HUMANITARIAN LAW & POLICY

Climate and environment considerations for weapon bearers in armed conflict

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Why should parties to a conflict care about climate change and the environment? This is a question that is frequently raised when discussing the intersection of climate, conflict and the environment. The connection may not be obvious, but the case for environmental protection and considering climate change during conflict is only getting stronger and more relevant.

In this post, Sarah Gale, Technical Adviser with the Red Cross Red Crescent Climate Centre, explores climate and environment considerations for weapon bearers through some important considerations during situations of conflict, emphasizing the importance of respecting the rules of international humanitarian law around the protection of the environment and looking at some of the ways climate change considerations might feed into these rules.

The most recent Intergovernmental Panel on Climate Change (IPCC) Working Group II *report* highlights the significant and increasing threat climate change is presenting to our wellbeing and the health of the planet. The International Committee of the Red Cross (ICRC) has explored how this existential

threat can be relevant for weapon bearers during situations of conflict through the publication of the updated *Guidelines on the Protection of the Natural Environment in Armed Conflict*, outlining existing obligations found in international humanitarian law (IHL). The International Law Commission (ILC) has also recently adopted a set of principles for the *Protection of the Environment in Relation to Armed Conflict*, which looks not only at rules applicable during armed conflict, but also measures that should be taken prior to and after conflict.

Even in the context of armed conflict, climate change and the environment should be included as an important consideration for weapon bearers in the pursuit of protecting those who are not or no longer participating in hostilities. Climate change and environmental damage can lead to consequences with a direct impact on civilian lives. Climate change-induced disasters during a conflict may result in displacing civilians in areas of active hostilities, exposing them to potential harm. Environmental degradation and damage exacerbated by climate change may limit access to resources necessary for survival such as food and water, which results in having both short and potentially longer term consequences. *Research* has found that changing ecosystems, alongside increasing extreme weather and climate events means millions of people are susceptible to reduced water security and acute food insecurity. Those living in situations of armed conflict are considered to be more vulnerable to these changes, with limited capacity to adapt. When looking at the practical implications in our changing world, the importance of understanding the connections become increasingly visible.

Protection of the natural environment

To begin, parties to a conflict must protect the environment in accordance with their obligations under IHL, which contains specific rules on the protection of the environment. Not only is the natural environment considered to be comprised of civilian objects (*Guidelines, para 18*) which must not be attacked, there are also specific rules, such as taking *due regard for the natural environment in military operations*. These are rules, like any other rule of IHL, which parties to a conflict are obliged to follow. In essence, complying with one's legal obligations is one of the reasons weapon bearers should care about the protection of the environment during armed conflict.

If the natural environment is damaged during fighting, civilians may be at risk of losing access to essential resources and infrastructure necessary for survival. For example, in Libya there was a *study* examining the correlation between seed germination in agricultural areas and phytotoxicity of soil contaminated with heavy metals from landmine explosions. It was determined that the rate of seed germination significantly decreased closer to explosion sites where the soil contained higher levels of heavy metals. This demonstrates the potential for substantial environmental damage in hostilities and the impact this has on essential civilian activities, such as food production. The more studies like this one that are conducted on the extent and scope hostilities can impact the environment, the more foreseeable such civilian damage becomes, placing a greater onus on militaries to foresee and therefore minimize such harm.

In conflict, building acceptance and legitimacy within the population is often an important goal for parties to the conflict, particularly *non-State armed groups*. When the environment is damaged due to fighting, this may have an acute impact on communities, such as a decrease in productive agricultural land, with the potential of de-legitimizing weapon bearers. If a community faces such consequences from environmental damage, this could diminish support that may have been relied on by a party to the conflict. Connected to this are local customs which might *reflect the values* in IHL on protecting the environment during conflict. *For example*, the Ogaden National Liberation Front (ONLF) has stated that they will, 'confront all initiatives, which negatively impact our environment as a matter of national duty to protect our environment for future generations'. With such considerations in mind, it is no surprise that certain non-State armed groups incorporate environmental protection into their codes of conduct.

