# Evidence of positive progress on disaster risk reduction in the humanitarian-development-peace nexus

**Thematic report to inform the Midterm Review of the Sendai Framework**

April 2023

Midterm Review
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

UNDRR
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# Executive summary

RSG for Disaster Risk Reduction Mami Mizutori and UNDRR delegation on field visit in Saint Vincent and the Grenadines, 08 February 2023

Photo: UNDRR/Antoine Tardy

# Executive summary

## Moving away from the myopic

The 2022 Global Assessment Report (GAR22) warns us of the perils of taking a myopic approach to risk; risks cross boundaries (geographical, political and sectoral), have cascading impacts, and can be systemic in nature. To address this, comprehensive risk-management approaches are required; approaches which do not shy away from, but seek to grapple with, such complexity. In reality, this means broadening the way we understand and act on the complex interplay of, for example, natural hazards, climate variability and change, pandemic threats, violence and conflict, food insecurity and economic fluctuations, and political change, among others. It also means harnessing the added value of expertise across the humanitarian-development-peace (HDP) nexus.

Disaster risk reduction (DRR) is also an obvious bridge between humanitarian and development action, with DRR-related activities spanning both domains. Integration of DRR into humanitarian action – as has been pursued by UNDRR - is one entry point for advancing DRR in the HDP nexus. DRR also requires continued mainstreaming within development approaches and with climate-change action.

We must also look at the connections yet to be made. A nascent area of work that requires redress is to connect the dots between DRR and peace work. Consideration of the potential for DRR to harness links with those seeking peace outcomes aligns with the United Nations system's evolution towards prevention, peace, and a doubling down of efforts to better support transitions into and out of crises. And yet to date, the links between DRR outcomes and conflict prevention and peacebuilding are nascent.

## About this report

This report contributes to deepening our collective understanding of the potential role of DRR within the HDP nexus; a gap identified as part of the consultative processes leading up to the Midterm Review of the Sendai Framework. We do not focus here on the challenges and barriers to action. Drawing on an extensive review of published material as well as insights from experts, this report showcases examples of disaster-risk management (DRM) policy, practice and financing as it relates to the HDP nexus. This includes: DRR linked to humanitarian action; adapted to conflict and crisis contexts; and collaborations to advance action on systemic risks.

Organized on the four Sendai Framework priorities, it provided examples for over 30 of the Sendai Framework priority areas, leading to over 60 actionable recommendations.

There is still much to be learnt about what DRR in the context of the HDP nexus looks like in practice. Context specificities mean the examples provided throughout this report are not necessarily replicable in other contexts; at least, not without careful consideration. Whether a context is conducive to HDP nexus action will vary greatly, as will the types of DRR actions viable and appropriate in different constellations of systemic risk.

## Summary of the key findings

### Priority 1: Understanding disaster risk

As has been well documented, failure to grasp the multicausal drivers of vulnerability to disaster risk leads to piecemeal understanding of disaster risk and impacts. HDP nexus approaches offer possibilities to overcome the shortfalls of such blinkered approaches. Thus, to understand and act on the complexity of systemic risk, we must move beyond the tendency to take a myopic approach to risk. As the GAR22 makes clear, data-driven risk-management systems in increasingly complex risk environments offer a means to address this common pitfall. Furthermore, pursuing comprehensive risk-management approaches – that bring together action on DRR, climate change adaptation, humanitarian and others, "requires fostering a risk culture based on mutual trust among generalists, specialists and communities at risk" (UNDRR, 2022a: 8). Section 2.1 provides examples that demonstrate this – working across technical specialists to achieve a better understanding of disaster risk.

Under Sendai Framework ***Priority 1: Understanding disaster risk,*** the report shows the increased consideration of violence and conflict as a driver of vulnerability to disaster risk, but also increasingly as a hazard in itself – a societal hazard. It gives examples of enhancements in risk analysis to better understand compound and cascading risks, and examples of NGOs integrating conflict risk analysis into traditional disaster-risk analysis tools. Section 2.1 includes progress on designing composite indices, such as the DRM-Fragility, Conflict and Violence (FCV) Vulnerability Index and new INFORM products, and innovations in the use of mobile technologies to collect data to inform COVID-19 responses in violent and armed conflict contexts. The Comprehensive School Safety Framework is another useful example provided as it originally focused solely on natural hazards and now includes a broad range of current and emerging risks. Finally, details of new training on DRR and humanitarian aid in conflict settings are highlighted, as well as anticipatory action in conflict and crisis settings.

### Priority 2: Strengthening disaster-risk governance to manage disaster risk

As risk is not created in neat sectoral or hazard-based siloes, the governance of disaster risk similarly cannot be compartmentalized – as this leaves open the possibility for negative unintended impacts and setbacks by one risk-management system on another. To address systemic risk, we need to transform our structures of risk governance. Furthermore, the complexity of today's risk landscape necessitates institutional cultures which are comfortable with uncertainty, acknowledging that a range of outcomes is possible. Systemic risk points planners "…to consider 'baskets' of possible outcomes, to be more agile in identifying when changes in assumptions are needed, and to respond to those changes actively" (UNDRR, 2022a: 202).

Under Sendai Framework ***Priority 2: Strengthen disaster-risk governance to manage disaster risk***, the report provides evidence of national and regional DRR strategies and plans citing the role of societal hazards in increasing disaster risk - as in the African regional strategy, and in the intention to pursue dual outcomes for peace and disaster resilience. It provides examples of local-level disaster-risk governance initiatives enhancing community solidarity and trust in Afghanistan. Relatedly, the growing interest in environmental peacebuilding offers new insight into possibilities for enhancing peace outcomes through natural-resource management – which is inextricably linked to DRR in many contexts. At regional level, it provides examples of climate-security-orientated initiatives having relevance for disaster governance in the Sahel and Caribbean, in their linking of resilience, stabilization and recovery.

## Priority 3: Investing in disaster risk reduction for resilience

If we are to deepen our understanding of the complexity of systemic risk (Priority 1), and pursue comprehensive approaches to risk management through transformed disaster-risk governance approaches (Priority 2), then it follows that financial systems will also need to be reconfigured to work across silos. Previous efforts to elucidate the gaps and areas of overlap in the context of financing emergency preparedness, for example, reveal how taking the full suite of available finance - including but not limited to national and international, development, humanitarian, climate and peace funds - could offer means to enhance the complementarity of different funding streams for similar goals. Working across the HDP nexus offers potential to move towards a reconfigured financial architecture that has the capability to advance comprehensive risk-management approaches in the context of systemic risk.

Under Sendai Framework ***Priority 3: Investing in disaster risk reduction for resilience***, the report provides examples of the nascent funds dedicated to pursuing DRR outcomes in crisis and conflict contexts. The most notable example is GFDRR's DRM-FCV Nexus programme, while Agence Française de Développement (AFD) has commissioned an internal review to identify barriers and incentives to enhance financing for DRR in conflict settings. Evidence of adapted financing mechanisms and models is provided, and these offer the opportunity to scale-up preventative and early action to address complex risks, such as anticipatory action, forecast-based finance and crisis modifiers. Section 2.2 also includes illustrations of more flexibility in the use of programme budgets being permitted by donors to adapt programming priorities in response to changing risk contexts, as in Somalia. While internally, illustrations are provided of donors encouraging more connections between their DRR and peace and conflict cadre. There is also a wealth of evidence on dealing with COVID-19 in settings of armed conflict and insecurity, including the potential to utilize peacebuilding hubs for data collection and response. Finally, it provides examples of adapted social safety-net and social-protection mechanisms to elucidate the opportunities such innovations provide to dealing with multiple shocks and stressors.

## Priority 4: Enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction

Improving how we collectively manage disaster risks to take better account of how risks cascade across systems and sectors, requires designing and deploying comprehensive risk-management approaches. It also requires consideration of systemic risk. DRR experts are generally well-versed in the notion that "Societal choices are at the heart of why some individuals and groups are more vulnerable to disasters, experience proportionally greater immediate impacts due to exposure and lack of resources, and face slower recovery and long-term impoverishment" (UNDRR, 2022a: 203). Addressing structural inequality, through development actions, offers one avenue through which to address systemic risk and 'leave no one behind'. Failure to do so means at-risk populations may become trapped in cycles of response and recovery; and made worse through persistent risk creation. Risk-informed development approaches, coupled with comprehensive risk management, offer pathways towards disaster resilience; requiring action across the HDP nexus.

Under ***Priority 4: Enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction,*** the report includes examples of multi-hazard early-warning systems, as in Yemen. Insights from the Lebanese Red Cross show how citizens' concerns over conflict risk can be an entry point for enhancing disaster-management capabilities, and later expanded to include a broader range of hazards. Section 2.4 features efforts to integrate 'do no harm' and conflict-sensitive approaches into DRR programming, as well as examples of psychosocial support being offered to individuals suffering from trauma related to violence and forced resettlement. It provides examples of linking humanitarian and climate action, including the Climate Charter - which

encourages humanitarian agencies to take greater consideration of climate-change risks and impacts into account. Finally, it showcases innovations in adapting disaster recovery tools and methods to conflict settings, such as the UNDP, World Bank and EU guidance on post-disaster needs assessments for conflict settings.

## Headline recommendations

Section 3 provides over 60 detailed recommendations. Outlined below are the headline recommendations:

- **Advancing the HDP nexus:** Demonstrate the value of DRR for advancing the HDP nexus - harness DRR expertise on risk-informed development and the integration of DRR into humanitarian action as a basis for developing comprehensive risk-management approaches to HDP nexus action. Relatedly, address the evidence and practice gap on pursuing disaster resilience and peace.

- **Priority 1:** Work across the HDP nexus to better understand risk, including systemic risk. Use vulnerability as the common thread to explore and reveal how different hazards, shocks and stresses interrelate.

- **Priority 2:** Align risk-governance systems across the HDP nexus – to avoid one risk-management system undermining another. Take into consideration the complementarity of risk-management actions across different sectoral, spatial, temporal and hazard dimensions.

- **Priority 3:** Harness the multitude of financing commitments and mechanisms from across the HDP nexus to positively exploit their added value to pursue shared comprehensive risk-management outcomes. Jointly mobilize additional resources where required.

- **Priority 4:** Design and deploy flexible DRM systems and actions corresponding to the systemic, complex and cascading nature of risks. Utilize systems, institutions and mechanisms from across the HDP nexus to pursue disaster-resilience outcomes.

