PAX, the largest peace organisation in the Netherlands, together with Syrians for Truth and Justice, PÉL - Civil Waves, Humat Dijlah and the Sudd Environment Agency, active in Syria, Iraq and South Sudan respectively, have been documenting for years conflict-related environmental degradation involving water resources and its adverse effects on the health, livelihoods and peaceful coexistence of the local communities depending on them. In this joint submission of input to the thematic report by the Special Rapporteur on the rights to water and sanitation, we elaborate on the complex interrelation between water resources and conflict, based on the experiences in Syria, Iraq and South Sudan. We also outline the key challenges the local communities are facing regarding the use and management of transboundary water resources and provide recommendations for policy efforts to improve protection and management of water ecosystems in fragile and conflict-affected countries.

Conflict impacts of water scarcity and inappropriate water management

The consequences of wars and armed conflict on access to water and broader environmental degradation continue to impact millions of people. These impacts are widespread and complex, often of transboundary nature, and failed to be properly protected and addressed by armed actors and in post-conflict recovery efforts. Water shortages and failing water management issues can pose a grave threat to societal security, fueling conflicts and exacerbating clashes between the domestic communities, but they also can be used as a weapon of conflict by warring parties in either domestic or international conflicts.

On the one hand, the dire state of water quality, scarcity, and inadequate infrastructure in communities creates a palpable sense of tension and unrest. Families are forced to rely on a single water source, leading to desperate confrontations involving gunfire due to its scarcity. In Iraq, the 2018 turmoil in Basra was an illustrative example of conflict predominantly centered around water scarcity, as documented by human rights organizations. Decades of war and weak post-war governance, and the lack of regulations of the massive fossil fuel industry posed significant problems for Iraqi communities facing continuing threats from polluted rivers. Meanwhile, decrease in rainfall and transboundary water politics limited the flow of water in the Euphrates and Tigris River, with serious implications for water resources in Iraq, including irrigation water and the Iraqi Marshes and the Marsh Arabs, living in this unique protected wetland in the south of Iraq.

According to the study by the University of Basra, around 10% of local community conflicts stem from water disputes. Although there was a significant decrease in incidents during the flood seasons after 2019, the past few years have seen a resurgence of such events in southern Iraq. As a result of limited water resources, there is a trend of relocation from rural to urban areas from the side of farmers giving
up agriculture and moving into the periphery of rapidly expanding urban areas in the south. This trend tends to create more tensions as cities have limited capacity, infrastructure and job opportunities for the newcomers. In other areas such in northern Iraq, ongoing pollution of rivers by dumping (untreated) wastewater from factories, sewage facilities, oil refineries, towns and villages is continuing, to despair of local communities and environmentalists.

In South Sudan, competition over water resources by the cattle herder communities during the dry season is the major cause of the communal conflicts. Conflicts over insufficient water and grazing have been happening in Lakes State, Unity State, Warrap State, Jonglei and Upper Nile states. The lack of effective leadership in the country and corruption has undermined South Sudan’s capacity to apply law enforcement for peaceful co-existence among the cattle rearing communities sharing cross-border transboundary water. These conflicts over scarce water resources have fueled ethnic polarization in the country, leading to inter-communal violence. Other types of transboundary water issues relate to water quality, infrastructure development and environmental impacts of oil pollution. In the latter case, there are serious risks associated with the flooded oil fields in South Sudan, partially linked with the climate crises but also with weak post-war governance and oversight that is posing additional risk to water sources, both drinking water for communities and cattle, and wider environmental degradation from oil industry-related hazardous substances.

