or human-constructed environment. Mountainous terrain or poorly maintained infrastructure can impede delivery of assistance to an affected community.<sup>204</sup>

Identifying and eliminating obstacles to victim assistance requires sensitivity to certain characteristics of victims, such as gender and age. Elderly victims, for example, may have problems with mobility. Using community leaders to relay information or delivering assistance to these victims' doors rather than to a distribution site may overcome their limited ability to travel.

Adapting victim assistance programs to geographic, cultural, and religious contexts can also help increase accessibility. If affected communities are located in the countryside, moving assistance providers from urban to rural areas can overcome certain physical obstacles. When assisting indigenous victims of TRW, presenting information in local languages and delivering assistance with cultural sensitivity can make assistance more widely accessible. Program designers can further reduce cultural barriers by closely consulting with the affected communities and forming partnerships with "[e]lders and other Indigenous leaders."<sup>205</sup> Showing respect for religious beliefs is also crucial to promoting the accessibility of victim assistance.<sup>206</sup>

<sup>203</sup> Janet E. Lord et al., *Human Rights. YES! Action and Advocacy on the Rights of Persons with Disabilities* (Minneapolis: University of Minnesota Human Rights Center, 2012), part 2, p. 19.

<sup>204</sup> *Ibid.*, p. 18.

<sup>205</sup> Annette J. Browne et al., "Enhancing Health Care Equity with Indigenous Populations: Evidence-Based Strategies from an Ethnographic Study," *BMC Health Services Research* 16 (2016): 544, accessed January 7, 2020, doi:10.1186/s12913-016-1707-9, p. 9.

<sup>206</sup> For a discussion of how aspects of a variety of religions relate to health services, see generally Alberta Health Services, *Health Care and Religious Belief* (June 2015), <https://www.albertahealthservices.ca/assets/programs/ps-1026227-health-care-religious-beliefs.pdf> (accessed January 7, 2020).



### Precedent

In calling on states to identify and eliminate obstacles to access, Principle 11 looks to humanitarian disarmament victim assistance policies and international human rights law for guidance.

Humanitarian disarmament implementation plans and policies have stressed the importance of accessibility. The Maputo Action Plan calls on affected states parties to remove barriers to access, including “physical, social, cultural, economic, [and] political” ones.<sup>207</sup> Under the Dubrovnik Action Plan, states parties to the Convention on Cluster Munition committed to identifying and removing “barriers that prevent access,” especially in remote and rural areas.<sup>208</sup> The UN Policy on Victim Assistance in Mine Action notes that “[m]ine and ERW victims shall have access to the services they require.” The policy describes a number of potential barriers to access, “such as physical obstacles” and “lack of access to information and negative attitudes towards persons with disabilities.”<sup>209</sup> The policy specifies that implementation of measures to eliminate barriers to access should be sensitive to age and gender.<sup>210</sup>

The principle of accessibility has additional bases in international human rights law. The CRPD in particular includes an “innovative provision that formulates, for the first time in a UN human rights agreement, a right to accessibility.”<sup>211</sup> Article 9 of the CRPD describes accessibility as taking:

[A]ppropriate measures to ensure to persons with disabilities access . . . to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures . . . shall include the identification and elimination of obstacles and barriers to accessibility.<sup>212</sup>

While the CRPD obligation applies specifically to disability-related barriers, accessibility in Principle 11 accounts for other obstacles that may arise due to individual or community characteristics.

### Principle 12: Inclusivity

Affected states should meaningfully consult with and actively involve victims and their representative organizations at all stages of the victim assistance process.

### Discussion

Victims of TRW know their own needs and generally have valuable insights into the types of assistance that would be most effective for them. Victims are also independent agents who should be treated as essential partners in the assistance process. Therefore, affected states

<sup>207</sup> Maputo Action Plan, para. 6(d).

<sup>208</sup> Dubrovnik Action Plan, para. 32(b), (d).

<sup>209</sup> United Nations, “The United Nations Policy on Victim Assistance in Mine Action,” 2016, para. 24(g).

<sup>210</sup> *Ibid.*, para. 24(f).

<sup>211</sup> Francesco Seatzu “Article 9: Accessibility,” in *The United Nations Convention on the Rights of Persons with Disabilities: A Commentary*, eds. Valentina Della Fina, Rachele Cera, and Giuseppe Palmisano (Cham, Switzerland: Springer, 2017), p. 227.

<sup>212</sup> CRPD, art. 9(1).

should integrate victims fully into the design, administration, implementation, monitoring, and evaluation of assistance programs.

