'Towards a Pollution-Free Planet': Input on the implementation of resolution 3/1 **Pollution mitigation and control in areas affected by armed conflict or terrorism**

Introduction

UNEA resolution 3/1 *Pollution mitigation and control in areas affected by armed conflict or terrorism* was the first UN resolution to directly address the health and environmental impact of conflict pollution and the toxic remnants of war. In doing so it underscored the linkages between conflict pollution, environmental degradation, sustainable development and the enjoyment of human rights. It is of paramount importance to build on the norm established by the resolution, and to identify policies that can translate its normative content into actions. By doing so, the resolution could help protect people and ecosystems in areas affected by armed conflicts, and contribute towards addressing wider challenges around environmental security.

By their nature, armed conflicts generate pollution, create the conditions where polluting practices can flourish, and impede the ability of states to address harm.[1] Nevertheless, there are measures that can be taken to help to prevent and minimise the generation of conflict pollution and, where it does occur, to reduce its impact on the health and wellbeing of people and the environment. This is a field where UN Environment has considerable experience, and the Implementation Plan should draw on this. This work would also help build on the recommendations made by UN Human Rights Council *Special Rapporteurs* on toxics and human rights in relation to armed conflicts and the toxic remnants of war.

The recommendations for inclusion in the Plan that are outlined below adopt a temporal approach to the problem, and consider legislative and technical approaches, and the role of partnerships. A number of the recommendations consider the role of UN Environment and reflect operative paragraph nine of the resolution, which requested that the Executive Director *"...explore ways of improving the Programme's work on pollution threats arising from armed conflict or terrorism"*. Our recommendations aim to demonstrate there are numerous opportunities for UN Environment and its partners to contribute towards enhancing the protection of people and the environment from armed conflict.

1. Weir, D (2017) Conflict pollution and the toxic remnants of war: a global problem that receives too little attention, UN Environment, Perspectives, Issue 24: http://wedocs.unep.org/handle/20.500.11822/20298

1. Minimising the generation of conflict pollution before and during conflicts

Context

The weak legal framework protecting the environment in relation to armed conflicts is currently being address by the International Law Commission (ILC), following a request from UN Environment in 2011.[2] It is notable that earlier efforts to strengthen protection in the 1970s and 1990s were driven in part by concerns over conflict pollution: Agent Orange herbicide use in Viet Nam and oil fires in Iraq respectively.

The ILC has proposed a number of draft principles that are relevant to measures to address the harms caused by conflict pollution; for example its principle on *Remnants of war* outlines obligations for the management of both toxic and hazardous war remnants. Further principles on *Agreements concerning the presence of military forces in relation to armed conflict*, *Peace processes*, *Post-armed conflict environmental assessments and remedial measures*, *Remnants of war at sea*, and on *Sharing and granting access to information* could also contribute to guiding post-conflict and military practice relating to conflict pollution.[3]

Moreover, the ILC's draft principle on Measures to enhance the protection of the environment, which exhorts states to take *'effective legislative, administrative, judicial and other measures to enhance the protection of the environment in relation to armed conflict*', provides a general framework for ongoing efforts to enhance protection, including efforts to minimise conflict pollution.

The inclusion of a draft article on armed conflicts in the proposed Global Pact for the Environment could provide a basis for reinforcing the ILC's draft principles: *'States shall take pursuant to their obligations under international law all feasible measures to protect the environment in relation to armed conflicts*.'[4] By addressing obligations under international law as a whole, and not just international humanitarian law, it both reflects the approach taken by the ILC and provides scope for utilising obligations enshrined in environmental and human rights law to minimise harm, including that from conflict pollution.

As resolution 3/1 noted, the practice of state and non-state militaries is one of the key drivers of conflict pollution, for example where it is caused by the *'targeting of natural resources, vital civilian infrastructure, including water filtration facilities, sanitation and electricity networks, and residential properties*'.[5] These forms of harm have become a hallmark of recent conflicts in the Middle East and North Africa,[6] however they could be reduced by measures to improve military practice, in line with the ILC's draft principle above. The International Committee of the Red Cross (ICRC) is soon to publish an update to its 1994 *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict*,[7] and it is anticipated that these will further clarify the obligations on conflict parties to minimise damage to the environment, including that caused by conflict pollution. The guidelines will also provide a framework for outreach and training for state and non-state actors.