# 1. Introduction

North Darfur IDP Camp Receives Over 8,000 Newly Displaced Residents

Photo by Albert Gonzalez Farran, UNAMID

# 1. Introduction: the HDP nexus helps challenge myopic approaches to risk

The 2022 Global Assessment Report (GAR22) (UNDRR, 2022a) warns us of the perils of continuing to take a myopic approach to risk; risks cross boundaries (geographical, political and sectoral), have cascading impacts, and can be systemic in nature. Our perceptions and understanding of the interrelationships between vulnerability, exposure and hazards, need to better reflect the complexity of current and future risk landscapes. For example, "Many fragile and humanitarian contexts are characterized by a dangerous combination of conflict, exposure to natural hazards and limited coping capacities…" (Mizutori, 2020). Comprehensive risk-management approaches are required; approaches that do not shy away from, but seek to grapple with, such complexity. In striving towards improved approaches to uncertainty, risk assessments that encompass the full range of risks are required, and in seeking solutions, "'Science can help identify positive pathways, test options and find weak points" (UNDRR, 2022a: xiv).

Finding pathways towards disaster resilience requires avoiding oversimplification of complex risk; and instead improving the way we collectively understand and act on individual and cascading threats and hazards within, and endogenous to, a given system. In reality, this means broadening the way we understand and act on the complex interplay of, for example, natural hazards, climate variability and change, pandemic threats, violence and conflict, food insecurity and economic fluctuations, and political change. This means harnessing the added value of expertise across humanitarian-development-peace (HDP) nexus, "…to address the growing disaster and climate risks in fragile contexts … This is where the vulnerable have the most risk of being left behind." (United Nations press release, 2022).

## The HDP nexus: DRR, an integral component

Operationalization of the nexus has manifested in different ways. Sector-specific guidance is available, for example, health-sector guidance on the HDP nexus exists for protracted and complex emergencies (WHO, 2021). Other examples include donors such as the European Union (EU) developing Resilience Markers to apply to humanitarian projects, to ensure interventions help reduce risks and strengthen coping capacities (European Commission, 2021). Efforts to strengthen the coherence and complementarity of HDP work - while continuing to respect the sustained need for principled humanitarian action - has also led to joint horizon-scanning, early warning and risk monitoring (OECD, 2019). This has been aided by an increase of Multi Year Humanitarian Response Plans (MYHRP), which have helped strengthen shared risk analysis, planning and coordination of responses (UNDRR, 2021).

Integration of DRR into humanitarian action is one means to advance DRR in the HDP nexus. UNDRR has been taking this opportunity. It developed the report Scaling Up DRR in Humanitarian Action (UNDRR, 2020), and a subsequent Checklist for Action (UNDRR, 2021) based on pilot testing in Bangladesh, Haiti (UNDRR, 2021b) and Pakistan (UNDRR, 2021c). Scoping is underway to explore the feasibility of rolling-out the Checklist at country level in South Sudan, Madagascar, Sudan and Nigeria. Looking ahead, it will release a mapping of needs, capacity and resources to translate guidance into reality

(Debling, 2022 – forthcoming), following the Global Review of Disaster Risk Reduction / Risk in 2021 Humanitarian Needs Overviews and Humanitarian Response Plans (UNDRR, 2021a).

Integration of DRR into humanitarian action is just one avenue to pursue. DRR is an obvious bridge between humanitarian and development action, with DRR-related activities spanning both domains. DRR thus also requires continued mainstreaming within development approaches and with climate-change action. This can be achieved by advancing the Guidance Note on Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework (UNDRR, 2020a). Action on comprehensive risk management can also help in this regard. The UNFCCC's (nd) conception of comprehensive risk management includes many overlaps with DRR, including action on extreme and slow onset events through emergency preparedness and early-warning systems, recovery and rehabilitation, and social-protection instruments.

Finally, a nascent area of work that requires redress is to connect the dots between DRR and peace work. Consideration of the potential for DRR to harness links with those seeking peace outcomes – within the context of the HDP nexus - aligns with the United Nations system's evolution towards prevention, peace, and a doubling down of efforts to better support transitions into and out of crises. Building on UN Secretary-General Antonio Guterres' prevention agenda, the Grand Bargain Commitment to Action's New Way of Working, together with the drive towards collective outcomes, has emphasized the value of working more collaboratively with the peace cadre. Appreciating that development, peace and stability do not happen in linear pathways, the HDP nexus agenda offers potential to help advance early warning and early response to crises – given that "…conflict and peace are not entirely separate realities" (Mena and Hilhorst, 2021: np).

This report contributes to deepening our collective understanding of the potential role of DRR within the HDP nexus (for others, see Swiss NGO Platform, 2021); a gap identified as part of the consultative processes leading up to the Midterm Review of the Sendai Framework.

## Report parameters: positive examples of progress

Drawing on an extensive review of published material as well as insights from experts (see acknowledgments list), this report documents examples of DRM policy, practice and financing as it relates to the HDP nexus. This includes, DRR linked to humanitarian action, adapted to conflict and crisis contexts, and collaborations to advance action on systemic risks. Every effort has been made to include evidence from a broad range of risks across different regions.

Organized on the four Sendai Framework priorities, the evidence presented is intended to be illustrative – it does not constitute a comprehensive mapping of all DRM actions. Furthermore the examples have not been independently evaluated and many reflect preliminary findings, are pilots, or are exploratory in nature. It does not focus on the challenges and barriers to action. Readers wanting to know more are pointed elsewhere (for example, details of the barriers to pursuing DRR outcomes in conflict and crisis settings can be found in: Annex 1; Siddiqi and Peters, 2019; Peters et al., 2019c; Xu et al., 2016).

There is still much to be learnt about what DRR in the context of the HDP nexus looks like in practice. The context specificities of risk settings means that the examples provided throughout this report are not necessarily replicable in other contexts; at least, not without careful consideration. What types of DRR actions are viable and appropriate in conflict and crisis settings will change depending on the context (UNDRR, 2019; Peters, 2019). Hence, "…some contexts may be conducive to greater alignment of humanitarian, development and peacebuilding planning and programming than others" (OECD, 2019: np).

# 2. Evidence and findings

Maputo Evacuation Drill-003
UN DRR

# 2. Evidence and findings

The evidence and findings are presented below. Examples are organized under the four Sendai Framework priorities, and presented in chronological order according to the Sendai Framework action area that they contribute towards. Each of the Sendai Framework priorities begins with: a warning of the limitations of failing to grapple with systemic risk or harness the potential to work across the HDP nexus; a summary of the findings; and a table illustrating the priority areas where evidence has been found. Further explanatory information of key themes and empirical examples are included in the annex.

## Priority 1: Understanding disaster risk

As has been well documented, failure to grasp the multicausal drivers of vulnerability to disaster risk leads to piecemeal understandings of disaster risk and impacts (Peters, 2019; UNDRR, 2022a). HDP nexus approaches offer possibilities to overcome the shortfalls of such blinkered approaches. Thus, to understand and act on the complexity of systemic risk, we must move beyond the tendency to take a myopic approach to risk (UNDRR, 2022a). As the GAR22 makes clear, data-driven risk-management systems in increasingly complex risk environments offer a means to address this common pitfall. Furthermore, pursuing comprehensive risk-management approaches – that bring together action on DRR, climate change adaptation, humanitarian and others, "requires fostering a risk culture based on mutual trust among generalists, specialists and communities at risk" (UNDRR, 2022a: 8). Examples are included below which demonstrate this – working across technical specialists to achieve a better understanding of disaster risk.

This section on Sendai Framework ***Priority 1: Understanding disaster risk,*** shows the increased consideration of violence and conflict as a driver of vulnerability to disaster risk, but also increasingly as a hazard in itself – a societal hazard. Examples are given of enhancements in risk analysis to better understand compound and cascading risks, and examples of NGOs integrating conflict risk analysis into traditional disaster-risk analysis tools. The section includes progress on designing composite indices, such as the DRM-FCV Vulnerability Index and new INFORM products, and innovations in the use of mobile technologies to collect data to inform COVID-19 responses in violent and armed conflict contexts. The Comprehensive School Safety Framework (CSSF) is another useful example provided as it originally focused solely on natural hazards and now includes a broad range of current and emerging risks. Finally, details of new training on DRR and humanitarian aid in conflict settings are highlighted, as well as anticipatory action in conflict and crisis settings.

***Priority 1: Understanding disaster risk,*** includes examples from 10 Sendai Framework priority areas (highlighted in blue).

## Priority 1: Understanding disaster risk

### National and local levels

(a) dissemination of data and practical information for different categories of users

(b) strengthen baselines of disaster risks and their effects at relevant social and spatial scales

(c) develop and disseminate location-based disaster risk maps in appropriate format

(d) systematically evaluate, record and share disaster losses in order to understand impacts

(e) make disaster risk disaggregated information freely available accessible

(f) use information and communications technology innovations to enhance measurement tools and collection and analysis of data

(g) build stakeholder knowledge, including training, on DRR

(h) promote dialogue and cooperation among scientific and technological and other stakeholders for effective science-policy interface

(i) harness use of local knowledge and practice, with cross-sectoral approach

(j) enhance technical and scientific capacity to apply method and models to assess disaster risk, vulnerability and exposure

(k) promote investment in innovation and technology to address gaps

(l) incorporate disaster risk knowledge in education

(m) promote national strategies to enhance educational and awareness taking into account specific audiences and needs

(n) apply risk information to develop DRR policies

(o) enhance involvement of local stakeholders and CBOs and NGOs

### Global and regional levels

(a) enhance science-based methods and tools to record and share disaster losses, strengthen disaster risk modelling, assessment, multi-hazard EWS

(b) regional disaster risk assessments including climate change scenarios

(c) technology transfer, in situ and remote sensed earth and climate observations, big data etc.

(d) promote partnerships to share good practice

(e) support services for information exchange on good practice, cost-effective and lesson learnt

(f) regional and global DRR campaigns

(g) strengthen evidence-based scientific and technical work through networks, methodologies, standards

(h) negotiate available of copyrighted and patented materials

(i) enhance multi-hazard research

## National and local levels: priority areas a-o

Sendai Framework ***Priority 1: Understanding disaster risk***, seeks to ensure that policies and practices for DRM are "…based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment" (UNDRR, 2015: 14). One advancement in pursuing a more comprehensive understanding of systemic risk is to explore violence and conflict – specifically in relation to the interaction with disaster risk. This has been initiated. Efforts to document and summarize the multitude of ways conflict and violence interact with and exacerbate vulnerability to disaster risk can be found in various 'state of the evidence' reports (including for example Peters et al. (2019c) and Siddiqi and Peters (2019)). More recently, as well as conflict and violence being elucidated as part of the vulnerability component of disaster risk (see Peters, 2019), it is considered as part of the hazard component. The UNDRR and ISC (2020) Hazard Definition & Classification Review includes, for example, an expanded set of societal hazards such as international armed conflict, explosive remnants of war, environmental degradation from conflict, and violence.[1]

Safely storing data is critical for developing more-comprehensive understandings of risks. However collecting, storing and accessing hazard data in contexts of sustained conflict, particularly armed conflict, can be particularly challenging. For example, the hydrological and meteorological data needed to identify trends, quantify climate changes, and assess forecast accuracy is lacking in many countries in the Middle East and North Africa (MENA) region such as Yemen, Syria and Iraq (Peters et al., 2022). Low coverage of hydrometeorological stations, destroyed records - including from conflict damage, underinvestment in maintenance and repair, and conflict disrupting public administration and financial management - all undermine the feasibility of collating data required for weather and climate forecasting. That said, in recent years, government commitments – aided by climate funds – have seen forecasting capacity for floods and droughts improve across the region, including in Tunisia, Morocco, Jordon, Lebanon and Egypt (Peters et al., 2022). The Jordanian Meteorological Department, for example, draws on regional and international institutions (WMO, Météo-France and the European Centre for Medium Range Weather Forecasts) to issue forecasts (Peters, et al., 2022).