States should engage in meaningful consultation with individuals, families, and communities affected by TRW. It is not sufficient for actors providing assistance simply to seek information from victims. Rather, meaningful consultation entails an interactive and iterative process and should take place at every stage of victim assistance. States should collect a wide range of perspectives and incorporate those views in the resulting programs. When amending a proposal or reforming an existing program, states should go back to victims until an optimal solution has been reached. Consulting a range of stakeholders can help victim assistance address harms that differ across groups. For example, the UNEA has recognized that conflict pollution may have “specific negative effects” on women and girls, necessitating application of a gender perspective to the development of a response.<sup>213</sup>

Going beyond consultation, inclusivity requires actively involving victims in the decisions and programs that affect their lives. Means of promoting ongoing involvement include holding regularly scheduled community meetings or appointing victim representatives to standing committees that work with the relevant government officials. In accordance with Principle 11, victims should have access to planners, policymakers, and implementation personnel. Victims can also be engaged in the delivery of assistance and efforts to assess a program’s effectiveness.

Finally, consultation and involvement should extend beyond specific victims to their representative organizations. These organizations, which are created by and comprised largely of victims themselves,<sup>214</sup> can promote the interests of victims and efficiently pool resources to create a dedicated body for consultation. The organizations should be permitted to represent victim interests at the local, national, regional, and international levels.

### Precedent

Humanitarian disarmament law and international human rights law both call for states to proactively consult and involve victims in the assistance process.

The duty to consult victims is clearly articulated in humanitarian disarmament treaty law and policy. The Convention on Cluster Munitions requires states parties providing assistance to “[c]losely consult with and actively involve cluster munition victims.”<sup>215</sup> The Maputo Action Plan encourages “the inclusion and full and active participation of mine victims . . . in all matters that affect them,” including victim assistance.<sup>216</sup> Similarly, the UN Policy on Victim Assistance in Mine Action recognizes that “[m]ine and [explosive remnant of war] victims . . . should be consulted in” all stages of victim assistance.<sup>217</sup>

Indigenous peoples law provides additional precedent for the duty to consult. This body of law is relevant to the TRW context because, as the TPNW recognizes in its preamble, TRW

<sup>213</sup> UN Environment Assembly, Resolution 3/1, pmb1.

<sup>214</sup> One organization defines “disabled persons organizations” as “organizations run and controlled by persons with disabilities, with a majority of staff, membership, and representatives of the governing body being persons with disabilities.” UN Relief and Works Agency for Palestinian Refugees in the Near East, *Disability Inclusion Guidelines* (2017), [https://www.unrwa.org/sites/default/files/content/resources/disability\\_inclusion\\_guidelines.pdf](https://www.unrwa.org/sites/default/files/content/resources/disability_inclusion_guidelines.pdf) (accessed January 7, 2020), p. 12, n. 39.

<sup>215</sup> Convention on Cluster Munitions, art. 5(2)(f).

<sup>216</sup> Maputo Action Plan, para. 6(e).

<sup>217</sup> United Nations, “The United Nations Policy on Victim Assistance in Mine Action,” 2016, para. 24(e).

often affect indigenous communities.<sup>218</sup> The Indigenous and Tribal Peoples Convention requires that states parties “consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever consideration is given to legislative or administrative measures which may affect them directly.”<sup>219</sup> The Inter-American Court of Human Rights has similarly recognized an “obligation to consult with indigenous and tribal communities and peoples on any administrative or legislative measure that may affect their rights.”<sup>220</sup> According to the court, consultation must proceed in an “active and informed manner” and “must be undertaken in good faith [and] us[e] culturally-appropriate procedures.” In addition, states must provide adequate information so that affected persons fully understand the benefits and risks of a proposed action.<sup>221</sup>

Principle 12 uses the adverb “meaningfully” to indicate that consultation with victims should be substantive and interactive and that states should adapt plans based on victim input. The term “meaningful consultation” has roots in norms on relations with indigenous peoples. The UN Declaration on the Rights of Indigenous Peoples calls on states to “consult and cooperate in good faith with the indigenous peoples concerned” prior to carrying out projects on indigenous lands.<sup>222</sup> In implementing the declaration, at least one state, Canada, has noted that consultation requires “meaningful engagement.”<sup>223</sup> Best practices for development programs have also highlighted the importance of such engagement with affected groups. The 2014 Guiding Principles on Large Scale Land Based Investments in Africa, policy guidelines developed by the Land Policy Initiative of the African Union to ensure that land investments “benefit Member States and key stakeholders,”<sup>224</sup> call on relevant parties to base environmental and social impact assessments on “meaningful consultation of affected people.”<sup>225</sup>

