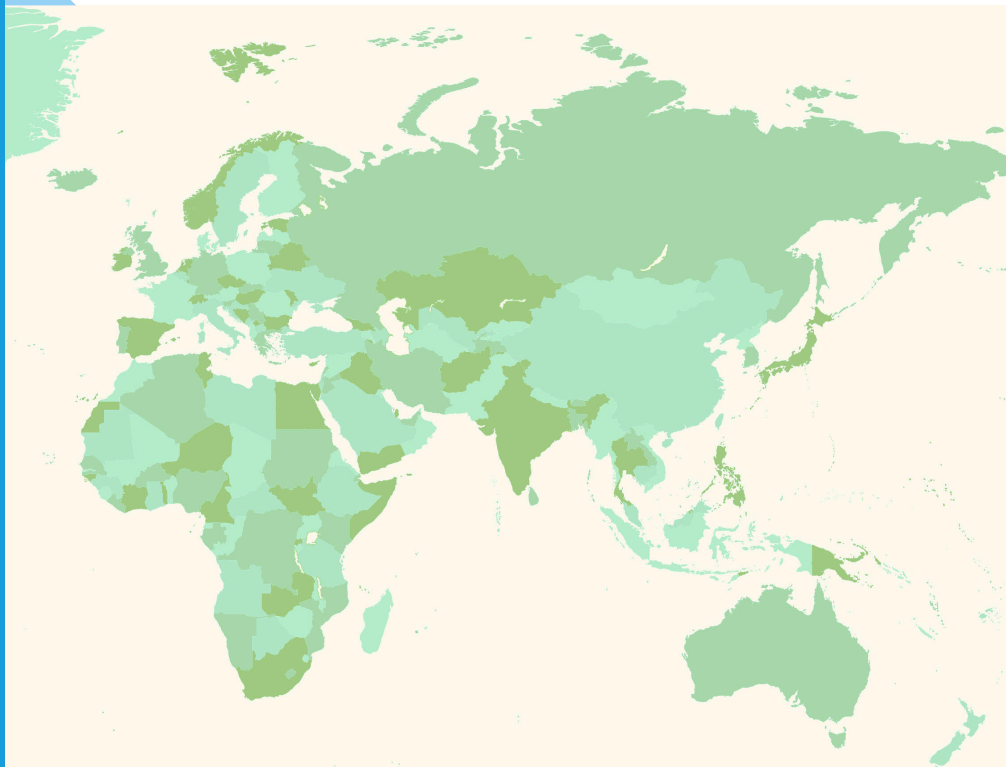


LEFT, RIGHT AND CENTRE

The second article in our research insight series “Left, Right and Centre” outlines the Geneva Water Hub’s positioning on climate change, and more specifically our positioning on the interlinkages between climate change and global water crises. Part 1 of the article maps out three prevalent perspectives on water-climate found in the literature and in international policy activity, and Part 2 proposes where the Geneva Water Hub can add value and expertise through its research, partnerships and policy advocacy moving forward.



n°2

WATER FOR PEACE WHAT CONTRIBUTIONS TO CLIMATE CHANGE ACTION?

by Dr. Laura Turley*, Senior Scientific Officer

1. Background

Human-induced climate change is affecting communities around the world, in large part through changes to the hydrological cycle such as to the timing and intensity of precipitation, evapotranspiration, and rates of discharge of rivers (IPCC, 2023). Floods, droughts, sea-level rise and population displacement threaten livelihoods and the destabilization of already-fragile regions. Consequently, UN-Water (2019) posits that water is the “medium through which many of the impacts of the climate crisis are felt by society” and that “water and climate change are inextricably linked.” Over the past decade, water has garnered more attention in climate policy, for instance as a theme on the official agenda of UNFCCC Conference of the Parties (COPs), and through national climate adaptation programs and strategies.