Efforts are also underway to enhance technical capacities to better understand risks beyond the narrow focus on natural hazards (contributing to ***Priority 1 local/national (j) enhance technical and scientific capacity to apply methods and models to assess disaster risk, vulnerability and exposure***). For example, when enacting DRR in humanitarian settings; "Risk analysis in contexts of protracted conflict should deliver a deeper understanding of how a community or society has changed and adapted in response to the pressures of conflict. It should consider the community's capacities and mechanisms for providing protection and meeting basic needs, and importantly, whether they can be sustained if the conflict continues, and if they are compatible with peace" (UNDRR, 2020: 20). Only then, is it possible to consider what actions could be compatible with reducing risks to a range of hazards (UNDRR, 2020).

Cordaid is similarly advocating a deeper consideration of natural hazard-related disaster and conflict risks in risk-analysis tools. Field experience led to the realization that community-based DRR approaches such as the Participatory Disaster Risk Analysis tool were not sufficient to analyse conflict or conflict risks, nor to inform programme design to address conflict risks – a concern raised repeatedly elsewhere (see Harris et al., 2013; Peters 2019). This is because comprehensive and systematic conflict information is required to ensure a 'no-harm' approach can be adopted. Based on piloting conflict risks analysis within conventional foundational DRR assessments, Cordaid has been

1 The full list of societal hazards includes: international armed conflict, non-international armed conflict, civil unrest, explosive remnants of war, environmental degradation from conflict, violence, stampede or crushing (human), financial shock.

able to mature its DRR programme design in conflict contexts (Loof, 2019). Cordaid's Conflict (Risk) Analysis Tool is now adopted in DRR planning and implementation (see Annex 3).

The conflict risk analysis described above includes consideration of climate-related conflicts, something the Red Cross Red Crescent Movement has been exploring in detail. Building on a series of global roundtables exploring the humanitarian implications of intersecting climate and conflict risk (see ODI et al., 2019), the Red Cross Red Crescent Climate Centre has developed a series of country and regional climate factsheets for contexts affected by armed conflict. This includes, for example, Colombia, Mali, Myanmar, Syria, Ukraine, Yemen and more (Climate Centre website, 2021). Currently being updated, the factsheets have been used within the International Committee of the Red Cross (ICRC) climate-screening process to inform programming decisions (Jaime correspondence, August 2022); demonstrating how climate-humanitarian collaborations can help mature our collective understanding of complex risk landscapes.[2]

Composite indices have also started to be developed. Similarly contributing to ***Priority 1 local/national (j),*** the *Global Facility for Disaster Reduction and Recovery (GFDRR)* overlaid hazard and exposure data with fragility, conflict and violence (FCV)-related spatial data to develop a composite score of disaster and FCV risks. The Disaster-FCV Vulnerability Index (GFDRR, 2022a) forms part of GFDRR's Disaster Risk Management–Fragility, Conflict and Violence (DRM-FCV) Nexus programme. In time, the composite index created for South Sudan (see Annex 4) may be replicated in other contexts and used to inform fund allocation to address compound risks (GFDRR, 2022a).

Mobile technologies have been harnessed in complex humanitarian settings to help better understand vulnerabilities and disaster impacts (contributing to ***Priority 1 local/national (f) use information and communications technology innovations to enhance measurement tools and collection and analysis of data***). In al-Shabaab controlled rural areas of southern and central Somalia, remote sensing technology and social-media analytics, combined with local partner insights and household surveys, helped document drought impacts and humanitarian needs (UNDRR, 2019). Mobile technologies have also been used in Ebola responses in conflict settings, which have since informed COVID-19 responses in similarly difficult operating environments. Oxfam response teams, for example, used a digital tool, SurveyCTO, to systematically collate community perceptions into a database to allow triangulation with epidata, to assess trends in vaccination, outreach and case management. (Oxfam, nd). Working across the HDP nexus also provides opportunities for enhancing data collection. Saferworld (2020b), for example, describe how peacebuilding coordination hubs became forums for rapidly assessing the impact of COVID-19 and facilitating planning of responses.

As with the example above, where conflict and insecurity present limitations on physical access in hazard- and conflict-prone contexts, local assets are crucial. Understanding disaster risk thus requires deep contextual understanding of local actors, dynamics and conditions. Examples from South Sudan and Kenya demonstrate this clearly (contributing to ***Priority 1 local/national (i) harness use of local knowledge and practice, with cross-sectoral approach***). In Western Bahr el Gazal and Eastern Equatoria States of South Sudan, a project interlinking peacebuilding, decentralization and development saw participatory disaster-risk analysis being undertaken at community level with integrated conflict risk analysis.[3] This led to joint implementation of community-based peacebuilding initiatives together with livelihood security and water-management activities (Loof, 2019). In practice, this meant activities such as holding peace conferences, creating an early-warning system, constructing rainwater harvesting,

2 Catalina Jaime, Red Cross Red Crescent Climate Centre – correspondence. August 2022.

3 Implemented between 2013 to 2017 by VNG International, Paz and Cordaid with funding from the Dutch Ministry of Foreign Affairs.

and undertaking training on conflict transformation. Water committees, DRR committees and peace committees were also established and supported (Loof, 2019).

Linking different risk analyses, performing participatory risk-analysis processes, and conducting environmental impact assessments, can be important tools for decision-making in complex risk environments. For example, in the Ewaso Nyiro River and Tana River basins, Kenya, participatory risk analysis formed the basis of a set of programme interventions in the arid and semi-arid lands. Well documented conflict threat factors in the area included drought-related movement, competition over dwindling natural resources, the influx of small arms and light weapons, particularly in the border areas with Ethiopia, Sudan and Somalia, and feelings of marginalization by affected groups. Only through actively linking natural hazard-related disaster and conflict risk analysis was it possible to design appropriate interventions. This included facilitating peace dialogues, (re)establishing peacebuilding committees and performing peace rituals. Advocacy campaigns also took place. One example is the Camel Caravan Campaign, which targeted decision-makers and ultimately led to halting the construction of a mega dam until more-robust community engagement could take place. The dam was predicted to decrease water flow with impacts for water-dependent livelihoods, cause displacement and increase resource-based conflicts among pastoral communities. Following more-substantive consultations, a Memorandum of Understanding between communities and the Government was crafted, together with a more inclusive review of an Environmental Impact Assessment (Loof, 2019).

Working across the HDP nexus requires individuals to have a base level of knowledge about the terminology, principles and concepts commonly used by humanitarians, development and peace practitioners. In support of this, specifically tailored training has been developed on the HDP nexus (contributing to ***Priority 1 local/national (g) build stakeholder knowledge, including training on DRR***). Examples include a massive open online course (MOOC) on DRR and humanitarian aid in conflict settings (Coursera, 2022). The e-course is practitioner-focused, exploring the practicalities of humanitarian aid, DRR and disaster response in conflict contexts. Other training is sector-specific. For example, the WHO and Centre for Conflict and Humanitarian Studies developed a course that describes how to implement the HDP nexus for health professionals. Focusing on using the comparative advantage of the HDP component parts, it includes working in partnership across humanitarian, development and peace actors, improving efficiencies, reducing service-delivery gaps, and reducing duplication of efforts (WHO and CCHS, nd). Finally, training focusing on specific aspects of the DRM cycle in the conflict contexts is emerging. This includes on anticipatory action (AA) in conflict contexts by the Anticipation Hub (nd). Two dimensions are covered (i) AA in conflict settings for climate-related hazards, and (ii) the humanitarian consequences of conflict (Anticipation Hub, nd).

Across other sectors, more critical thinking is needed to consider the adjustments to programming as a result of adopting an HDP nexus approach or embracing action on systemic risks. The education sector provides an example of forward thinking. Detailed consideration has been given to the types of education required in emergency programming with complex risks and peace in mind (contributing to ***Priority 1 local/national (l) incorporate disaster risk knowledge in education***). The Comprehensive School Safety Framework (CSSF) has done just this. Originally focusing on natural hazard-related disasters, the latest CSSF 2022-2030 now includes current and emerging risks, such as COVID-19, climate change, conflict, violence, technological threats, and everyday threats (GADRRRES, 2022). Looking ahead, greater consideration could be given to the role of peace education in the recovery phase and in exiting crisis situations - as an avenue to enhance empowerment and invest in the longer-term resilience of populations. Relatedly, in support of the Transforming Education vision statement of the UN Secretary-General, making the curriculum more relevant for today's world should include education on systemic risks.

## Global and regional levels: priority areas a-i

There are a growing number of indices which help encourage a deeper understanding of systemic risks, combining natural hazard-related data with data on pandemic threats, political instability, violence and armed conflict, economic insecurity and other measures (contributing to ***Priority 1 regional / global (a) enhance science-based methods and tools to record and share disaster losses, strengthen disaster risk modelling, assessment, and multi-hazard EWS***). Most notably INFORM, a collaborative effort of the Inter-Agency Standing Committee Reference Group on Risk, Early Warning and Preparedness and the European Commission, led by the Joint Research Center of European Commission (DRMKC, nd). INFORM shares quantitative analysis relevant to humanitarian crises and disasters alongside its annual report (IASC and EC, 2022). The products on offer have expanded over the years, with increasing focus on preventative and predictive insights; in line with the Sendai Framework shift away from managing disasters to managing risk (see Annex 5).

Further, in addition to the aforementioned Disaster-FCV Vulnerability Index (GFDRR, 2022a), there are other efforts to enhance the collection and assessment of data on a range of hazards, including societal hazards. One example is the Water, Peace and Security Partnership which has developed a means to overlay conflict forecast maps with precipitation data to predict emerging and ongoing conflict over the coming 12 months, to inform regional and global early-warning tools (WPS, nd.).