National laws inform what meaningful consultation should entail. In multiple decisions, for example, the Canadian Supreme Court has held that the Canadian government “has a duty to consult and, where appropriate, accommodate when the Crown contemplates conduct that might adversely impact potential or established Aboriginal or Treaty rights.”<sup>226</sup> In implementing this duty, the Canadian government has established a number of key principles. In particular, “meaningful consultation . . . is characterized by good faith and an attempt by parties to understand each other’s concerns, and move to address them.”<sup>227</sup> The views expressed by the indigenous groups must be “seriously considered and, whenever possible, clearly reflected in a proposed activity,” and the consultation activities must be carried out in a “timely and efficient manner.”<sup>228</sup>

<sup>218</sup> TPNW, pmb. (“Recognizing the disproportionate impact of nuclear-weapon activities on indigenous peoples”).

<sup>219</sup> ILO Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries, art. 6.

<sup>220</sup> Inter-American Court of Human Rights, Case of the Kichwa Indigenous People of Sarayaku v. Ecuador, Judgment of June 27, 2012, Inter-Am.Ct.H.R., (Ser. C) No. 245, para. 166.

<sup>221</sup> Ibid., para. 177.

<sup>222</sup> UN Declaration on the Rights of Indigenous Peoples, art. 32(2).

<sup>223</sup> Department of Justice, Government of Canada, “Principles Respecting the Government of Canada’s Relationship with Indigenous Peoples,” 2018, <https://www.justice.gc.ca/eng/csj-sjc/principles.pdf> (accessed January 7, 2020), p. 12.

<sup>224</sup> UN Economic Commission for Africa, *Guiding Principles on Large Scale Land Based Investments in Africa* (2014), [https://www.uneca.org/sites/default/files/PublicationFiles/guiding\\_principles\\_eng\\_rev\\_era\\_size.pdf](https://www.uneca.org/sites/default/files/PublicationFiles/guiding_principles_eng_rev_era_size.pdf) (accessed January 7, 2020) p. vii.

<sup>225</sup> Ibid. p. 22.

<sup>226</sup> Minister of the Department of Aboriginal Affairs and Northern Development, Government of Canada, “Aboriginal Consultation and Accommodation,” March 2011, [https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/intgui\\_1100100014665\\_eng.pdf](https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/intgui_1100100014665_eng.pdf) (accessed January 7, 2020), p. 6.

<sup>227</sup> Ibid., p. 13.

<sup>228</sup> Ibid.

International human rights law and principles also promote partnering with affected persons on decision-making processes. The CRPD obliges states parties to “actively involve persons with disabilities” when developing and implementing legislation and policies concerning them.<sup>229</sup> The convention further specifies that victims should “participate fully” in efforts to monitor implementation of the treaty.<sup>230</sup> Similarly, the Framework Principles on Human Rights and the Environment call on states to “provide for and facilitate public participation in decisionmaking related to the environment.”<sup>231</sup>

Finally, humanitarian disarmament law and policy and international human rights law support consultation with, and active participation of, representative organizations. The provisions of the Convention on Cluster Munitions discussed above refer to consultation with and involvement of cluster munitions victims and “their representative organizations.”<sup>232</sup> The Maputo Action Plan and UN Policy on Victim Assistance in Mine Action likewise call for inclusion of representative organizations, such as survivor organizations or disabled people organizations.<sup>233</sup> The CRPD obligations to consult with persons with disabilities extend to representative organizations, and the Framework Principles on Human Rights and the Environment note that public participation can be conducted through representative bodies.<sup>234</sup>

### Principle 13: Non-discrimination

Assistance programs must not discriminate against or among TRW victims, or between TRW victims and those who have suffered harm from other causes. Victim assistance should not be provisioned or withheld on the basis of race, color, language, ethnicity, sex, sexual orientation, gender identity, age, national origin, religion, disability, geographic location, or other status. Differences in treatment should be based only on medical, rehabilitative, psychological, or socioeconomic needs.

#### Discussion

Victim assistance programs should comply with the human rights obligation not to discriminate. Principle 13 enumerates impermissible bases for discrimination drawn from those identified by the international human rights instruments and bodies discussed below. The principle also specifies that states shall not discriminate among victims based on their location because, in the TRW context, victims may be geographically dispersed.