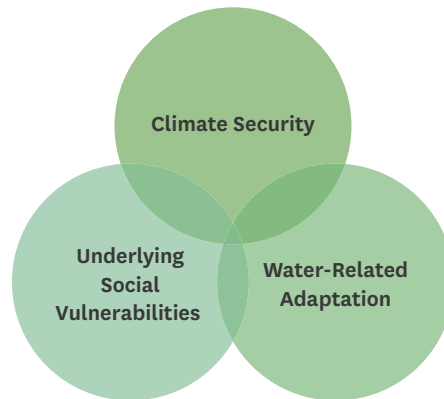
Climate change poses significant challenges for water governance systems the world over. The deeply political, social and economic drivers of water insecurity are exacerbated by climate change (Selby et al., 2022). Moreover, modern water governance and infrastructure systems were often built on assumptions hydrological stationarity or the notion that the future will be much like the past (Milly et al., 2008). Climate change fundamentally refutes this assumption, and requires water systems (both in terms of hard, engineering infrastructure as well as legal and institutional systems on freshwater) that are more flexible, adaptable and resilient.

Across the global water community, thought leaders, non-governmental and inter-governmental organizations, academia and communities of practice

are increasingly “positioning” themselves on the water-climate intersection. While there is some overlap in these groups and their ideas, through a mapping activity

we have summarized three dominant perspectives (see Figure 1). Each of these perspectives is described in turn below.

Figure 1: Three overlapping perspectives on the water and climate relationship



i. Climate Security

The climate security perspective focuses on the risk that climate change presents for peace and security. It forms part of a broader movement to recognize that security threats are not just triggered by traditional territorial or geopolitical events, but also by environmental factors such as water scarcity (Koubi, 2019). Climate change is presented as a major contributor or ‘risk multiplier’ to water insecurity and, together with population growth and rising water demand (especially for agriculture) as driver or exacerbating factor that fuels conflicts over water (e.g. Black et al., 2022; Von Uexkull and Buhaug 2021). Climate change is also framed as a driver of disasters that can be followed by human migration, which can also lead to conflict in or with new host communities. Furthermore, climate change and environmentally-induced instability and resource scarcity can be and are instrumentalized by armed groups and organized crime networks (European Commission, 2023).

This framing is familiar to the water sector; it mirrors the ‘water wars narrative’ that since the 1980s has been linking climate to water scarcity, which – it was posited – would almost inevitably lead to war (Homer-Dixon, 1994). This perspective relies to a certain degree on an environmental determinism that proposes that climate change (however usually only short-term anomalies in weather are studied empirically) will lead to more

scarcity-induced conflict and social breakdown. Examples cited of where climate change is thought to be a driver of conflict through water scarcity come from the Central African Republic, Colombia, Iraq, Mali, and Syria.

Climate change as a risk to security and peace is becoming more and more prominent theme in IPCC Reports (notably the more recent Assessment Report 5 and 6). It is also a clear UN position: the Security Council has discussed climate risk and security with increasing frequency (as recently as June 2023), and it is being slowly mainstreamed into the practices, procedures and operations work of the UN Security Council, despite debates between Member States (Scartozzi, 2022). In 2018, the UN established the Climate Security Mechanism, a joint initiative by the UN Department of Political and Peacebuilding Affairs, the UN Development Programme and the UN Environment Programme to strengthen the capacity of the UN system to analyze and more systematically address the adverse impacts of climate change on peace and security. The climate security framing is also used by prominent political leaders in the USA and Europe, with a recent communication by the European Commission on the climate and security nexus that addresses security issues abroad, and their domestic repercussions (Warner, 2023; European Commission, 2023). Some of the main actors advancing this perspective from civil

society are environmental peacebuilding organizations, such as Peace Research Institute Oslo (PRIO), Stockholm International Peace Research Institute (SIPRI), and also think tanks such as the World Resources Institute (WRI). In the scientific literature on climate change, the war and violent conflict dimensions of climate change are significant in terms of volume (Sharifi et al., 2021). However the link between climate-driven resource scarcity and armed conflict is often tenuous (and dependent on scale of analysis, i.e. scarcity as a driver of local vs. interstate conflict), as is the linkage connecting water scarcity to conflict (Selby & Hoffman, 2014; Koubi, 2006). The challenge is one of attribution, or the challenge of establishing a causal link between climate change, water and conflict, and the use of methods that do not sufficiently take history, context and social dynamics into account. The literature is becoming more nuanced, however, with calls for both case studies and large statistical studies to better account for context, complexity and the multiple pathways that can connect water, climate and security (Von Uexkull and Buhaug, 2021; Buhaug et al., 2023). Indeed the relationship between climate change and conflict remains complex and oversimplification may lead to inappropriate or ineffective action.