On the other hand, water resources are often weaponized and politicized in ongoing armed conflicts, which adversely affects the lives and livelihoods in communities relying on them. For example, in Syria, Turkey and affiliated Syrian armed opposition groups interrupted water supplies from the Alok Water Station several times since they controlled the Ras al-Ayn/Serê Kaniyê region, northeastern Syria, in October 2019. Using water to pressure the Syrian Democratic Forces (SDF), they denied locals and several IDP camps throughout al-Hasakah province access to water at the peak of the COVID-19 pandemic. In 2021, Turkey-backed armed groups built dams in the Khabur river, halting the water flow from the occupied areas to SDF controlled areas, impacting agriculture and food security. Also in northeastern Syria, the SDF has dug defense underground tunnels across its territories as a percussion for potential hostile attacks. The digging work damaged already vulnerable water and sewage networks, allegedly resulting in the contamination of drinking water. In al-Ghab Plain, controlled mainly by the opposition, the Turkistan Islamic Party (TIP) dug up water pipes feeding the dams of the plain from the Orontes/Asi River. Those pipelines are the backbone of the irrigation systems in the region, whose economy is largely agricultural. In 2016, the Syrian government seized properties around the Fijeh Spring Water Station in Wadi Barada, in Damascus suburbs, claiming it was for spring protection. The claims paved the path for large-scale property rights violations, denied locals displaced by earlier hostilities access to their homes, and deprived many of their livelihoods since they were prevented from running their businesses in the protective zone.

The severity of the water crisis remains a significant contributor to food insecurity, eroding livelihoods and migration in search of resources. Water shortages and poor Water, Sanitation, and Hygiene (WASH) operations have also caused waterborne diseases in informal IDP camps in the northern parts of Syria. Moreover, low water levels also pose risks to the power supply, as nearly 3 million people in northeastern Syria get their electricity almost exclusively from three hydroelectric power plants on the Euphrates River. In addition to this, there are severe pollution problems from the oil industry, which is

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1 For a more detailed analysis of the water management issues in the northern and eastern Syria, along with a list of policy recommendations, please see a separate submission by PÊL-Civil Waves.
the largest resource for the local authorities. Both direct damage from strikes during the conflict, unsustainable coping mechanisms, including makeshift oil refining, and post-conflict weak governance of the oil infrastructure are leading to severe contamination of local and transboundary rivers, such as Khabur and Euphrates, from dumped oil waste water and cross-river fuel smuggling.

Climate change effects on water-related conflict

Climate change serves as a catalyst for water-related conflicts, given its contribution to environmental degradation and its broader societal implications, compounded by weak government response. In northern and eastern Syria, low rainfalls and higher-than-average temperatures have created drought-like conditions, threatening to exacerbate the already dire living conditions of the communities in these areas, especially in the absence of draught-resistant strategic policies and infrastructure. Draught also jeopardizes a primary source of income for the farmer communities in Syria since a million hectares of Syrian agricultural land are rainfed. Additionally, as an indirect repercussion, climate changes and shrinking water resources are causing the further erosion of Syrian livestock, with large numbers of breeders being displaced or unable to afford the high costs of raising animals.

In South Sudan, heavy floodings cause displacement of the population, especially, the cattle rearing communities, to high grounds, causing conflicts over dry lands, as host communities cannot accommodate the displaced ones.

In Iraq, the areas in southern part of the country, including the upper regions, are particularly susceptible to conflicts over water-resources if the current situation persists.

Challenges of inclusive participation in the management of water resources

The key challenges in all three countries relate to systemic disfunctions of the state institutions responsible for water management, lack of transparency in the governments’ reporting and limited opportunities for participation of non-government actors in water resources management.

For instance, in Iraq, coordinating committees to address water-related matters have not been established between ministries, despite the shared responsibility across multiple departments. The Supreme Water Council, established with the intention of addressing such issues, has failed to make effective and meaningful decisions since its formation. Transparency in the government’s reporting on water management issues remains elusive, while the Ministry of Water Resources deems such disclosures as threats to water security. Meanwhile, civil society must rely on personal connections within ministries to discreetly obtain relevant information, which severely inhibits NGOs’ and activists’ ability to speak up against malpractices in environmental governance. Moreover, local civil society operates under tremendous pressure while attempting to establish connections with international organizations or to monitor environmental violations by government institutions, as evidenced by the experiences of the Humat Dijla Association.