In addition to calling for equitable treatment of TRW victims, Principle 13 proscribes discrimination among victims more broadly. For example, states should not provide assistance to individuals affected by conflict-related pollution while ignoring those who suffer due to industrial contamination. This part of the principle seeks to “narrow[] the gap between

<sup>229</sup> CRPD, art. 4(3).

<sup>230</sup> Ibid., art. 33(3).

<sup>231</sup> UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 24, 2018, p. 12.

<sup>232</sup> Convention on Cluster Munitions, art. 5(2)(f).

<sup>233</sup> Maputo Action Plan, para. 6(e); United Nations, “The United Nations Policy on Victim Assistance in Mine Action,” 2016, para. 24(e).

<sup>234</sup> CRPD, art. 4(3); UN Human Rights Council, Report of Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 24, 2018, p. 12.

groups in society who are all entitled to rights and whose needs, and the barriers they face, may be similar.”<sup>235</sup> In the process, it can help improve conditions for affected persons beyond TRW victims.<sup>236</sup>

Nevertheless, the principle of non-discrimination allows states to treat victims differently under certain circumstances. Variations in treatment may be justified for medical, rehabilitative, psychological, or socioeconomic reasons. As discussed above, victim assistance should be tailored to address victims’ particularized needs, which may require different responses. A health professional could, for instance, determine that some persons exposed to TRW face a more immediate harm and thus require medical care before others. States could also prioritize the provision of assistance, ranging from health care to educational opportunities, to victims with limited financial resources.

### Precedent

Principle 13 reflects the clear obligation under international human rights law to prohibit discrimination and draws on obligations under humanitarian disarmament law not to discriminate in the implementation of victim assistance programs.

International human rights law prohibits discrimination. The ICCPR and ICESCR prohibit discrimination on the basis of “race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.”<sup>237</sup> The 1965 International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) and the 1979 Convention on Elimination of All Forms of Discrimination Against Women (CEDAW) reiterate those prohibitions with regard to race and sex, respectively.<sup>238</sup> Under the CRPD, states must “prohibit all discrimination on the basis of disability and guarantee to persons with disabilities equal and effective legal protection against discrimination.”<sup>239</sup> The Human Rights Council has expressed concern about discrimination against persons on the basis of their sexual orientation or gender identity.<sup>240</sup> Drawing on these sources, the Framework Principles on Human Rights and the Environment similarly note that “[s]tates should prohibit discrimination and ensure equal and effective protection against discrimination in relation to the enjoyment of a safe, clean, healthy and sustainable environment.”<sup>241</sup>

Humanitarian disarmament treaty law and associated policies incorporate the human rights principle of non-discrimination and specifically prohibit states from discriminating in the provision of victim assistance. The Convention on Cluster Munitions expressly prohibits states from discriminating “against or among cluster munition victims, or between cluster munition victims and those who have suffered injuries or disabilities from other causes.” Under the convention, “differences in treatment should be based only on medical, rehabilitative, psychological or socio-economic needs.”<sup>242</sup> The TPNW requires states parties to provide assistance “in accordance with applicable international . . . human rights law” and “without

<sup>235</sup> Markus Reiterer and Tirza Leibowitz, “Article 5: Victim Assistance,” in *The Convention on Cluster Munitions: A Commentary*, eds. Gro Nystuen and Stuart Casey-Maslen (Oxford: Oxford University Press, 2010), para. 5.109.

<sup>236</sup> Ibid.

<sup>237</sup> ICCPR, art. 2(1); ICESCR, art. 2(2).

<sup>238</sup> ICERD, arts. 1-2; CEDAW, arts. 1-2.

<sup>239</sup> CRPD, art. 5(2).

<sup>240</sup> UN Human Rights Council, “Human Rights, Sexual Orientation and Gender Identity,” Resolution 17/19, A/HRC/Res/17/19, July 14, 2011, pmbl.

<sup>241</sup> UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 24, 2018, p. 8.

<sup>242</sup> Convention on Cluster Munitions, art. 5(2)(e).

discrimination.”<sup>243</sup> Finally, in the Cartagena Action Plan adopted during the Second Review Conference of the Mine Ban Treaty in 2009, states parties committed to “not discriminate against or among mine victims, or between mine survivors and other persons with disabilities.” Under the plan, differential treatment should be based only on victim needs.<sup>244</sup>

## Principle 14: Transparency

Affected states should ensure transparency with respect to the design, administration, implementation, monitoring, and evaluation of assistance.