ii. Water-Related Adaptation

The water-related adaptation perspective focuses on water as a connector and ‘critical delivery mechanism’ for climate change adaptation, as well as mitigation through reducing emissions and sequestering carbon. As the effects of climate change intensify, adaptation is becoming more urgent, and it has been widely recognized that adaptation to water risks and impacts make up the majority of all documented adaptation efforts (Caretta et al., 2022). Examples of water-related adaptation are conservation or restoration of wetlands, flood protection, water efficiency projects, soil-water management, aquifer recharge – and the building the governance and financing systems to support them. Through adaptation plans at various scales, the water sector is receiving more attention and global investment, and proponents argue that this should be capitalized on for water projects and wider

governance reforms that are needed (Matthews, 2023a; Swedenborg et al., 2022). There is overlap with the climate security framing presented above, in calling for the most vulnerable and fragile states to be prioritized through adaptation funding, and for adaptation as a form of conflict prevention (Crawford & Church, 2020; Tanzler et al., 2010).

The water-related adaptation supporters increasingly focus on the details of implementation, such as on the co-production of knowledge to define and implement projects, on securing financing and on refining ways to monitor, measure and evaluate adaptation interventions. Learning from local levels and taking these lessons to inform international processes is a focus, often based on the principles of locally-led adaptation developed by International Institute for Environment and Development (IIED), for organizations such as the Adaptation Research Alliance and the Global Resilience Partnership (GRP). At the same time, there is recognition that adaptation to climate change has a global dimension. For instance, recent flooding in Pakistan had an impact on food supply in Kenya and the Maldives, which are dependent on other countries for food supplies (SEI, 2022). Connectivity or ‘cascading climate risks’ must be understood to identify the vulnerability of countries to climate change, for instance through reliance on other countries for food or virtual water. The messaging of Adaptation without Borders, for instance, is that climate risks are transboundary and must be addressed as such, and that there can be shared benefits in doing so. In this way, there is a growing awareness of how water adaptation has both local and transboundary dimensions.

Water-related adaptation has become a priority area under the UNFCCC through the Global Goal on Adaptation, the Global Stocktake process, and the implementation of the Sharm-El-Sheik Adaptation Agenda (SAA). Mechanisms that feed into these are the Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). The Alliance for Global Water Adaptation (AGWA) has been a particularly influential player, with a vision for adaptation and mitigation to be mainstreamed into water resources management decision-making processes, policies and implementation. Other prominent actors come from

major NGOs and think tanks such as the Stockholm International Water Institute (SIWI), the Stockholm Environment Institute (SEI), International Union for the Conservation of Nature (IUCN), Carbon Disclosure Project (CDP), and the Global Water Partnership (GWP).

iii. Underlying Social Vulnerabilities

The third framing is the most cautious to directly attribute climate change to water crises, and is weary of the possibility that decision makers may neglect the difficult work of management and governance reforms, blaming climate change for their woes. It is less discretely defined than the previous categories, and comes largely from political ecologists in academia and NGOs. The ‘underlying social vulnerabilities’ framing focuses on the social, political and economic vulnerabilities that underly water crises and conflicts, that exist independently of (and pre-date) anthropogenic climate change. From this perspective, water conflict should be seen in its wider political, economic and historical context, with a focus on access and control over land and natural resources (Benjaminson & Ba, 2021; Benjaminson et al., 2012). It calls attention to the fact that most water conflicts can be directly attributed to human behavior towards and activities involving water, such as unsustainable and

precarious agrarian development strategies, mining practices, or inequitable water-sharing arrangements. Moreover, often it is over-abstraction of water resources, not climate change, that is the cause of water scarcity (Grafton et al, 2022).