For many regions, employing composite index and multi-hazard risk analysis to move towards comprehensive risk management is still some way off. The challenges of downscaling and customising forecasts have been documented elsewhere (see Peters et al., 2022), though it is worth noting that for some regions such as MENA, sharing data across institutions remains a challenge, inhibiting multi-hazard risk analysis and forecasting. This has direct implications on the feasibility of enacting early-warning systems. Further limitations are apparent when looking beyond the focus on meteorological and hydrological hazards (which dominate); "even if they [multi-hazard early-warning systems] are 'multi'-hazard, they largely concentrate on a narrow hazard cluster and tend not to include biological or societal hazards. Momentum is growing for enhancing the recognition of conflict in AA in the humanitarian community, but conflict analysis is a still a major shortcoming in AA and predicting conflict and its effects remains a challenge" (Peters et al., 2022: 5). Thus for some risks – such as conflict, the feasibility of developing predictive measures may be methodologically unviable.

There remains much that can be done to enhance risk analytics in support of a deeper understanding of systemic and cascading risk, and to provide a foundation stone for HDP nexus action. A significant contribution to enhancing the data ecosystem for risk is the Complex Risk Analytics Fund (CRAF'd), "…a multilateral financing instrument aiming to support a more collaborative data ecosystem and enhance data capabilities to better anticipate, prevent and respond to complex risks in fragile and crisis-affected settings" (CRAF'd, 2021). CRAF'd aims to raise $15-25 million in investment to tackle the well-documented frustration that data on disaster risks and impacts in complex and crisis settings can be lacking (see Peters and Budimir, 2016; Peters, 2019). If successful, CRAF'd will contribute to: real-time, high-resolution data on complex risks; predictive models, including the integration of insights from social media; and standards and guidelines for responsible use of data and interoperability across the data ecosystem (CRAF'd, 2021).

Aforementioned efforts to integrate climate risks and impacts into humanitarian action are worth reiterating under this subsection as they contribute to various Sendai Framework priority areas. As well as national factsheets, the Red Cross Red Crescent Climate Centre developed regional climate factsheets for the Americas, Eurasia, Middle East, Asia Pacific and Central Asia (Red Cross Red Crescent Climate Centre, 2021) (contributing to ***Priority 1 regional / global (b) regional disaster risk assessments including climate change scenarios***). These are currently being used within the ICRC screening process, and are being updated to reflect the latest climate insights, with adapted versions

to reflect the IFRC mandate.[4] The Climate Centre – ICRC partnership is one of a number that helps inform action on natural hazards - including those that are climate-related, in conflict contexts.

Important collaborations across the HDP nexus are emerging that are proving effective at strengthening partnerships across previously disparate expert groups, and in enhancing technical and analytical capabilities to pursue comprehensive risk-management approaches. Most notably, the Climate Security Mechanism (contributing to ***Priority 1 regional / global (d) promote partnerships to share good practice***). The Mechanism, established in 2018, brings together climate-change, peace and security expertise through a collaboration between the UN Department of Political and Peacebuilding Affairs (DPPA), UN Development Programme (UNDP) and UN Environment Programme (UNEP) (DPPA, nd). Aiming to address climate-related security risks more systematically throughout the United Nations, the initiative – though rarely using the language of disasters or DRR – helps support a deeper appreciation of complex and cascading risks. It does so through climate-security-risk assessments that inform risk-management strategies, and most visibly its UN Community of Practice on Climate Security with over 300 partners (DPPA, nd). The mechanism has trained analysts on integrated climate-security-risk measures, supported 18 UN Country Teams to include climate-security risks in strategic planning processes, and established a climate-security toolbox (CSM, 2021).

Other initiatives using the framing of climate security, but invariably exploring climate-related disaster risks in conflict contexts, are the Planetary Security Initiative, whose recent publication of climate-security practices includes weather index insurance as an example (von Lossow et al., 2021).[5] Similarly, the World Climate and Security Report 2021 makes several references to HDP nexus action as an avenue for addressing climate-security risks; "Reducing climate-related security risks in theory therefore requires multiple different actors across many fields, to include peacebuilding, mediation, disaster preparedness, climate adaptation and climate mitigation " (ICCMS, 2021: 28).

There also exists a number of networks and working groups whose efforts are helping to deepen our collective understanding of complex risks and their impacts on specific sub-sets of society (contributing to ***Priority 1 regional / global (g) strengthen evidence-based scientific and technical work through networks, methodologies, standards***). The multi-agency Disaster Displacement Working Group based in Bangkok is one example. The group has sought to nuance the evidence base on multiple, repeated and protracted disaster displacements and their intersection with conditions of violence and armed conflict – not least because of a member agency's experiences of responding to the Rohingya crisis on the Myanmar/Bangladesh border (Peters and Lovell, 2020).

Finally, innovative collaborations across the HDP nexus have helped reveal previously unassessed risk factors that result from programme interventions. A useful example of this is the World Food Programme's (WFP) collaboration with the conflict specialists Stockholm International Peace Research Institute (SIPRI). Together, they have undertaken research to understand whether WFP programming "…has had an identifiable effect in exacerbating conflict or increasing the risk of conflict. The results are mixed, and there are some instances of WFP programming having a marginal negative effect or risking one" (Delago et al., 2019). Collaborations and research such as this are necessary if agencies are to better understand their own impact on patterns of risk; and to fulfil the commitments of the 2016 UN Peace Promise (Delago et al., 2019).

4 Catalina Jaime, Red Cross Red Crescent Climate Centre – correspondence. August 2022.

5 https://www.planetarysecurityinitiative.org/

## Priority 2: Strengthening disaster-risk governance to manage disaster risk

As risk is not created in neat sectoral or hazard-based siloes, the governance of disaster risk similarly cannot be compartmentalized – as this leaves open the possibility for negative unintended impacts and setbacks by one risk-management system on another. To address systemic risk, we need to transform our structures of risk governance (UNDRR, 2022a). Furthermore, the complexity of today's risk landscape necessitates institutional cultures that are comfortable with uncertainty, acknowledging that a range of outcomes is possible (UNDRR, 2022a). Systemic risk points planners "…to consider 'baskets' of possible outcomes, to be more agile in identifying when changes in assumptions are needed, and to respond to those changes" (UNDRR, 2022a: 202).

This section on Sendai Framework ***Priority 2: Strengthen disaster-risk governance to manage disaster risk***, provides evidence of national and regional DRR strategies and plans citing the role of societal hazards in increasing disaster risk - as in the African regional strategy, and in the intention to pursue dual outcomes for peace and disaster resilience. It provides examples of local disaster-risk governance initiatives enhancing community solidarity and trust in Afghanistan. Relatedly, the growing interest in environmental peacebuilding offers new insight into possibilities for enhancing peace outcomes through natural-resource management – which is inextricably linked to DRR in many contexts. At regional level, it provides examples of climate-security-orientated initiatives having relevance for disaster governance in the Sahel and Caribbean, in their linking of resilience, stabilization and recovery.

***Priority 2: Strengthen disaster-risk governance to manage disaster risk***, includes examples from six Sendai Framework priority areas (highlighted in blue).

| **Priority 2: Strengthen disaster-risk governance to manage disaster risk** |
|---|
| **National and local levels** |
| (a) mainstream DRR across all sectors |
| (b) implement national and local DRR strategies and plans |
| (c) assess technical, financial and administrative DRM capacity |
| (d) ensure compliant, sectoral lases, regulations and codes |
| (e) periodically assess progress on national and local plans |
| (f) assign community representatives within DRM institutions and processes and ensure consultations |
| (g) strengthen government coordination forums, including national and local platforms |
| (h) empower local authorities through regulatory and financial means |
| (i) encourage parliamentarians to support implementation of DRR via legalisation and budget allocation |
| (j) promote quality standards |
| (k) formulate public policies to address prevention, relocation, of disaster-risk prone zones |

| Global and regional levels |
| --- |
| (a) regional and subregional strategies and mechanisms |
| (b) cooperation through global and regional mechanisms and institutions |
| (c) engage in Global Platform and regional and subregional platforms to share practice and forge partnerships |
| (d) promote transboundary cooperation with regard to shared resources |
| (e) promote multi-lateral learning and exchange of good practice through peer review |
| (f) promote international voluntary mechanisms for monitoring and assessment of action |

## National and local levels: priority areas a-k

Sendai Framework ***Priority 2: Strengthen disaster-risk governance to manage disaster risk***, aims to ensure mechanisms and institutions are in place for implementing instruments relevant to DRR. In practice, attention tends to focus on designing and implementing national and sub-national DRR strategies and plans, with a focus on natural hazards (contributing to ***Priority 2 local / national (b) implement national and local DRR strategies and plans***). In an effort to situate DRR strategies and plans in the systemic risk context they are expected to work in, the GAR19 for the first time included an entire chapter on DRR strategies in fragile and complex risk contexts (UNDRR, 2019). The chapter was informed by a range of examples demonstrating just how differently national and local DRR strategies deal with issues of conflict and violence (Peters et al., 2019d; Hilhorst et al., 2019). Findings from a review of Afghanistan, Chad, Colombia, Haiti and Liberia have been mixed (Peters et al., 2019d). For example, Colombia has relatively mature DRM institutions and architecture, but for various political reasons the national DRR strategy does not discuss the role of armed conflict in increasing individuals' vulnerabilities to disaster risk (Siddiqi et al., 2019). Lebanon, on the other hand, includes a broad range of hazards and threats under one policy framework, including earthquake, flood, and fire, as well as societal hazards such as conflict (Peters et al., 2019b). More recently, questions have been posed about whether conventional and somewhat formulaic approaches to crafting national and sub-national DRR strategies are appropriate for countries with significant political instability or protracted conflict - as in Chad - and whether more flexibility is required in what constitutes a DRR strategy (see Peters et al., 2019a).

There exists a number of national strategies that explicitly and implicitly recognize the systemic nature of risk. In 2017, Afghanistan undertook a multi-hazard risk assessment to inform the development of the National Strategy on Disaster Risk Reduction. The strategy subsequently noted that decades of conflict have undermined local to national coping mechanisms, and identified conflict as a driving factor of degraded infrastructure and public-service delivery (UNDRR, 2019). In another example, the Central African Republic's draft national strategy took the implications of the political crisis into account and explicitly discussed armed conflict (UNDRR, 2019). Iraq also provides a useful example. The National Disaster Risk Reduction Strategy includes a description of the security context and acknowledges that communities at higher risk of disasters are those in areas affected by insecurity. The strategy also describes a range of programmes and plans to increase societal resilience by tackling disaster risk and cascading impacts (UNDRR, 2019). It also described the ambition to address not only risks from floods and drought but also toxic and non-toxic remnants of war – which can create health risks and hamper basic service delivery (UNDRR, 2019).