### Discussion

Transparency at all stages of the victim assistance process has a number of benefits. First, transparency is essential to the framework of shared responsibility. Reporting by affected states can reveal gaps in addressing victims’ needs and help identify what resources are needed to fill those gaps. Reporting in turn allows other states to determine how best to tailor their support and identify useful information to share.

Second, transparency facilitates monitoring and evaluation. When information about victim assistance is made public, victims, nongovernmental organizations, international organizations, and states can better assess the progress and efficacy of programs. For example, if affected states release details about their national implementation strategies, called for in Principle 9, outside parties can determine whether objectives are in line with victims’ needs and whether targets are being met. Such scrutiny promotes accountability. Transparency regarding a program’s budget in particular deters corruption by officials and contractors.

Third, transparency facilitates victim participation in the assistance programs, the importance of which is discussed under Principle 12. For example, victims and their representative organizations should receive information about proposed assistance programs at the design phase so that they can provide meaningful input and ensure the adopted plans are responsive to their needs.<sup>245</sup> Transparency at this stage allows them to evaluate proposals, consult with independent experts if desired, and influence the final outcome.

Fourth, transparency helps increase the accessibility of victim assistance programs. Affected states should widely disseminate information about the availability of assistance programs and the requirements for eligibility. In accordance with Principle 11, states should relay information in ways that take into account victims’ languages, literacy, and education levels.

Given the value of transparency, affected states should not wait for victims or other interested parties to request information. Instead they should be open about their victim assistance efforts on a proactive and ongoing basis. Doing so reduces the burden on victims and allows interested parties to track the process across time.

<sup>243</sup> TPNW, art. 6(1).

<sup>244</sup> Cartagena Action Plan, para. 14.

<sup>245</sup> For example, the US Agency for International Development involved several partners in a transparent process to select appropriate technologies for the remediation of dioxin at Da Nang airport in Viet Nam. Sorenson et al., “Technology Selection and Conceptual Design for Cleanup of Dioxin Contamination at the Da Nang Airport Hot Spot, Viet Nam.”



### Precedent

Humanitarian disarmament law and practice as well as international human rights and environmental law lay the groundwork for the transparency measures outlined in Principle 14.

Humanitarian disarmament law and policy require states to be open about their implementation efforts, including those related to victim assistance. Article 7 of the Mine Ban Treaty requires states parties to submit reports on “national implementation measures” to the UN secretary-general.<sup>246</sup> Although the treaty does not explicitly reference reporting on victim assistance, the Nairobi Action Plan emphasizes the importance of transparency “as a tool to assist in implementation, particularly in cases where States Parties must still . . . assist mine victims.”<sup>247</sup> Article 7 of the Convention on Cluster Munitions codifies that commitment, obliging states parties to report to the UN secretary-general on “measures taken to provide risk reduction education” and the “status and progress of implementation of its obligations . . . to adequately” assist cluster munition victims.<sup>248</sup>

Meetings of States Parties to these treaties have provided a forum for transparency. The Mine Ban Treaty and the Convention on Cluster Munitions require states parties to address the “operation and status” of the conventions as well as “matters arising from the reports submitted under [their] provisions” at these annual meetings.<sup>249</sup> Sharing information with other states helps illuminate the needs of affected states parties and possible opportunities for international cooperation and assistance. It is also a tool for monitoring progress in implementation.

Nongovernmental organizations have been effective in using the transparency mechanisms mandated by these treaties to promote accountability for humanitarian disarmament obligations. Since 1999, the International Campaign to Ban Landmines has published the annual *Landmine Monitor* based on Article 7 reports, Meeting of States Parties statements, and other sources.<sup>250</sup> The Monitor tracks states parties’ implementation measures and compliance with the treaty, and it includes a separate chapter on victim assistance. The Cluster Munition Coalition’s *Cluster Munition Monitor*, published since 2010, follows the same approach.<sup>251</sup>

While Article 7 mandates disclosure only to the UN secretary-general and other states parties, the reporting requirement and sharing of information with civil society suggest acceptance that all stakeholders, including victims themselves, should have information on victim assistance measures. As discussed above, such information promotes inclusivity and accessibility.

International human rights law provides additional support for the principle on transparency. Numerous human rights treaties require states parties to report on their implementation progress to a dedicated treaty body. For example, the ICCPR establishes the Human Rights Committee, a group of independent experts that interprets and monitors compliance with

<sup>246</sup> Mine Ban Treaty, art. 7(1).