Importantly, there is an acknowledgement in this perspective of the wide ranging consequences of climate change. However its role is more clearly relegated to the role of ‘exacerbating factor’. The International Crisis Group (2023), for example, recently drew attention to the profoundly socio-political nature of the water crisis in Iran; water scarcity may have sparked protests in mid-2021, but that this reflected broad discontent in society due to government neglect, corruption and mismanagement, economic uncertainty, unemployment, and ethnic divisions. While anthropogenic climate change will undoubtedly affect weather patterns, food production, rural livelihoods, etc., it is unlikely that climate change-induced scarcities will in themselves become a major cause of conflict (Selby et al., 2022; Zeitoun et al., 2020b). In contrast to the climate security framing above, the mechanisms of the climate’s effect on conflict are understood at most uncertain (Mach et al., 2019). However as the climate security framing becomes more nuanced, paying greater attention to context, there is a (helpful) merging of these two perspectives.

2. Geneva Water Hub – Water and Climate *for Peace*

The Geneva Water Hub is a Centre of Competence on Water for Peace. Given the intimate connection between water resources and climate, and noting the different perspectives that have been advanced over the past couple of decades as outlined in Part 1 above, we seek to define our positioning and identify how we can add value to research, partnerships and policy advocacy through our unique focus on water for peace. We see the following avenues as relevant.

i. Nurturing the Peace Piece

We define peace holistically, as the rejection of violence and social injustice, poverty, discrimination by race or gender, and other forms of violence. In addition to the

absence of violence (negative peace), water for peace is also about promoting equitable distribution of good quality water through robust legal, institutional and policy frameworks prioritizing human dignity, fairness, inclusivity, greater social cohesion, sustainable use and effective management (positive peace).

Decades of research and practice have shown that managing water has, historically, united riparian states (e.g. Wolf, 1998). There is also evidence that water cooperation can spill into broader cooperation and peace in society (Ide, 2019; Barnett, 2019). Climate change, like good water governance, is the ultimate collective action challenge – because everyone will be

better off if we act in a coordinated manner – so there is a great need to bring people together to exchange, problem solve, and create acceptable solutions. At the Geneva Water Hub, we are committed to exploring and promoting instances of cooperation and climate-resilient peace in face of climate change (e.g. Barnett, 2019; Döring, 2020). From a historical perspective, some of the societal responses to environmental degradation (and water issues therewithin) over the past 50 years have been the establishment of innumerable agencies, ministries, departments, basin organizations, NGOs, research and development projects that strive to foster collective action, find solutions and build new institutions to address the challenges.

However just as attributing climate change to conflict can be riddled with assumptions and inconsistencies, so too can claims directly linking climate change and water to peace (Zeitoun et al., 2020a; Selby et al., 2022). As such, we take **a critical approach to water and climate for peace**. This means avoiding strong causal claims about either peace or conflict, and recognizing that **responses to water crises exist along a spectrum from violent conflict to peace and cooperation**. It follows that responses to climate-induced water insecurity (too much, too little, poor quality) will also exist along a spectrum. Our contribution can involve identifying and nurturing instances of cooperative behaviour, and sharing relevant aspects in the hopes of inspiring others to respond towards similarly peaceful ends, as well as encouraging the use of principles for making decisions that are transferable across different contexts.

In terms of research directions, the complexity and place-based nature of climate change impacts, so often water-related, calls into question the value of predictive research activities, as well as research on water governance ‘panaceas’ or nirvana concepts. The nature of studying water for peace requires in-depth, qualitative research that embraces complexity and epistemological pluralism (Beaumont & Coning, 2022). And without advocating for ‘cut and paste’ solutions from one setting to another, there is value to highlighting cases that have lessons and possible pathways to be shared. This can grow from our existing research axes that uses a diversity of approaches, including legal

studies, human geography, institutionalism, critical institutionalism, and political ecology.

ii. Emphasizing the political nature of water for peace

At the Geneva Water Hub, we consider water crises to be inherently political. In this regard, the ‘underlying social vulnerabilities’ approach resonates with our own observations and work, in **emphasizing the political nature of water crises and conflicts**. Determining, for instance, how to share water resources in a context of scarcity is a fundamentally a political question and process, requiring political support to be implemented. Moreover, these political decisions are embedded in social systems with historical, socio-economic, gendered, and racial baggage. Power is also an important variable in determining water-sharing outcomes in local and transboundary settings (Turley, 2023; Zeitoun et al., 2006). In terms of our work, this will mean staying attuned to underlying social vulnerabilities that underlie water crises, recognizing the role of power and politics, and trying to address these directly or indirectly in building water for peace. We can also be a critical voice, reminding the global community to direct climate change projects and funding towards building social and political cohesion, resilience and trust around water governance.