In line with HDP approaches, the GAR19 suggested that, "National and regional DRR policies across contexts must formally and explicitly recognize the interlinked risks of disasters, conflict

and displacement with an eye to present and future conditions. Both current, and a range of likely future, conditions, should inform the design of immediate humanitarian and long-term development strategies" (UNDRR, 2019: 418). A year on, this message is re-emphasized in the context of advancing DRR in humanitarian settings, with the call to; "Create legislation and plans that include provisions for both climate and pandemic-related risks as well as conflict-related shocks and stresses. In some countries, laws governing response to man-made hazards are separate from those for natural hazards, with weak linkages between them, leading to confusion on roles and responsibilities. …[risk analysis] should identify overlaps between the two, which should feed into the drafting of legislation" (UNDRR, 2020: 21). Thus, further work is required to better understand how to design, fund, implement and monitor, national and local DRR policies and strategies that adopt a comprehensive risk-management approach and, in doing so, grapple with the complexity of governing systemic risk.

At local level, the challenges of disaster-risk governance can be quite different. The skillsets commonly found within the peace cadre can be critical for navigating and securing local buy-in for DRR interventions and, when utilized effectively, can have positive effects on societal cohesion. For example, a northern Afghanistan DRR reforestation project aimed to reduce the risk of landslides from earthquakes and reduce water flow from rain and snowmelt; and in turn reduce river flow and flooding risk. Tensions over land ownership, land use and job opportunities related to project implementation led to the termination of the project (Mena and Hilhorst, 2020). In another Afghan example, from Badakhshan province, a DRR project aimed to build retention walls and protection walls along river banks to reduce flood risk. The specific location of the mitigation infrastructure caused disputes between communities, as did questions over who would benefit from employment opportunities in constructing the flood-prevention measures (Mena and Hilhorst, 2020). It was learnt that in such cases, it is necessary to make consultation processes and forms of mediation an integral component of project implementation (contributing to ***Priority 2 local / national (f) assign community representatives within DRM institutions and processes and ensure consultations***). Afghan staff, highly experienced in managing local tensions and averting the risk of escalating conflict, were invaluable to the consultation process in the design phase of the project. In some instances, social cohesion may have been strengthened as a result of the DRR interventions, owing to those mediation and collaboration efforts (Mena and Hilhorst, 2020).

More recently, there is evidence of DRR interventions adopting tools traditionally in the domain of conflict and peace experts. Some DRR teams are more systematically adopting 'do no harm' and conflict-sensitive approaches in conflict contexts, and even integrating aspects of conflict prevention alongside risk-reduction ambitions (Mena and Hilhorst, 2020). In an Afghan Resilience Consortium project on ecosystem-based DRR, involving natural-resource management strategies and reforestation, conflict-sensitive approaches have been integrated into project log frames, despite not being a donor requirement (Mena and Hilhorst, 2020).

Finally, as a contribution to the HDP nexus, ensuring community-governance mechanisms form part of the process of implementing disaster-risk governance, have been shown to enhance community solidarity and mutual trust – important components of peaceful relations (contributing to ***Priority 2 local / national (f) assign community representatives within DRM institutions and processes and ensure consultations***). In the Project for City Resilience implemented by UN-Habitat, small block grants were offered to implement community-resilience plans in Afghanistan. The grants funded physical assets such as infrastructure, as well as awareness raising and education activities. Pertinent to this topic, it also included efforts to enhance social capital through community-led development and monitoring of the plans, and in turn enhancement of community solidarity and trust. This was achieved by mobilizing a community-governance body responsible for fund management - with training for members on project management, finance and procurement, and social audits (Takabayashi, 2019).

## Global and regional levels: priority areas a-f

Disaster-risk governance strategies and plans at regional level - particularly in Africa - provide useful illustrations of linking risks and impacts across the HDP nexus (contributing to ***Priority 2 regional / global (a) regional and subregional strategies and mechanisms***). From the onset of its first African Regional Strategy for Disaster Risk Reduction 2005-2009, the region made clear that "…disaster risk results from the interaction between natural, technological or conflict-induced hazards and vulnerability conditions… and states that conflicts can increase the risk of natural hazard-related disaster, and that disasters can influence the form, onset and intensity of conflict" (Peters, 2019: 22). Recognition of a symbiotic relationship continues to the current day, with the African Union Programme of Action 2015-2030 urging there to be "Enhanced mutual reduction of disaster risk, fragility and conflict" (Peters, 2019: 22). There are also examples of sub-regional entities recognizing the links between multiple hazards. As the East African Community (EAC) Disaster Risk Reduction and Management Strategy 2012-2016 coneys, "…it is understood that disaster risks result from the interaction among natural, technological or conflict-induced hazards and vulnerability conditions' (EAC Secretariat, 2012: 9)" (Peters, 2019:22).

Across other regions, inclusion is slight, though it is worth noting that the Asia Regional Plan for Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2020 makes valuable note of the need to ensure the adoption of gender-sensitive approaches to support the "…prevention and response to gender-based violence" (Peters, 2019: 22). Relatedly, the Economic Community of West African States (ECOWAS) Gender Strategy and Action Plan (GSAP) aims to ensure adoption of a gender-sensitive approach to all aspects of disaster risk reduction, noting that "…gender-blind approaches to post-disaster relief and recovery can reinforce inequalities …and have the potential to transform power relations" (AU and UNDP, 2022 – forthcoming).

Beyond the regional strategies crafted to specifically address DRR and support delivery of the Sendai Framework, a number of regional initiatives framed on climate security exist, and bear relevance. One example is the Plan of Action on Resilience in the Caribbean, chaperoned by the Caribbean Disaster Emergency Management Agency (CDEMA) and supported by, among others, the Planetary Security Initiative (2019). Alongside sharing knowledge, aligning activities on water, food and energy, and enhancing networks on resilience, the initiative aims to strengthen the integration of DRR and climate change adaptation. Agreement was also made to advance a number of areas of work related to climate and security, including, for example, to: strengthen capacity and knowledge of Caribbean small island developing states on climate and security; strengthen regional coordination in support of humanitarian crises (contributing to ***Priority 2 regional / global (b) cooperation through global and regional mechanisms and institutions,*** and ***Priority 4 regional / global (a) coordinated regional approach to prepare for and respond to disasters that exceed national capacity***); and advocate for stronger political support for the Regional Climate and Security Agenda (Planetary Security Initiative, 2019).

There are similar examples from Africa where climate- and security-focused initiatives have devised regional strategies and plans to support a range of outcomes across the HDP nexus including reducing poverty, risk-informed development, stabilization and peace (AU and UNDP, 2022 – forthcoming). The Lake Chad region is notable, given the plethora of such documents – including but not limited to a number of major initiatives by the G7 and partners. A comprehensive mapping of such initiatives and plans (see AU and UNDP, 2022 – forthcoming) details for example: the Lake Chad Basin Commission's 2015 Lake Chad Development and Climate Resilience Action Plan; the African Union's 2018 Regional Strategy for Stabilization, Recovery and Resilience; and the 2018 UN OCHA and UNDP Resilience for Sustainable Development in the Lake Chad Basin. Though the potential for utilizing such commitments to enhance national and regional disaster-risk governance, institutions and strategies are woefully under-explored, each supports different aspects of disaster resilience and recovery relating to climate impacts, security and peace, and human mobility (AU and UNDP, 2022 – forthcoming).

Deeper understanding of the way different risks are governed, in conjunction with the systemic risk landscape of a locale, has become necessary for advancing various aspects of the DRM cycle. This is illustrated using the example of WFP's work in the MENA region (contributing to ***Priority 2 regional / global (b) cooperation through global and regional mechanisms and institutions***). WFP has supported a mapping of the institutional and policy environment for anticipatory action across a range of hazards in the region. The mapping represents a baseline of experiences and capacities – the first of its kind, and notes the additional challenges presented by a number of co-existing risks, including armed conflict, political upheaval and sub-national conflict (Peters et al., 2022). The findings indicate that "Conflict contexts in the region present additional challenges to advancing AA, particularly as many institutions and systems that provide a critical basis for AA have been significantly weakened by protracted conflict, political change or contestation. Some progress has been made to integrate elements of AA into humanitarian response planning" (Peters et al., 2022: 6). This is the case in Yemen, for example, where sub-national conflicts present significant barriers to sustaining or maturing the disaster-risk-governance landscape. The report itself represents a significant advance in thinking on AA in the region, and its launch in 2022 was accompanied by the establishment of a MENA Anticipatory Action Regional Community of Practice instigated by IFRC and WFP (IFRC, 2022).

As with the illustration above, regional platforms and mechanisms represent important spaces for sharing knowledge, forming coalitions, and collaborative advocacy to increase awareness and commitment to the additional challenges presented by conditions of compound and cascading risks – and more recently on the contribution of DRR in the HDP nexus (contributing to ***Priority 2 regional / global (c) engage in Global Platform and regional and subregional platforms to share practice and forge partnerships)***. UN Deputy Secretary-General Amina Mohammed remarked that she was "…pleased to see increasing collaboration between United Nations agencies to address the growing disaster and climate risks in fragile contexts and to strengthen the humanitarian-development-peace nexus" (United Nations press release, 2022). Similarly, the Co-Chair's Summary of the 2022 Global Platform in Bali, Indonesia, stressed that "Disaster risk reduction should be integrated into the humanitarian-development-peace nexus to overcome the protracted and recurrent nature of crises and strengthen local and global food security. Countries affected by conflict and humanitarian crises warrant greater attention" (UNDRR, 2022: 6).

To achieve this change in practice, new initiatives, such as the launch of a Centre of Excellence for Climate and Disaster Resilience within UNDRR, represent a collective effort to scale-up climate and disaster-risk management in highly vulnerable and fragile contexts (UNDRR, 2022). As documented elsewhere (see Peters, 2019), employing language related to conflict within the DRR convening spaces is not commonplace. It results from a collective and sustained effort on the part of many champions of the DRR-conflict nexus agenda - particularly ODI, GFDRR and various NGOs - to encourage recognition of the additional complexities that violence and conflict present to achieving DRR outcomes. Historically, the topic has been showcased in the margins of the regional and global events - in side events and IGNITE stage presentations. Interest and visibility for the topic has grown, with a specific Spotlight Session on Scaling Up Disaster Risk Reduction in Fragile and Conflict Contexts at the 2022 Asia Pacific Ministerial Conference on Disaster Risk Reduction. One of the critical factors enabling greater visibility of the topic in DRR convening spaces has been the support from UN Assistant Secretary-General and Special Representative of the Secretary-General for Disaster Risk Reduction in the United Nations Office for Disaster Risk Reduction, Ms Mami Mizutori. This includes, for example, providing her thoughts through various platforms, including the ODI podcast series When Disasters and Conflict Collide.[6]

6 ODI podcast series 'When disasters and conflict collide' (https://odi.org/en/insights/multimedia/podcast-series-when-disasters-and-conflict-collide/#:~:text='When%20disasters%20and%20conflict%20collide,but%20also%20contribute%20to%20peace)

Understanding progress on DRR in the HDP nexus also requires us to look beyond the DRR sphere. A complementary sphere of work is environmental peacebuilding. In 2022, renewed focus on the value added by environmental peacebuilding – defined as an approach that "…integrates natural-resource management in conflict prevention, mitigation, resolution and recovery, to build resilience in communities affected by conflict" (Brown and Nicolucci-Altman, 2022: 11) – was consolidated in the form of a White Paper on the Future of Environmental Peacebuilding (Brown and Nicolucci-Altman, 2022). Though the contribution of DRR to the agenda remains exploratory (see Bollettino and Darwish, 2022), it forms part of a broader interest in understanding the role of DRR in the context of the sustainability-peace nexus (see Peters and Peters, 2021).