<sup>247</sup> Nairobi Action Plan, para. 7.

<sup>248</sup> Convention on Cluster Munitions, art. 7.

<sup>249</sup> Mine Ban Treaty, art. 11(1)(a–b); Convention on Cluster Munitions, art. 11(1)(a–b).

<sup>250</sup> See, for example, International Campaign to Ban Landmines–Cluster Munition Coalition, *Landmine Monitor 2019* (November 2019), <http://www.the-monitor.org/media/3074086/Landmine-Monitor-2019-Report-Final.pdf> (accessed May 5, 2020).

<sup>251</sup> See, for example, International Campaign to Ban Landmines–Cluster Munition Coalition, *Cluster Munition Monitor 2019* (August 2019), [http://www.the-monitor.org/media/3047840/Cluster-Munition-Monitor-2019\\_online.pdf](http://www.the-monitor.org/media/3047840/Cluster-Munition-Monitor-2019_online.pdf) (accessed January 7, 2020).

the covenant.<sup>252</sup> The ICCPR requires states parties to submit to the committee (via the UN secretary-general) periodic reports “on the measures they have adopted which give effect to the rights recognized herein and on the progress made in the enjoyment of those rights.”<sup>253</sup> Other human rights instruments, including the ICESCR, ICERD, CEDAW, and CRPD, create similar bodies and monitoring mechanisms.<sup>254</sup> In addition, the Human Rights Council, consisting of 47 states elected by the UN General Assembly, requires UN member states to submit reports on their human rights records through a mechanism known as the universal periodic review.

International environmental law also encourages transparency. For example, the Aarhus Convention specifically requires states parties to disseminate information on environmental programs to the public. It states that parties shall ensure that “the way in which public authorities make environmental information available to the public is transparent and that environmental information is effectively accessible.”<sup>255</sup> Such information includes not only reports on the condition of the environment but also details about legislation and “policies, plans and programmes on or relating to the environment.”<sup>256</sup>

<sup>252</sup> ICCPR, art. 28.

<sup>253</sup> *Ibid.*, art. 40(1).

<sup>254</sup> ICESCR, arts. 16–17 (requiring reporting to the UN Economic and Social Council (ECOSOC), which later created the Committee on Economic, Social and Cultural Rights to serve as the covenant’s treaty body); “Review of the Composition, Organization and Administrative Arrangements of the Sessional Working Group of the Governmental Experts on the Implementation of the International Covenant on Economic, Social and Cultural Rights,” ECOSOC resolution 1985/17, May 28, 1985 (creating the committee). See also ICERD, arts. 8–9; CEDAW, arts. 17–22; CRPD, arts. 34–35.

<sup>255</sup> Aarhus Convention, art. 5(2).

<sup>256</sup> *Ibid.*, art. 5(3).

## International Humanitarian Law and Disarmament Sources

Sources	Principles for Assisting Victims of Toxic Remnants of War													
	1. Purpose of Victim Assistance	2. Definition of Toxic Remnants of War	3. Definition of Victim	4. Types of Harm	5. Types of Victim Assistance	6. Responsibility	7. Exchange of Scientific and Technical Information	8. Collection and Dissemination of Information	9. National Strategy	10. Capacity Building	11. Accessibility	12. Inclusivity	13. Non-discrimination	14. Transparency
<b>Legal Instruments</b>														
<b>Additional Protocol I to the Geneva Conventions (1977):</b> Establishes protections for civilians in international armed conflicts.					•									
<b>Convention on Cluster Munitions (2008):</b> Prohibits activities involving cluster munitions and imposes stockpile destruction, clearance, and victim assistance obligations.	•	•	•	•	•	•	•	•	•		•	•	•	
<b>Hague Convention (IV) respecting the Laws and Customs of War on Land (1907):</b> Establishes regulations related to belligerents, the means and methods of war, and situations of occupation.					•									
<b>Mine Ban Treaty (1997):</b> Prohibits activities involving antipersonnel landmines and imposes stockpile destruction, clearance, and victim assistance obligations.	•	•	•	•	•	•	•		•					•
<b>Protocol on Explosive Remnants of War to the Convention on Conventional Weapons (CCW Protocol V) (2003):</b> Creates obligations, including to assist victims, that are designed to reduce the impacts of explosive remnants of war.		•	•											
<b>Treaty on the Prohibition of Nuclear Weapons (TPNW) (2017):</b> Prohibits activities involving nuclear weapons and imposes safeguarding, victim assistance, and environmental remediation obligations.	•	•	•	•	•				•		•	•		