Interrelated to the protection of the natural environment and essential infrastructure is the ability of civilians to cope with climate change, particularly in the midst of conflict.

Climate change as a vulnerability multiplier

Climate change can *exacerbate vulnerabilities* in situations of armed conflict where access to resources may already be limited due to the conflict. Understanding this is important for weapon bearers, not only as an important consideration for gaining legitimacy, but it also has the potential to impact assessments made in planning and conducting attacks.

For instance, damage to infrastructure as a result of hostilities may exacerbate the strain infrastructure is already facing due to climate change (i.e. damage to water infrastructure in areas experiencing climate shocks such as droughts). Alternatively, damage to infrastructure might decrease the capacity for water systems to be able to adapt to climate change and operate when climate shocks do occur, because of damage sustained to the system. If there is the potential for such infrastructure to be damaged during an attack, assessments of proportionality should take this into account. In the context of climate change-induced drought, incidental damage to water infrastructure may be exponentially more excessive due to the drought and the necessity of the existing water infrastructure as an essential climate change adaptation measure. Incidental damage, when considering elements such as drought, may become excessive due to the additional burden placed on civilians in light of climate change. Yemen for example, one of the most water scarce countries in the world, has faced significant challenges from *damage to water infrastructure*. The consequences of the damage are exacerbated due to *climate impacts* such as drought, severely affecting access to water supply, impacting civilians access to clean water, food production and health.

Such IHL implications of climate change are also relevant when considering *the rule* prohibiting widespread, long-term and severe damage to the natural environment. The conditions establish a high threshold for damage to be considered in contravention of the rule. As stated in *the ICRC Guidelines*, contemporary understandings of environmental harm and the interdependency of environmental processes need to be taken into account. As scientific knowledge progresses on the already established connection between environmental damage and climate change, this can not be ignored by parties to a conflict. As an example, if a means or method of warfare causes damage to wetlands, *important areas of biodiversity* in the fight against climate change, the threshold of widespread, long-term and severe damage may be easier to meet. Damage may be considered to be more 'widespread' when considering the indirect effects beyond the geographical area, particularly if the wetland area can no longer function as an area of carbon storage. The 'long-term' nature of this harm may also become more likely when considering the potential irreversible loss of carbon storage, necessary for reducing global carbon emissions. The 'severity' must be connected to the loss of carbon storage in the individual wetland which has been damaged. While this may be difficult to measure, the overall context of climate change and the importance of wetlands in minimizing global carbon emissions can inform the assessment.

Aside from considerations relevant for hostilities, climate change also plays a potentially important role for parties to a conflict in *places of detention*. Parties to a conflict have an obligation to provide *adequate conditions of detention* for persons detained due to the conflict. This means that detaining authorities need to include the risk of potential climate hazards to ensure detainees are not exposed to climate change induced-hazards such as floods, landslides or heatwaves. If they are exposed to such hazards, detaining authorities must ensure they are still able to meet their obligations around the conditions of detention.

Climate change is altering the dynamics and landscapes in which armed conflicts take place both physically and socio-economically. The examples touched on are just some of the many considerations that armed actors need to take into account in this changing reality. This places both a responsibility and opportunity on weapon bearers to minimize the negative impacts and at the same time, allow for civilians to adequately adapt to the challenges presented by climate change. For example, armed actors are increasingly operating in areas experiencing climate shocks and disasters. Supporting civilians and those hors de combat to *cope with the impacts* is one step in paving the way for adaptation, and another tool to build legitimacy amongst a population.

Practical implications

Considering the importance to the well-being and safety of civilians and those hors de combat of protecting the natural environment and the vulnerability multiplier posed by climate change, weapon bearers have an important role to ensure those affected by hostilities and/or under their control are able to mitigate and adapt to climate change realities. The below are just a few examples of how armed actors could both meet their obligations under IHL, as well as to minimize some of the potential consequences from the intersection of armed conflict with climate change and environmental degradation, experienced by civilians and those hors de combat.