South Sudan also faces the lack of formulated policies and limited institutional capacity to ensure proper regulation of water management, coupled with wide-spread corruption. Additionally, local communities and civil society representatives experience limitations in their freedom of expression, preventing them from holding public discussions on sensitive matters related to water resource management. Meanwhile, neither oil pollution nor plastic pollution, which constitute the key
challenges for South Sudan’s water resources and may affect communities in the neighbouring countries, have been addressed by the government or by implicated oil operating companies.

In Syria, the key challenge is that Syrian water resources are highly involved in the armed conflict and hence, management of these resources and their facilities are subject to the territorial controls of the multiple state and non-state actors in the conflict, which continue to perpetrate water-related human rights violations, often lethal. A potential remedy to this situation may consist in demilitarization of water infrastructure and allocation of its management to non-military administrations that would be open to initiate dialogue with affected communities.

**Opportunities for tackling transboundary water management issues**

While the transboundary water management issues are difficult to resolve due to the underlying power dynamics between the forces controlling water resources, weak environmental governance systems, and the lack of inclusive participation of in the water resources management, the opportunities to tackle them may consist in the following set of measures:

1. **Implementation of international standards and mechanisms for management of transboundary water resources.** For instance, in Syria, the UN can establish a water monitoring mechanism to oversee activities involving transboundary rivers and ensure that pre-conflict water agreements with neighboring countries become binding treaties. This particularly concerns agreements with Turkey involving the Euphrates River that remains a site of tension even in Syrian territories where de facto governments rule, as well as dealing with the Tigris River and other water streams entering Iraq from Iran that impact lives and livelihoods. Diplomatic initiatives such as the Swiss-lead Blue Peace in the Middle East are to be applauded. In South Sudan, a solution could be found in the review of the Nile Basin water agreement of 1950s for re-negotiation on transboundary water for each country to have equitable share of water resources. In additions, States should adopt the International Law Commission’s [Protection of the Environment in Relation to Armed Conflict Principles](https://www.icrc.org/en/document/9789789789789789788), and implement the ICRC’s updated [Military Guidelines on Protection of the Environment in Times of Armed Conflict](https://www.icrc.org/en/document/9789789789789789788) and [Geneva List of Principles on the Protection of Water Infrastructure](https://www.icrc.org/en/document/9789789789789789788). This should contribute to improved protection of water infrastructure in relation wars and armed conflicts.

2. **Improvement of environmental governance at the national and sub-national levels.** On the policy level, legal frames regulating the management and protection of water resources should be put in place and implemented, with allocated responsibilities for the national and sub-national authorities. Conflict-affected areas often lack sufficient expertise and resources, and where possible, the international community should support them with relevant capacity and training. The coordination between various government authorities responsible for water issues must be improved, with the enhancement of their institutional capacity. In terms of practical measures, authorities should take steps to clean up polluted water resources, prevent further pollution or destruction of water resources, improve water infrastructure, and construct safe clean drinking plans for the transboundary water communities. In the conflict-torn countries, de facto governments on sub-national level, which remain political and administrative facades for military bodies, shall put their water authorities into operation and seek to cooperate with local councils operating under their mantles. Additional accountability
for international corporations, in particular fossil fuel and other industrial activities, is needed for their operations and impacts in conflicted areas.

3. **Strengthening monitoring and oversight on the ground and delivering justice for water-related violations.** In the situations of multiple parties controlling water resources or in the absence of effective accountability and justice measures by government institutions, international organisations and donors should support extensive documentation and archiving of these violations by civil society and local communities. Moreover, it is crucial to ensure the protection of environmental activists working on these efforts.

4. **Ensuring inclusive participation in water resources management, access to information, and transparency measures.** National and sub-national governments must create platforms for the involvement of the key stakeholders, including local communities and civil society groups in relevant consultations or policies around the management of transboundary water resources, while simultaneously improving their transparency in reporting on the issues around water resources management.

5. **Supporting environmental peacebuilding around transboundary water resources management.** National and sub-national authorities, through support of the UN or other international organisations should explore opportunities for bringing together hostile communities around the joint solutions for the management of transboundary water resources. One suggestion is to develop a review of best-practices, successful (diplomatic) initiatives and nature-based solutions in dealing with water-related challenges.

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