2. ILC (2011) Report of the International Law Commission - Sixty-third session: http://legal.un.org/docs/?path=../ilc/reports/2011/english/annex.pdf&lang=EFSRAC
3. Weir, D (2017) *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: http://www.oxfordscholarship.com/view/10.1093/oso/9780198784630.001.0001/oso-9780198784630-chapter-19
4. Global Pact for the Environment (2017) White paper: http://pactenvironment.emediaweb.fr/wp-content/uploads/2017/07/White-paper-Global-Pact-for-the-environment.pdf
5. Preamble, 3/1.
6. Sowers et al (2017) Targeting environmental infrastructures, international law, and civilians in the new Middle Eastern wars, Security Dialogue, Vol 48, Issue 5, pp. 410-430: https://doi.org/10.1177/0967010617716615
7. ICRC (1994) Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict: https://www.icrc.org/eng/resources/documents/article/other/57jn38.htm

It is anticipated that two areas of particular relevance for minimising conflict pollution in the revised guidelines will be in avoiding foreseeable harm to environmentally hazardous infrastructure such as those cited in resolution 3/1,[8] and the environmental standards applied during reviews under Article 36 of Additional Protocol I for the study, development, acquisition or adoption of a new weapon, means or method of warfare.[9] A theme that is unlikely to be addressed in the guidelines but which is relevant is the polluting footprint of militaries during conflicts. UN Environment has been a key partner in efforts to minimise the environmental impact of UN peacekeeping operations,[10] and should utilise its experience to engage militaries on minimising pollution during non-peacekeeping operations, for example in best practice in waste management strategies.

Similarly, while not addressed directly by 3/1, any plan towards a Pollution Free Planet should also consider the polluting footprint of military activities prior to conflicts. A history of environmental exceptionalism, in both legislation and practice, has often seen militaries exempted from domestic environmental standards and international regulations. This has contributed to significant ongoing and legacy problems from pollution linked to the production, testing and disposal of military materiel, and from military training activities.

In addition to approaches that seek to modify the polluting behaviour of conflict parties and militaries, there are also steps that should be taken to mitigate the pollution risks created by conflicts. In the build up to the 2003 Iraq War, and informed by its experience in the 1991 Gulf War, the government of Kuwait implemented a domestic preparedness plan that included steps to minimise environmental risks caused by any damage to oil infrastructure.[11] This model should be examined to identify best practice for states with industrial or high risk infrastructure at risk from or affected by armed conflict to help avoid conflict pollution or to minimise its consequences. Work on prevention and preparedness would align with operative paragraphs three and four of resolution 3/1.

Recommendations

To contribute towards minimising the generation of conflict pollution before and during conflicts, the Plan should:

General:

i). Welcome the work of the International Law Commission and highlight the importance of the progressive development of the legal framework protecting the environment in relation to armed conflicts as a means of minimising and addressing conflict pollution.

ii). UN Environment should support the continued inclusion of an article on armed conflicts in the Global Pact for the Environment which reflects all national obligations to protect the environment in relation to armed conflicts under international law.

Deliverables:

a). Commit UN Environment, in partnership with the ICRC, to disseminating and promoting the revised *Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict* to militaries, with a particular focus on precautionary measures to minimise damage to environmentally hazardous infrastructure during conflicts.

8. Toxic Remnants of War Project (2015) Collateral damage estimates and the acceptability of attacks on industrial sites: https://ceobs.org/collateral-damage-estimates-and-the-acceptability-of-attacks-on-industrial-sites
9. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977, Article 36, New weapons: https://ihl-databases.icrc.org/ihl/WebART/470-750045?OpenDocument
10. UNEP (2012) Greening the blue helmets: environment, natural resources and UN peacekeeping operations: http://hdl.handle.net/20.500.11822/8840
11. Wikileaks (online) Kuwait prepares environment for war, 2003: https://wikileaks.org/plusd/cables/03KUWAIT920_a.html

b). UN Environment should utilise its experience working on reducing the environmental footprint of peacekeeping operations to develop a dialogue with militaries on strengthening environmental standards during non-peacekeeping operations.

c). Examine and identify best practice in the field of pollution mitigation measures in peacetime military activities, including across the lifecycle of military materiel, and in training activities.

d). UN Environment should work with UN partners, states and industry to identify and develop best practice guidelines for preventing harm caused by damage or disruption to environmentally sensitive industrial and public infrastructure during conflicts, and identify and promote emergency response measures.

e). In light of the pollution risks created by the use of heavy explosive weapons in urban areas, UN Environment should contribute to the work being undertaken by UNOCHA, UNODA and the ICRC on the implementation of the UN Secretary General's Agenda for Disarmament.[12]