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<b>Interpretation and Implementation Documents</b>														
<b>Cartagena Action Plan (2009):</b> Reaffirms states parties' commitment to the Mine Ban Treaty and lays out the Second Review Conference's roadmap for implementation.	•												•	
<b>Dubrovnik Action Plan (2015):</b> Articulates First Review Conference's priorities and goals for implementation of the Convention on Cluster Munitions.	•					•	•	•	•	•				
<b>First Review Conference of the Mine Ban Treaty, Final Report (2004):</b> Reviews status and operation of Mine Ban Treaty.				•										
<b>Maputo Action Plan (2014):</b> Reaffirms states parties' commitment to the Mine Ban Treaty and lays out the Third Review Conference's roadmap for implementation.	•				•			•	•	•	•			
<b>Nairobi Action Plan (2004):</b> Reaffirms states parties' commitment to the Mine Ban Treaty and lays out the First Review Conference's roadmap for implementation.	•	•			•			•						•
<b>UN General Assembly Resolution on the Effects of the Use of Armaments and Munitions Containing Depleted Uranium (2016):</b> Calls for new research and states' positions on depleted uranium and encourages states to assist affected states.						•			•					
<b>UN Policy on Victim Assistance in Mine Action (2016):</b> Establishes victim assistance guidelines for the United Nations and other entities.		•		•					•	•	•			

## International Human Rights Law Sources

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<b>Legal Instruments</b>														
<b>Basic Principles and Guidelines on the Right to a Remedy and Reparation (2005):</b> Establishes the rights of victims of serious violations of international humanitarian and human rights law to remedies and reparation.			•		•									
<b>Basic Principles of Justice for Victims of Crime and Abuse of Power (1985):</b> Establishes principles for assisting and promoting justice for victims of crime and abuse of power.			•	•										
<b>Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (1979):</b> Requires states parties to end discrimination against women, ensure women's full legal equality with men, and guarantee basic human rights to women on an equal basis to men.	•											•		•
<b>Convention on the Rights of Persons with Disabilities (CRPD) (2006):</b> Creates a legal regime aimed at promoting, protecting, and ensuring the rights and dignity of persons with disabilities.	•				•					•	•	•	•	•
<b>Convention on the Rights of the Child (CRC) (1989):</b> Obliges states parties to respect and ensure the rights of the child.	•													

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<b>Legal Instruments</b>														
<b>Indigenous and Tribal Peoples Convention (ILO Convention No. 169) (1989):</b> Requires states parties to protect the rights and respect the integrity of indigenous and tribal peoples.				•								•		
<b>International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) (1965):</b> Requires states parties to condemn and work to eliminate racial discrimination.	•												•	•
<b>International Covenant on Civil and Political Rights (ICCPR) (1966):</b> Obliges states parties to respect and ensure foundational civil and political rights, such as the rights to life, due process, and freedom of speech, religion, and assembly.	•			•	•	•							•	•
<b>International Covenant on Economic, Social and Cultural Rights (ICESCR) (1966):</b> Obliges states parties to progressively realize foundational economic, social, and cultural rights, such as the rights to health, education, culture, and an adequate standard of living.	•			•	•	•				•		•	•	•
<b>UN Declaration on the Rights of Indigenous Peoples (2007):</b> Defines the individual and collective rights of indigenous peoples, including their rights to cultural and ceremonial expression, identity, language, employment, and health education.	•			•								•		

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<b>Interpretation and Implementation Documents</b>														
<b>Committee on Economic, Social and Cultural Rights, General Comment No. 11 (1999):</b> Interprets ICESCR Article 14 on the right to primary education.				•	•									
<b>Committee on Economic, Social and Cultural Rights, General Comment No. 14 (2000):</b> Interprets ICESCR Article 12 on the right to the highest attainable standard of health.					•									
<b>Committee on Economic, Social and Cultural Rights, General Comment No. 21 (2009):</b> Interprets ICESCR Article 15 on the right to take part in cultural life.				•	•									
<b>Human Rights Committee, General Comment No. 25 (1996):</b> Interprets ICCPR Article 25 on the rights to participate in public affairs and to vote.				•	•									
<b>Human Rights Committee, General Comment No. 31 (2004):</b> Interprets ICCPR Article 2(1) on the covenant's general obligation.						•								
<b>Inter-American Court of Human Rights, Case of the Kichwa Indigenous People of Sarayaku (2012):</b> Recognizes, inter alia, a duty to consult with indigenous and tribal communities regarding actions that affect their rights.											•			
<b>UN Compensation Commission decisions (1991):</b> Resolve claims associated with Iraq's invasion and occupation of Kuwait in 1990.				•	•									