Relatedly the Environmental Peacebuilding Association (EnPAx) convenes an Interest Group on Disaster and Resilience (contributing to ***Priority 2 regional / global (b) cooperation through global and regional mechanisms and institutions***).[7] Though not currently systematically collated or analysed, there are examples of environmental-DRR interventions in crisis and conflict settings which contribute to this agenda (contributing to ***Priority 2 regional / global (d) promote transboundary cooperation with regard to shared resources***). One is EcoPeace Middle East Good Water Neighbours project. This brings together mayors from Israeli, Palestinian and Jordanian towns, fostering cooperation through shared water resources (von Lossow et al., 2021). This includes: connecting Palestinian sewage networks to Israeli networks to reduce wastewater pollution; constructing a decentralized wastewater treatment plant near Bethlehem, enabling female agricultural workers to prevent pollution of shared underground resources; and installing greywater treatment systems in Jordan to reduce environmental pollution. By focusing specifically on communities dependent on transboundary rivers, environmental entry points for peacebuilding are exploited (von Lossow et al., 2021).

Another example is the 3S Initiative (sustainability, stability and security), an intergovernmental initiative aiming "…to address the root causes of instability in Africa, particularly migration and conflict related to land and resource degradation" (van Schaik et al., 2019: 20). Through investments in natural-resource governance in post-conflict recovery settings, ambitions include sustainable land practices, displacement prevention through disaster preparedness, and enhanced governance in order to reduce grievances which can create or escalate conflict (von Lossow et al., 2019). A plethora of other initiatives exist, such as the Great Green Wall, Bonn Challenge on landscape restoration, New York Declaration on Forests and the AFR100 Initiative aiming to restore 100 million hectares of forest and degraded lands (van Schaik et al., 2019; AU and UNDP, 2022 – forthcoming).

In the final example of this subsection, transboundary cooperation on DRM can be an avenue for regional cooperation, even in the context of geopolitical tensions and political disagreements (contributing to ***Priority 2 regional / global (d) promote transboundary cooperation with regard to shared resources***). Take the example of the Hindu Kush Himalayan mountains - home to 10 major river systems servicing 1.4 billion people. The International Centre for Integrated Mountain Development (ICIMOD) has facilitated data and information sharing through regional and national flood-information systems. This has subsequently aided the design and implementation of risk-reduction measures for floods, droughts and land erosion (van Schaik et al., 2019). ICIMOD found "…that governments can and will collaborate on science and development issues, even when political negotiations are difficult. This is partly because these governments increasingly realize that the risks require a joint development of resilience and adaptation strategies including disaster risk reduction, information sharing and regional water management between border communities" (van Schaik et al., 2019: 21). Extrapolating from this example – and many others the world over, the governance of transboundary risks may therefore be viable, even when other humanitarian, development or peace-related objectives may be politically unfeasible.

7 https://environmentalpeacebuilding.org

## Priority 3: Investing in disaster risk reduction for resilience

If we are to deepen our understanding of the complexity of systemic risk (Priority 1), and pursue comprehensive approaches to risk management through transformed disaster-risk governance approaches (Priority 2), then it follows that financial systems will also need to be reconfigured to work across silos (UNDRR, 2022a). Previous efforts to elucidate the gaps and areas of overlap in the context of financing emergency preparedness, for example, reveal how taking the full suite of available finance - including, but not limited to, national and international, development, humanitarian, climate and peace funds - could offer means to enhance the complementarity of different funding streams for similar goals (Kellett and Peters, 2013). Working across the HDP nexus offers potential to move towards a reconfigured financial architecture that has the capability to advance comprehensive risk-management approaches in the context of systemic risk.

This section on Sendai Framework ***Priority 3: Investing in disaster risk reduction for resilience***, provides examples of the nascent funds dedicated to pursuing DRR outcomes in crisis and conflict contexts. The most notable example is GFDRR's DRM-FCV Nexus programme, while Agence Française de Développement (AFD) has commissioned an internal review to identify barriers and incentives to enhance financing for DRR in conflict settings. Evidence of adapted financing mechanisms and models are provided that offer the opportunity to scale-up preventative and early action to address complex risks, such as anticipatory action, forecast-based finance, and crisis modifiers. This section also includes illustrations of more flexibility in the use of programme budgets being permitted by donors to adapt programming priorities in response to changing risk contexts, as in Somalia. While internally, illustrations are provided of donors encouraging more connections between their DRR and peace and conflict cadre. There is also a wealth of evidence on dealing with COVID-19 in settings of armed conflict and insecurity, including the potential to utilize peacebuilding hubs for data collection and response. Finally, it provides examples of adapted social safety-net and social-protection mechanisms to elucidate the opportunities such innovations provide to dealing with multiple shocks and stressors.

***Priority 3: Investing in disaster risk reduction for resilience***, includes examples from six Sendai Framework priority areas (highlighted in blue).

| Priority 3: Investing in disaster risk reduction for resilience |
|---|
| **National and local levels** |
| (a) allocate financial and logistical resources to all levels of administration to implement DRR |
| (b) promote mechanisms for disaster risk transfer and insurance |
| (c) strengthen public and private investments in critical facilities and infrastructure |
| (d) protect cultural institutions and sites |
| (e) create resilient workplaces through structural and non-structural measures |
| (f) promote disaster risk assessment into land use policy |
| (g) promote disaster risk assessment and management into rural development planning |
| (h) building codes and standards created and enforced |
| (i) enhance national health systems resilience |

| |
|---|
| (j) strengthen social safety-net mechanisms |
| (k) inclusion of people with life-threatening and chronic disease to be included |
| (l) policies and programme to address disaster-induced human mobility |
| (m) integrate DRR into financial and fiscal instruments |
| (n) sustainable use and management of ecosystems and implement environmental and DRM approaches that incorporate DRR |
| (o) increase business resilience and livelihood protection |
| (p) strengthening of livelihoods and protective assets |
| (q) integrate DRM within tourism industry |
| **Global and regional levels** |
| (a) promote coherence across sustainable development and DRR |
| (b) promote disaster risk transfer and sharing mechanisms and instruments within international community |
| (c) promote cooperation between academic, scientific, and research entities and private sector to develop new products and services |
| (d) encourage coordination between global and regional financial institutions to assess and anticipate economic and social impacts of disasters |
| (e) enhance cooperation between health authorities to implement International Health Regulations (2005) |
| (f) collaboration and capacity-building for protection of productive assets |
| (g) social safety net development |
| (h) broaden international effort to eradicate hunger and poverty through DRR |
| (i) enhance collaboration of public and private stakeholders to enhance business resilience |

## National and local levels: priority areas a-q

Sendai Framework ***Priority 3: Investing in disaster risk reduction for resilience***, aims to ensure structural and non-structural measures are in place to pursue DRR outcomes, through sustained public and private investment. A recent review of selected government donors and development-finance institutions found positive progress in specifically dedicating funds to address one aspect of the HDP nexus - natural hazard-related disaster risk including climate-related risks, in contexts affected by violence and conflict (see Peters, 2022). For volume of funds specifically dedicated to DRR in conflict contexts, GFDRR and Germany are most notable with their support to the DRM-FCV Nexus programme (GFDRR, 2020). Under the Nexus programme, US$47.5 million grant commitments have been dedicated across 35 conflict-affected countries from FY16-FY20.

A number of donors have also sought to integrate DRR within their humanitarian and other portfolios, contributing directly and indirectly to HDP nexus approaches – whether labelled as such or not. For example, Germany and Switzerland have taken great strides in integrating DRR across sector portfolios

including humanitarian interventions, conflict prevention and peacebuilding. AFD, on the other hand, has undertaken internal reviews to scope options for enhancing investments on climate and disaster risk in conflict and crisis contexts (see Annex 6).

A number of different financial arrangements offer potential to advance DRR in the context of the HDP nexus (contributing to ***Priority 3 local / national (a) allocate financial and logistical resources to all levels of administration to implement DRR***). This includes, but is not limited to:

- **Anticipatory action (AA)** – "a set of planned and pre-financed measures taken when a disaster is imminent, prior to a shock or before acute impacts are felt" (Wilkinson et al., 2020: 2). Recent baseline studies of AA in the MENA region (Peters et al., 2022) reveal the potential to scale-up action in crisis settings, and in conflict and post-conflict contexts.

- **Forecast-based finance** – where funds are automatically allocated when a pre-defined threshold is reached, to enable early action prior to a disaster (German Red Cross, nd).

- **Crisis modifiers** – pre-agreed deployment of humanitarian or development funding specifically designated to protect longer-term resilience investments in the event of a crisis (see Peters and Pichon, 2017).

In addition, numerous studies have considered the validity and viability of financing anticipatory actions from humanitarian funds, such as the UN Central Emergency Response Fund (CERF) (see Pichon, 2019). This has been taken forward with regard to drought in Somalia and Ethiopia. In April 2021, forecasts of unusually dry conditions triggered the release of CERF funds to take preventative action against the risk of food insecurity (CERF, 2021). The Start Fund has also been active, with its anticipation window being deployed in Iraq, Lebanon and Morocco to respond to an upsurge in displacement (Start Network, 2021).

Work has also been undertaken to explore the potential for AA to reduce disaster risks amidst conflict in Palestine and Sudan (see Weegmann, 2021). Interestingly for this report's consideration of DRR in the HDP nexus, it found that AA, "Whilst potentially a valuable tool … does not tackle the underlying vulnerabilities that remain present in the affected communities. It can therefore not replace more holistic efforts of sustainable development and peacebuilding which would deliver a more enduring risk-reduction activity" (Weegmann, 2021: 2).

Relatedly, calls to scale-up investment of climate-adaptation funds in conflict and post-conflict contexts are also becoming more visible, as are demands for climate programming to be conflict-sensitive when being programmed in conflict and post-conflict settings (Cao et al., 2021). Multilateral climate funds have already been supporting weather forecasting and early-warning-system development in Sudan, for example (Peters et al., 2022).