2. Early identification and increased awareness of pollution risks during conflicts

Context

Historically, security considerations and a lack of awareness over the environmental impact of conflicts have contributed towards a lack of data on conflict pollution, as a result the issue has often been absent from measures to respond to conflict and reconstruction programmes. The early identification of conflict pollution is vital for minimising the threats it poses to public health and the environment. This is also an area where partnerships between UN Environment and civil society are already making a valuable contribution.[13] New methodologies that utilise open source data such as satellite imagery, and information from social media platforms, are allowing civil society and academia to remotely identify, monitor and draw attention to pollution threats and environmental damage far more rapidly than was previously the case,[14] and opportunities for integrating these findings into UN and humanitarian response systems are being developed.[15] UN Environment has already played a role in this field but more should be done to develop and formalise these partnerships further, with a particular focus on the sources of conflict pollution.

The increasing access to remotely gathered data on conflict pollution risks during conflicts is helping to plug the gaps that had been created by the traditional model of post-conflict environmental assessments. They can also contribute towards more comprehensive assessments by helping to create the political conditions that make formal assessments more likely to be undertaken. However, given the importance of field data to help qualify or validate remotely gathered information, more attention is needed to how conflict-affected communities could be empowered to gather data on environmental risks. By utilising the tools and methodologies being created for participatory citizen science, "civilian science" could make a contribution towards the early identification of conflict pollution risks.[16] This is an area that UN Environment should explore in partnership with civil society and academia.

12. Agenda for Disarmament, Protecting civilians against the urbanization of armed conflict, Action 15: Share policy and practice to protect civilians: https://www.un.org/disarmament/sg-agenda/en/action/15
13. TRWN (2017) Network member PAX wins award for work on environmental crises in armed conflict: http://www.trwn.org/pax-wins-award-for-work-on-environmental-crises-resulting-from-armed-conflict
14. PAX (2017) Living under a black sky: https://www.paxforpeace.nl/publications/all-publications/living-under-a-black-sky
15. Environmental Emergencies Centre (online) Coordination of Assessments for Environment in Humanitarian Action http://www.eecentre.org/assessments/about.html
16. See for example: Phys.org (2018) New device to protect communities in Colombia from unsafe water: https://phys.org/news/2018-06-device-colombia-unsafe.html and TRWP/PAX (2016) Using citizen science to asses environmental damage in the Syrian Conflict: https://www.bellingcat.com/resources/how-tos/2016/01/22/using-citizen-science-to-assess-environmental-damage-in-the-syrian-conflict

Determining the pollution risks from particular incidents during conflicts has already been aided by the UN Environment/OCHA Joint Unit's FEAT classification system for environmental emergencies.[17] Utilising UN Environment's past experience, and cases from recent conflicts, there is potential for this approach to be applied to a specific system for conflict pollution in order to aid the rapid determination of risks and initial responses. Examples that it could address include critical infrastructure hazards (see recommendation 1.d above), the risks associated with urban warfare (see 1.e) and the ecological risks from particular forms of conflict pollution.

In spite of these developments, UN Environment has often been slow to publicise and raise awareness of pollution threats during active conflicts.[18] While this reticence is understandable in light of past political sensitivities and field security concerns, in our view resolution 3/1 provides a much clearer mandate for UN Environment to take a more active role in raising awareness of conflict pollution threats before, during and after conflicts.

Recommendations

To contribute towards the early identification and increased awareness of pollution risks during conflicts, the Plan should:

General:

i). Require that UN Environment utilise the mandate afforded by resolution 3/1 to raise greater awareness of conflict pollution risks during conflicts.

Deliverables:

a). Commit UN Environment to strengthening its partnerships with relevant civil society organisations and academia to enhance the remote monitoring of pollution risks during conflicts, for example by increasing shared access to satellite imagery.

b). Require UN Environment to enhance its partnerships within the UN system and with relevant civil society organisations to ensure that data on pollution risks is properly integrated into humanitarian response systems.

c). Provide for UN Environment to work with academia and civil society organisations to develop participatory data collection methodologies and tools for use by communities affected by conflict to collect data on conflict pollution.

d). Commit UN Environment to working with partners to develop accessible guidance on quantifying the health and environmental risks posed by common forms of conflict pollution for use by stakeholders including national authorities, international agencies and civil society organisations.