**International Environmental Law Sources**

**Principles for Assisting Victims of Toxic Remnants of War**

Sources	1. Purpose of Victim Assistance	2. Definition of Toxic Remnants of War	3. Definition of Victim	4. Types of Harm	5. Types of Victim Assistance	6. Responsibility	7. Exchange of Scientific and Technical Information	8. Collection and Dissemination of Information	9. National Strategy	10. Capacity Building	11. Accessibility	12. Inclusivity	13. Non-discrimination	14. Transparency
<b>Legal Instruments</b>														
<b>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989):</b> Establishes a framework to regulate the movement of hazardous waste between states.						•								
<b>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) (1998):</b> Grants the public participatory rights related to government decision-making on environmental matters.	•						•							
<b>Guiding Principles on Large Scale Land Based Investments in Africa (2014):</b> Establishes guidelines to promote responsible and sustainable agriculture in Africa.												•		
<b>Nagoya Protocol to the Convention on Biological Diversity (2010):</b> Creates a framework for the fair and equitable sharing of benefits arising from the use of genetic resources.				•										
<b>Paris Agreement on Climate Change (2015):</b> Creates a framework for mitigating and adapting to climate change.				•										•
<b>Rio Declaration on Environment and Development (1992):</b> Establishes principles to guide sustainable development.							•							

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<b>Legal Instruments</b>														
<b>Stockholm Convention on Persistent Organic Pollutants (2001):</b> Establishes obligations to reduce the production and use of enduring and widely distributed organic pollutants								•						
<b>Interpretation and Implementation Documents</b>														
<b>International Law Commission, Draft Articles on Prevention of Transboundary Harm from Hazardous Activities (2001):</b> Establishes steps states should take to reduce transboundary harm caused by hazardous activities.						•								
<b>International Law Commission, Draft Principles on the Protection of the Environment in Relation to Armed Conflicts (2019):</b> Lays out principles for preventing and remediating environmental damage related to armed conflict.	•				•	•								
<b>Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes (2012):</b> Presents findings and recommendations following mission to the Marshall Islands.			•											
<b>Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes (2015):</b> Discusses obligations associated with the right to information on toxics.							•							

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<b>Interpretation and Implementation Documents</b>														
<b>Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes (2016):</b> Lays out obligations to prevent childhood exposure to toxics.		•												
<b>Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes (2017):</b> Presents guidelines for upholding human rights obligations related to the management of toxics.	•	•					•	•						
<b>Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment (2017):</b> Outlines human rights obligations related to conservation and sustainable use of biological diversity.	•			•										
<b>Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment (2018):</b> Presents Framework Principles on Human Rights and the Environment.							•					•		
<b>UN Environment Assembly, Resolution 3/1: Pollution Mitigation and Control in Areas Affected by Armed Conflict or Terrorism (2018):</b> Calls for prevention and mitigation of the health and environmental impacts of conflict pollution.	•	•		•			•					•		

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## **Confronting Conflict Pollution**

### **Principles for Assisting Victims of Toxic Remnants of War**

Armed conflicts and military activities take a toll on the environment that significantly affects both people and ecosystems. Pollution from armed conflict inflicts severe and long-lasting physical, psychological, socioeconomic, and cultural harm on individuals and communities. Peacetime military activities can leave a similar legacy.

Although international efforts to address the environmental consequences of war have increased, a framework for meeting the needs of those affected by conflict pollution has been absent. The concept of “victim assistance,” which is a widely accepted component of humanitarian disarmament law, can fill that gap.

*Confronting Conflict Pollution* adapts humanitarian disarmament’s norms of victim assistance to the context of toxic remnants of war. It identifies 14 principles designed to meet the short- and long-term needs of those affected by pollution from military activities, during armed conflict and beyond. The report also includes an in-depth commentary elaborating on the principles and providing legal and policy precedent for each.

The new victim assistance framework laid out in *Confronting Conflict Pollution* defines key terms, enumerates relevant types of harm and assistance, establishes a structure for sharing responsibility, highlights elements of implementation, and presents guiding principles fundamental to effective assistance programs. Overall, the 14 principles embody a collective commitment to work towards victims’ full and effective participation in society and the realization of their human rights.