At sub-national level, future HDP nexus action may want to consider the value of adaptive programming approaches, which have proven useful for undertaking climate and disaster-resilience activities in changeable crisis and conflict settings. For example, in Somalia, armed group and clan violence combined with drought and flood-related disasters prompted the need for flexible programme budgets. When the security situation escalated, adjustments to the budgetary allocations for line items were needed to reflect changes to programming priorities (UNDRR, 2019). In complement, having target ranges for what constitutes a successful programme – rather than fixed targets – could offer scope to continue operations under more-flexible conditions when conflict escalates (UNDRR, 2019). For alternative examples from the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) programme, see Neaverson et al., (2019).

Broadly speaking, there is evidence of government budget allocations to DRR and crisis response in contexts typically classified as conflict or post-conflict, though risk management and preparedness systems in practice remain largely underfunded – this is certainly the case in the MENA region for example (Peters et al., 2022). Across the region, contingency funds are rare and mostly ex-post. There is evidence, however, of humanitarian response funds providing a backstop function; "…crisis response plans and pooled funds are supporting ongoing humanitarian responses. In part, these mechanisms provide the flexibility to respond to sudden onset disasters within a larger crisis situation" (Peters et al., 2022: 38). One example is the UN Population Fund (UNFPA), WFP and United Nations Children's Fund (UNICEF) rapid-response mechanism in Yemen, which provides support to displaced populations, resulting from natural hazard-related disasters, conflict and other shocks. In many instances, recipient households are facing multiple concurrent shocks. For example, in 2020, 22 of recipient households were also affected by floods (Peters et al., 2022).

Attempts to better understand the multidimensional nature of vulnerability and risk have been ongoing, with a view to supporting governments in prioritizing funds for infrastructural investments (contributing to ***Priority 3 local / national (c) strengthen public and private investments in critical facilities and infrastructure***). GFDRR, for instance, supported the development of detailed vulnerability maps of Maputo, Mozambique. To identify the most vulnerable and disadvantaged neighbourhoods, data on flood risk, poverty, urban crime, gender-based violence, climate change and access to infrastructure, were combined using multiple geospatial layers. The findings helped inform the government's funding decisions (GFDRR, 2022b).

The remainder of this subsection explores COVID-19 in the context of systemic risk, before closing with consideration of social safety-net and social-protection mechanisms. The onset of the COVID-19 pandemic in 2020 exposed the heightened vulnerability of populations contending with multiple concurrent risks and impacts, not least in contexts with long-term underinvestment in public and private health systems. Countries the world over had to deal with the complicating and compounding factor of COVID-19 in addition to natural hazards, biological and technological hazards, violence and conflict, climate variability and change, economic downturn and multiple other pre-existing shocks and stressors. Much has been written on the challenges of responding to COVID-19 in complex risk environments, and of the way pre-existing social and political conflicts shaped responses (Hilhorst and Mena, 2021). While UN Secretary-General António Guterres' Appeal for Global Ceasefire opened space for humanitarian responses in some contexts, new patterns of conflict and violence emerged in others. New tensions arose as a result of government choices related to lockdowns and measures aiming - or claiming - to curb the spread of infection.

Disaster-risk managers have experience of the intersection of violent conflict and spread of infectious diseases, having dealt with Ebola in the Democratic Republic of Congo (DRC), polio in Syria and cholera in Yemen, among others. Displaced populations have been particularly affected, with 364 disease outbreaks reported across 108 refugee camps between 2009-2017 (Bousquet and Fernandez-Taranco, nd). As responses to COVID-19 are ongoing, so too is research on their effectiveness. In financial support, it is worth mentioning the UN COVID-19 Global Humanitarian Response Plan and UN COVID-19 Response and Recovery Fund, which provide support to low and middle-income countries to address the health crisis, and the UN Secretary General's Peacebuilding Fund, which provides support to address conflict risks exacerbated by the pandemic (Bousquet and Fernandez-Taranco, nd) (contributing to ***Priority 3 local / national (i) enhance national health systems resilience***).

A wealth of guidance on responding to COVID-19 in complex operating environments has emerged. The World Bank, for example, supported a number of response measures, with important lessons for understanding systemic risk:

- COVID-19 and response measures will interact with pre-existing vulnerabilities and exclusions – particularly affecting displaced, refugees and minorities. Initiatives such as the Refugee and Host Communities Support Project in Niger supported women's groups and local social networks to enhance inclusion of local stakeholders in pandemic-response measures (Bousquet and Fernandez-Taranco, nd).

- Equitable service delivery and ensuring equal access to health services can help reduce the risk of grievances that can undermine people's trust in the state and local authorities. Addressing pre-existing grievances and building trust was part of a Community Resilience Initiative alongside health interventions in the Ebola response in eastern DRC (Bousquet and Fernandez-Taranco, nd).

- Working across the HDP nexus is necessary in conflict contexts, where COVID-19 necessitates immediate health responses while ineffectual governance arrangements undermine longer-term peace prospects. One example of a multi-pronged response is the US$26.9 million World Bank grant in Yemen ,which couples the WHO response to COVID-19 with joint United Nations and other multilateral and bilateral partner responses ,to reduce conflict risks, sustain peace and safeguard health systems (Bousquet and Fernandez-Taranco, nd).

From an HDP nexus perspective, responding to COVID-19 in complex humanitarian settings warrants tailored approaches relevant to contextual specificities. Finding that initial COVID-19 guidance focused on high-income countries with relatively well-functioning national-health-system capacity, or a broad single category of humanitarian settings, the www.covid19humanitarian.com website was established to host guidance documents which offer support in responding to a wider range of contexts – including low-income and crisis settings (contributing to ***Priority 3 local / national (i) enhance national health systems resilience***). With over 135 guidance documents, largely populated by the United Nations, WHO and UNICEF, the site aims to better inform responses in crises and conflict settings (Singh et al., 2020). The examples of triage and sexual and gender-based violence (SGBV) (see Annex 7) provide clear illustrations of how standardized approaches to dealing with pandemic threats in crisis settings are not necessarily appropriate and could do more harm than good.

An HDP nexus approach to biological disasters has been emerging through the application of conflict-sensitive approaches to COVID-19 responses and new partnerships between response agencies and peace actors. An illustration of the former is Oxfam's (nd) guidance for taking into account current and potential new conflict risks in the context of COVID-19 response. Oxfam's rapid conflict sensitive analysis is outlined in Annex 8. The analysis is used to inform the development of monitoring indicators throughout the response and to inform accountability mechanisms to affected communities (Oxfam, nd). Other examples of conflict-sensitive guidance are available. For example, Saferworld (2020a) provides sector-specific conflict considerations for COVID-19 response teams in relation to WASH, protection, shelter and camp management, democracy, human rights and governance, gender equality, sustainable economic development, conflict prevention and peacebuilding.

An example of the latter is when humanitarian action and conflict-prevention expertise have been combined to inform COVID-19 responses. In Yemen, peacebuilding coordination hubs became forums for rapid COVID-19 assessments and supported response planning (Saferworld, 2020a) (see Annex 9). While in Sudan, UNDP worked with health authorities and community leaders through community-management committees, peace committees, natural-resource groups, police networks, and others to respond to the pandemic (UNDRR, 2020).

The final theme in this subsection is the advancement of social safety-net and social-protection mechanisms that provide new means to support populations confronted with multiple cascading risks (contributing to ***Priority 3 local / national (j) strengthen social safety-net mechanisms***). Though challenges abound (see Cooper, 2018), there are examples of success. In MENA, evidence of establishing or adapting social-protection systems to respond to shocks are evident. For example, the Tunisian Ministry of Social Affair's social system scaled-up, providing cash transfers as part of early responses to COVID-19 (Peters et al., 2022). In Jordan, the standardisation of definitions and measurements of vulnerability offer potential to improve humanitarian targeting of refugees (though at present natural hazards are not included in the conception of vulnerability) (Peters et al., 2022). While in Iraq, it is hoped ongoing efforts to build a single registry will support the development of social safety-net programmes in the future.

The case of Yemen reveals opportunities for collaboration across the HDP nexus in the context of social protection and assistance. Yemenis are enduring armed conflict, humanitarian crisis and economic collapse and, more recently, contending with the COVID-19 pandemic alongside natural hazard-related disasters, a cholera epidemic and desert locust infestation (Ghorpade and Ammar, 2021). Despite an expanded social-protection mechanism existing pre-conflict, programmes and services are now disbanded, many development programmes closed and demand for humanitarian aid has increased. Helpfully, the previous national cash-transfer system provided the foundation for the World Bank's Yemen Emergency Crisis Response Project, implemented by the Social Fund for Development and Public Works Project (Peters, et al., 2022). Moreover, perseverance of the state service-delivery capacity is written into the 2019 Humanitarian Response Plan (contributing to ***Priority 4 local / national (g) ensure continuity of operations, social economic recovery and basic services in post-disaster phase***).

The case of Yemen demonstrates many areas of alignment between development and humanitarian programming, which could be enhanced through greater HDP nexus action. There is, for example, often a shared focus on cash assistance, the poor, food insecurity and internally displaced populations (IDPs), and commonalities in the delivery systems employed (Ghorpade and Ammar, 2021). As a result, it can be the case that households receive multiple benefits from different programmes while others receive none. This suggests there are possibilities for enhanced targeting and support through "…the harmonization of transfer values and mutually intelligible approaches to geographical and household targeting. Improved coordination can also result in (i) maximizing complementarities between programmes, such that recipients of low-transfer-value programmes can benefit from top-ups and complementary services offered by other agencies (representing a beneficial form of programme overlap…" (Ghorpade and Ammar, 2021: 5).

## Global and regional levels: priority areas a-i

Dedicating finance to addressing complex and compound risks has historically been under par (see Peters, 2019). At international level over the past few years, interest and appetite for exploring risk-sharing and transfer mechanisms have been growing. And more recently, consideration of how existing mechanisms can be adapted to become operational in contexts where risks intersect (contributing to ***Priority 3 regional / global (b) promote disaster risk transfer and sharing mechanisms and instruments within international community***). Financing AA, for example, has been advanced through the Risk-informed Early Action Partnership (REAP)[8], and the InsuResilience Global Partnership. Other initiatives such as the Crisis Lookout Coalition - launched in 2021 - are leading global advocacy to reform disaster financing. Improved prediction capabilities together with pre-agreed financing, it is argued, could help improve quality and timeliness of responses in the event of a trigger being met. In a similar vein, efforts

8 https://www.early-action-reap.org/

under the Grand Bargain to address the humanitarian financing gap are calling for greater investment in anticipatory finance.

In another example of HDP nexus action (***contributing to Priority 3 regional / global (b)***), WFP describes various interventions and mechanisms for supporting integrated climate-risk management, which help improve prospects for peace. This includes tailoring climate-risk insurance services for food-insecure populations, enabling access to weather index insurance (through the R4 Resilience Initiative) and, in partnership with the African Risk Capacity, establishing a climate-protection mechanism (ARC Replica) to allow humanitarian agencies to purchase climate-risk insurance policies to improve finance for response to extreme drought (WFP, 2019).