3. Addressing conflict pollution during early recovery and reconstruction

Context

The low priority afforded to the environment during conflicts is often mirrored in the post-conflict phase. Post-reconstruction planning often lacks an environmental focus. This results in few comprehensive approaches that include pollution, environmental damage and their long-term impact

17. Environmental Emergencies Centre (online) The Flash Environmental Assessment Tool (FEAT): http://www.eecentre.org/feat; see also the application of FEAT in conflict settings by PAX in Iraq: https://www.bellingcat.com/news/mena/2017/02/21/mosul-operation-interim-open-source-assessment-conflict-related-environmental-damage; and Syria: https://www.paxforpeace.nl/stay-informed/news/amidst-the-debris-environmental-impact-of-conflict-in-syria-could-be-disastrous

18. For example, civil society and later international organisations have been monitoring and reporting on environmental risks in eastern Ukraine since 2014. However UN Environment did not publish an awareness raising blog on the chemical industry risks until July 2018.

on human health.[19] This poses a serious challenge to efforts to address or mitigate the impact of conflict pollution during early recovery and reconstruction, particularly where the environmental narratives that develop around conflicts may favour other environmental themes and not pollution.[20] However, improvements can be made by including a robust environmental focus in conflict analysis and reconstruction planning in cooperation with international organisations involved in this process.

Collectively, by raising awareness and aiding understanding, the recommendations outlined in 2 above are a vital first step in tackling under-prioritisation. It is also vital that UN Environment helps secure the resources to ensure that the findings and recommendations of rapid technical or comprehensive assessments are acted upon by the affected state and relevant non-governmental actors. This may require sustained post-conflict advocacy on conflict pollution, in addition to the technical support already provided for capacity building measures undertaken with affected states.

There is also need for more integration between the environment and public health, particularly in terms of monitoring outcomes over the medium to long term. Thought is needed on how UN Environment could work with UN partners such as the WHO, the ICRC and national health authorities on integrating environmental risk data into health registries and responses, as called for by operative paragraph six in resolution 3/1. Expanding environmental data collection through participatory science methodologies - as outlined in 2.c - could contribute towards this objective. Priority should be given to identifying and assisting vulnerable groups and data on harm should be disaggregated by gender in order to address the gender-specific impact of particular forms of conflict pollution.

Community level environmental research during early recovery could also facilitate the more effective inclusion of stakeholders in post-conflict programmes to address conflict pollution. Affected communities should also be fully involved in determining the priorities of interventions and planning remedial measures. More use should also be made of other stakeholders present in the post-conflict space and who may be able to contribute towards identifying and remedying environmental health risks from conflict pollution, either directly or in partnership with affected communities. This could include environmental, humanitarian and mine action organisations, the private sector - where appropriate, as well as UN Environment's traditional partners within the UN system.

Similarly, there is scope for the greater involvement of UN Environment and its expertise in the planning and delivery of remedial measures, for example in the management of rubble and debris. UN Environment should engage with relevant organisations such as the World Bank, the IMF, UNDP and others to ensure that the environment is fully integrated into post-conflict analyses, reconstruction planning, and socio-economic reconstruction, including specific funding to tackle conflict pollution and to restore environmental governance. More effective partnerships in this field could help contribute to more sustainable outcomes for common sources of conflict pollution.

As many sources of conflict pollution are not the direct result of conflicts but are instead an indirect result of the collapse of environmental governance during them, UN Environment's assistance to states recovering from conflict should continue to make rebuilding governance a priority. However, this should not only include support for state-level priorities such as the implementation of relevant MEAs but should also extend to local initiatives and so contribute towards improving the conditions of affected communities. Doing so will require more effective partnerships between elements of the UN system. It may also require that there is a greater focus on making the case for, and supporting alternative livelihoods, where communities have resorted to polluting or unsustainable coping

19. Positive examples of this can be found DFID (2018) Environmental risks in Iraq: https://www.gov.uk/dfid-research-outputs/environmental-risks-in-iraq; World Bank (2017) The toll of war: The economic and social consequences of the conflict in Syria: http://documents.worldbank.org/curated/en/811541499699386849/pdf/117331-WP-v2-PUBLIC-The-Toll-of-War.pdf
20. CEOBS (2018) The slow violence of pollution in Afghanistan: https://ceobs.org/the-slow-violence-of-pollution-in-afghanistan

strategies to survive conflicts.[21]

Recommendations

To better address conflict pollution during early recovery and reconstruction, the Plan should:

General:

i). Ensure that UN Environment has the resources and capacity to provide support to affected states well beyond the initial assessment phase. This should include greater involvement in field programmes to address different sources of conflict pollution in partnership with relevant actors.

ii). Require that UN Environment champions the environmental human rights of communities affected by conflict pollution, and their full and meaningful engagement in post-conflict environmental projects.

iii). Ensure that UN Environment's post-conflict capacity-building support for environmental governance in states affected by conflict not only addresses national-level priorities but also the needs of affected communities.