The *ILC Draft Principles* establish key measures to be taken, including the designation of protected zones for areas off environmental importance for the purpose of protection from hostilities. To note, the designation of these zones is not intended to displace or uproot communities as a matter of conservation, but rather to indicate to warring parties an area of special protection from attack, much like the designation that exists for *cultural property*. The creation of protected zones can be made either in peacetime, or during armed conflict. This is of particular relevance when these areas play an important role in climate change mitigation, such as wetlands, where designations could have a positive long-term impact.

Local ceasefire agreements could also be established between parties, such as those envisioned in *Geneva Convention I, Article 15*. For non-international armed conflicts, *Common Article 3 to the Geneva Conventions* states that parties to the conflict, 'should further endeavour to bring into force, by means of special agreements, all or part of the other provisions of the present Convention'. The creation of special agreements under Common Article 3 are *anticipated* by this provision, which may cover broader norms then those specifically established by the Geneva Conventions. These agreements could be used in areas experiencing climate hazards such as droughts, to allow safe passage for teams to repair or construct essential climate smart infrastructure, ensuring civilians have access to water. In case of climate disasters such as floods, local agreements could be used to ensure civilians are able to reach safety.

Detaining authorities should develop climate risk mitigation plans for places of detention. These plans would prepare detaining authorities for potential climate hazards specific to their location and ensure adequate living conditions for detainees in accordance with international obligations. For example, in the case of flooding, detaining authorities should ensure places of detention are protected to the extent possible from the impacts of potential floods where this is a risk. If flooding does occur, there should be effective *evacuation plans* for detainees and the detaining administration to reach safety. Or, in the face of growing food and water insecurity, places of detention, where possible, could integrate sustainable food production approaches on prison grounds to supplement potential shortages. Detaining authorities should also facilitate the construction and repair of climate smart infrastructure to ensure detainees are able to access adequate water for consumption and hygiene needs. As climate change threatens the safety and well-being of individuals, detaining authorities with the responsibility for those detained due to the conflict must minimize the risk to the extent possible for those under their control.

As a baseline, parties to a conflict must adhere to their obligations on protecting the natural environment, considering the augmenting impacts of climate change on damage to the natural environment or essential infrastructure. Commanders and those responsible for planning and conducting attacks, must integrate this reality *into military operations*. More generally, decision makers should build understanding through adopting measures to train and build capacity on the environmental impact of hostilities, and how climate change plays a role as a potential amplifying effect for incidental damage. Efforts to improve understanding must be translated into action and reflected in military doctrine including rules of engagement and codes of conduct. In a specific context, there should be efforts made to map out areas of environmental fragility and a climate risk analysis conducted to understand climate risks and potential exacerbating impacts on infrastructure which might be particularly vulnerable or especially important to cope with climate shocks. While the task may seem daunting, support can be provided by climate and environment experts and organizations with an interest to protect civilians. Using *open source data*, which is becoming increasingly accessible, is another important resource for armed actors, particularly those which may not have the capacity to conduct their own assessments. As our collective understanding on the impacts of environmental degradation and climate change grows, so does the expectation on armed actors to foresee and minimize harm in the context of armed conflict.

Conclusion

As we understand the growing impacts of climate change, there is further research that needs to be dedicated to these questions. Climate change adds additional pressure to communities in situations of armed conflict. Parties to a conflict can have a direct impact on the ability of civilians and those hors de combat to mitigate and adapt to climate change and climate hazards. Ensuring rules are respected on protecting the natural environment and essential civilian infrastructure is an effective place to start.

This knowledge challenges humanitarian organizations, typically addressing acute short-term needs, to understand the longer-term impacts of climate change in the settings where they operate. Humanitarian interventions need to consider complexities around the intersection of environmental

protection, climate change and conflict. At the same time, it provides an opportunity for organizations to engage. Building a mutual understanding of the unique, context-dependent impacts and challenges will be essential.

These questions which concern all of us, can act as a bridge between armed actors, civilians and humanitarians, as we seek together to mitigate and adapt to the uncertain global and local realities of climate change.

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