Another way that the Geneva Water Hub incorporates this into our work is by embracing complexity. Climate and resource-related conflict are linked in complex ways, largely indirect, multidimensional and changing over time (Adger et al., 2014). It is an ‘unstructured problem’, even though policy narratives may attempt to structure it by reducing uncertainty (Warner, 2023). Features of complex systems like uncertainty, emergence, and divergence are ever-present, and these must be accounted for – or at least acknowledged – in our research, policy advocacy and diplomacy. We embrace complexity through fostering dialogue and cooperation between climate, water, security and peacebuilding communities, actively working to reduce the ‘silos’ in water governance. We also embrace complexity through facilitating open discussion, attempting to challenge preconceived notions through good listening, and continuing our work supporting bottom-up ‘people’s diplomacy’ among other ways.

Our work must be based on facts, trust, and credible commitments, and be up for periodic review as operating conditions change.

The fact that water crises are deeply social, even if deeply complex, means that we can deploy social or societal solutions. And although the water community is scattered on the nature of the crises, consensus in the water community, for now, might look like agreement that many of our current approaches and institutions for water do not help with climate adaptation or climate mitigation (Matthews, 2023b).

iii. Supporting local actors to build climate resilient water arrangements

The resilience of water arrangements to climate change can be a guiding objective for our work. Resilience is about having the capacities to live and develop, which includes, but is not limited to, the ability to ‘bounce back’ to the same stable state after a shock (Rockström et al., 2023). Resilience must take into account the multifunctional role of water, planetary boundaries, and cross-scale interactions (e.g. Rockström et al., 2014). Coming from ecology, the concept of resilience has now become a frequently-used approach or objective for water governance, in terms of building resilience to deal with shocks and disasters. It also resonates with the efforts of humanitarian, military and peacebuilding communities.

The Geneva Water Hub will support climate resilience through our work, in general, and develop and advance the notion of climate resilient water arrangements (CRESWAs) in particular, at both at transboundary and local scales. ‘Arrangements’ is an intentionally broad term, that captures formal agreements like treaties, as well as less formal operational agreements or ‘ways of doing things’ developed by actors at a local scale. Although resilience has been a focus in water and peacebuilding communities, climate resilient water arrangements is still an underdeveloped notion.

The exact composition of CRESWAs will vary from place to place and be highly dependent on scale. We

will support partners to establish what this might look like in practice. For instance in the Sahel region, resilience also means reactivation of the past practices and collective history, reactivating of community that was lost with colonialism. **The Geneva Water Hub’s contribution to climate change action is to support climate resilience through:**

- **Regional-scale water resource planning.** This includes supporting partners to develop mechanisms and institutions to share benefits at a basin scale, with a focus on the prioritization of water for vital needs and human rights, and the critical role of infrastructure operations therein.
- **Water diplomacy engagement.** This includes listening to and supporting water diplomacy actors in defining their problems and solutions, and adapting climate resilience methodologies to their needs. It includes advocating for broad societal representation in decision-making, and the inclusion of women in water diplomacy.
- **Through international law.** This involves encouraging partners to benefit from the predictability and trust afforded through the use of international law, while also promoting the need for – and potential of – adaptability in legal frameworks related to freshwater in the context of climate change (e.g. Tignino & Kebebew, 2023).
- **Water protection before, during and after conflict.** This includes anticipatory actions, advocacy for the protection of water systems during and after armed conflict, and mainstreaming water issues into peacebuilding, stabilization and recovery.
- **Applying an equity lens to decision making.** This involves taking into account both local conceptions of equity as well as universal principles (Turley, 2023). It also means learning from the climate change community and their focus on the common but differentiated responsibility principle, and on their efforts to prioritize funding and action for the poorest and most vulnerable populations (Pelling & Garschagen, 2019).

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