Deliverables:

a). Commit UN Environment to working with health partners to ensure that the health consequences of conflict pollution are properly documented in states recovering from conflict, with a particular focus on vulnerable groups and on the gendered impacts of pollution.

b). Commit UN Environment to mapping the opportunities through which different stakeholders in the post-conflict space can contribute to identifying or addressing the risks associated with conflict pollution.

c). Establish a working group with relevant international organisations such as the World Bank, IMF, regional banks, UNDP and international donors to ensure that an environmental lens is fully integrated into post-conflict reconstruction analyses, financing and planning to ensure the remediation of conflict pollution and the restoration of effective environmental planning and governance.

4. Responsibility and liability for conflict pollution

Context

To date, there are relatively few examples of where states have been held liable for the health and environmental consequences of conflict pollution. The most well-known of which is the UN Compensation Commission established in the wake of the 1991 Gulf War, and which addressed, *inter alia*, the impact of oil spills and fires on the surrounding region.[22] There is also limited practice from bilateral agreements, such as the US funded remediation of dioxin contaminated sites in Viet Nam.[23] However, as regimes providing pathways to accountability for environmental harm have been found to have a deterrent effect on polluters, this is a field that should be examined in relation to conflict pollution. Nevertheless, it is both politically complex and, as it must consider liability for wrongful acts caused by states, the private sector and non-state actors, also legally complex.

The ILC intends to publish draft principles on *'certain questions related to the responsibility and liability for environmental harm in relation to armed conflicts'* in 2019. These should be reviewed for their relevance to conflict pollution. The recent decision by the International Criminal Court to examine Rome Statute crimes relating to environmental destruction may also provide a means to address

21. PAX (2016) Scorched earth and charred lives – human health and environmental risks of civilian-operated makeshift oil refineries in Syria: https://www.paxforpeace.nl/media/files/pax-scorched-earth-and-charred-lives.pdf
22. See Payne, C (2017) *Developments in the Law of Environmental Reparations - A Case Study of the UN Compensation Commission*, in Environmental Protection and Transitions from Conflict to Peace: Clarifying Norms, Principles, and Practices: http://www.oxfordscholarship.com/view/10.1093/oso/9780198784630.001.0001/oso-9780198784630-chapter-15
23. USAID (online) Environmental remediation in Viet Nam: https://www.usaid.gov/vietnam/environmental-remediation

accountability for severe cases of conflict pollution:

> *'The impact of the crimes may be assessed in light of, inter alia, the increased vulnerability of victims, the terror subsequently instilled, or the social, economic and environmental damage inflicted on the affected communities. In this context, the Office will give particular consideration to prosecuting Rome Statute crimes that are committed by means of, or that result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land.'*[24]

While the international legal framework is developing slowly, opportunities should also be identified at the national level. These should include legal structures capable of deciding on environmental human rights violations linked to conflict pollution, and of providing some means of redress for affected communities and individuals. These could be greatly helped by capacity-building measures in affected states to ensure that long-term health outcomes are properly documented and recorded, and measures to ensure the meaningful procedural involvement of stakeholders (see recommendations 3.b and 3.c). This would be in line with the recommendations of the UNHRC's Special Rapporteur on toxics and rights, who found that states should:

> *'Work with relevant national and international organizations on monitoring and identification systems for hazardous remnants of armed conflict. Governments must provide an effective remedy for hazardous remnants of conflict and other military activities, including funding for full remediation, comprehensive medical treatment and compensation for individuals experiencing the effects of exposure to these materials;'* [25]

Recommendation

To examine questions of responsibility and liability for conflict pollution, the Plan should:

Deliverables:

a). Commit UN Environment, in partnership with relevant organisations, to reviewing the existing legal framework for liability, accountability and victim assistance for conflict pollution and to identifying gaps and opportunities that could direct its progressive development.

24. ICC (2017) Office of the Prosecutor - Policy paper on case selection and prioritisation: https://www.icc-cpi.int/itemsDocuments/20160915_OTP-Policy_Case-Selection_Eng.pdf

25. UNHRC (2016) A/HRC/33/41, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes: http://undocs.org/A/HRC/33/41