At a regional and global scale, there remains much work to do to better understand what mechanisms and instruments could best be suited to delivering social safety nets in contexts affected by multiple shocks and stressors (Cooper, 2018). Alongside various investments in evidence-gathering and research, entities such as the World Bank are advancing measures to assess programme performance (contributing to ***Priority 3 regional / global (g) social safety net development***). The World Bank's Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE) provides means to assess the scope and performance of social-protection programmes (World Bank, nd). The Bank finds that "… safety nets are better positioned than ever to help households manage the risks associated with the multiplicity and complexity of shocks" and are among a number of well-recognized tools for enhancing resilience of at-risk communities (World Bank, 2018). The Atlas, it is hoped, could help address the low coverage of national safety-net programmes in high-risk disaster-prone contexts by, among other things, challenging the heterogeneity of programme design to be able to respond flexibly when shocks occur (World Bank, 2018).

Adaptive social protection (ASP) is another example of a mechanism with the potential to address multiple vulnerabilities associated with systemic risk. Originally conceived as bringing together social protection, DRR and climate change, ASP has evolved to adapt to multiple shocks a community might face. As the World Bank (2018: np) notes, "This recognition has resulted in many complex questions, including precisely how best can SSNs [social safety nets] and social protection be equipped to help households manage diverse types of shocks across myriad country contexts". This has been pursued by scaling up and scaling out (enlarged geographical area, broader range of shocks covered, additional beneficiaries, additional benefits). One such example is the adaptive approaches used to reorientate existing social safety-net and social-protection programmes to respond to food insecurity, lack of basic services and livelihood loss due to armed conflict (World Bank, 2018). A conflict-sensitive monitoring approach has been employed that encompassed GPS technology, real-time data flow, identification of conflict-related vulnerabilities, IDPs, female-headed households and youth. The inputs combined to create a Distress Index which subsequently informed fund allocation (World Bank, 2018).

A swathe of social-protection investments are ongoing globally. Of note is the Sahel Adaptive Social Protection Programme (SASPP) (contributing to ***Priority 3 regional / global (g) social safety net development***). Entering its second phase (2020-2025), the SASPP strengthens adaptive social-protection systems across Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal, to bolster climate resilience among highly vulnerable households. It is also expanding the reach of shock-responsive cash-transfer programmes (World Bank, 2022). Progress has been made in establishing social registry in Chad and Mali, and in a number of countries governments provide co-finance: Senegal provides 85 funds for the national Family Security Transfers programme; Burkina Faso allocated $5.3 million to support the development of a social safety-net system; Mauritania allocated $10 million to a social safety-net project; and the Mali government contributed $1 million towards the Mali Emergency Safety Nets Project Jigisemejiri (World Bank, 2019).

Social-protection systems also offer scope to be adapted to support more-anticipatory mechanisms across the HDP nexus. Of note are the piloting of design features that could make social-protection systems capable of responding to shocks. In Mauritania and Niger, satellite imagery and food-insecurity modelling are helping improve drought prediction to inform triggers for shock-responsive social protection (World Bank, 2019). While in MENA, social-protection systems offer an entry point for developing shock-responsive and anticipatory-action interventions – particularly in contexts where DRM governance is limited. There are plenty of options for maturing the existing systems, including digitisation, expanding the range of shocks considered and geographical coverage of recipients, integration with early-warning systems (EWS) allowing for more pre-emptive action, and placing greater emphasis on longer-term risks and vulnerabilities (Peters et al., 2022)

## Priority 4: Enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction

Improving how we collectively manage disaster risks to take better account of how risks cascade across systems and sectors (UNDRR, 2022a), requires designing and deploying comprehensive risk-management approaches. It also requires consideration of systemic risk. DRR experts are generally well-versed in the notion that "Societal choices are at the heart of why some individuals and groups are more vulnerable to disasters, experience proportionally greater immediate impacts due to exposure and lack of resources, and face slower recovery and long-term impoverishment" (UNDRR, 2022a: 203). Addressing structural inequality, through development, offers one avenue through which to address systemic risk and leave no one behind (UNDRR, 2022a). Failure to do so means at-risk populations may become trapped in cycles of response and recovery, and made worse through persistent risk creation. Risk-informed development approaches, coupled with comprehensive risk management, offer pathways towards disaster resilience; requiring action across the HDP nexus.

This section on ***Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction,*** includes examples of multi-hazard early-warning systems, as in Yemen. Insights from the Lebanese Red Cross show how citizens' concerns over conflict risk can be an entry point for enhancing disaster-management capabilities, and later expanded to include a broader range of hazards. This section features efforts to integrate 'do no harm' and conflict-sensitive approaches into DRR programming, as well as examples of psychosocial support being offered to individuals suffering from trauma related to violence and forced resettlement. It provides examples of linking humanitarian and climate action, including the Climate Charter - which encourages humanitarian agencies to take greater consideration of climate-change risks and impacts into account. Finally, it showcases innovations in adapting disaster-recovery tools and methods to conflict settings, such as the UNDP, World Bank and EU guidance on post-disaster needs assessments for conflict settings.

*Priority 4: Enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction,* includes examples from 11 Sendai Framework priority areas (highlighted in blue).

## Pillar 4: Enhance disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction

### National and local levels

(a) update disaster preparedness and contingency policies, plans and programmes, considering climate change scenarios

(b) develop people-centred multi-hazard, multisectoral forecasting and EWS, disaster risk and emergency communications mechanisms - tailored to users

(c) promote resilience of critical infrastructure for response

(d) establish community centres for public awareness and stockpiling

(e) adopt public policies to strengthen coordination and funding for relief and post-disaster recovery and reconstruction

(f) train disaster responders and strengthen technical and logistical capacities for emergency response

(g) ensure continuity of operations, social economic recovery and basic services in post-disaster phase

(h) disaster preparedness, response and recovery exercises as appropriate to local needs

(i) promote cooperation of diverse institutions, authorities and stakeholders for post-disaster reconstruction

(j) incorporate DRM into post-disaster recovery and rehabilitation, use relief phase opportunities to reduce disaster risk, including temporary settlements for disaster displaced

(k) develop guidance for preparedness for disaster reconstruction

(l) consider relocation of public facilities and infrastructure in post-disaster reconstruction process

(m) strengthen local authority capacity to conduct evacuations

(n) establish case registry and mortality database

(o) enhance recovery scheme for psychosocial support and mental health services

(p) review national laws and procedures on international cooperation

### Global and regional levels

(a) coordinated regional approach to prepare for and respond to disasters that exceed national capacity

(b) promote standards, codes, operational guidelines to support coordinated action in disaster preparedness and response, with lessons learnt for reconstruction

(c) develop regional multi-hazard EW mechanisms in line with Global Framework for Climate Services

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|---|
| (d) enhance International Recovery Platform |
| (e) improve water-related disaster risk understanding and strategies |
| (f) regional cooperation with preparedness through common exercises and drills |
| (g) promote regional protocols for sharing response capacities |
| (h) train workforce and volunteers in disaster response |

## National and local levels: priority areas a-p

Sendai Framework ***Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction***, aims to ensure the entire risk-management cycle is pursued with a view to achieving sustainable disaster resilience. An important starting point for achieving this goal is having in place multi-hazard EWS. This report does not seek to map or assess the progress made in multi-hazard EWS but to identify examples that offer scope to better address systemic risks. For example, a number of pilot initiatives across MENA have sought to bring together insights on conflict, displacement and disease outbreak (contributing to ***Priority 4 local / national (b) develop people-centred multi-hazard, multisectoral forecasting and EWS***). In one example from 2019, the UK Met Office, US National Aeronautics and Space Administration (NASA) and University of Maryland predicted cholera outbreaks in Yemen with 92 per cent accuracy (Peters et al., 2022). Weekly guidance tailored to humanitarian agencies facilitated pre-emptive action in locations identified as high risk (Met Office, 2018). Though nascent, it is worth noting that elsewhere, the integration of conflict analysis into anticipatory action is being explored. A highly political endeavour - especially where governments are party to a conflict - consideration is nonetheless being given to the feasibility of incorporating violent conflict data into multi-hazard EWS (Maxwell and Hailey, 2020).

In other related examples, in-depth contextual analysis has informed humanitarian action on displacement risks. For example, the Start Fund's anticipation window has been actioned in Iraq and Lebanon to address displacement risk in contexts where heightened military action and destruction of refugee camps have been imminent (Start Network interview, in Peters et al., 2022). In such complex environments, it is local and expert judgement rather than predefined automated triggers that were critical for prompting action (Start Network interview, in Peters et al., 2022).

Of note is the International Organization of Migration (IOM) Displacement Tracking Matrix (DTM) which monitors displacement and mobility to inform humanitarian planning and response (IOM, nd). The DTM covers countries typically regarded as being crisis or conflict-affected, including for example Iraq, Lebanon, Libya, Sudan and Yemen. A valuable tool, the DTM is used to help decision-making of national disaster-management authorities (NDMAs) and national and international agencies in preparedness, response and recovery - including, for example, the mapping of possible evacuation and displacement sites (IOM, nd).

The development of early-warning early-action (EWEA) mechanisms for protecting livelihoods in Sudan offers interesting insights when operating in contexts experiencing concurrent shocks and stresses (contributing to ***Priority 4 local / national (b) develop people-centred multi-hazard, multisectoral forecasting and EWS***). A Food Security Technical Secretariat under the Ministry of Agriculture and Irrigation, with support from the Food and Agriculture Organization (FAO) and the EU developed EWS triangulating local to global information systems, coupled with risk and vulnerability analysis, and the identification of soft and scientific triggers. In 2017, deteriorating conditions triggered a rapid needs-assessment to identify suitable interventions and target populations. The release of funds through an FAO Special Fund for Emergency and Rehabilitation Activities enabled pre-emptive action to protect

pastoralist livelihoods, including the distribution of animal feed, vaccinations, mineral licks, and training on destocking. Triggers were again met in 2018 when drought peaked, and funds similarly mobilized. Of particular relevance to this report is the fact that early action in some contexts can sidestep the political impediments caused by declaring a drought. Declaration of drought "…is generally a politically fraught process, AA [anticipatory action] has suffered less from government interference because it is focused on reducing and mitigating future impacts rather than requiring declarations of actual drought situations" (Peters et al., 2022: 50). In 2020, in Sudan, the Secretariat ,together with WFP and FAO, established a EWEA Technical Working Group to coordinate future early actions, expanding the range of hazards considered to include flood and desert locusts (Peters et al., 2022).

There have also been efforts to assess the possibility of using OpenStreetMap (OSM) mapping to overcome geospatial data availability in conflict settings as a starting point for enabling planning of early actions. A study on the feasibility of utilizing OSM in Sudan for this purpose found that "OSM mapping has shown to be a suitable and useful tool for anticipatory mapping, closing crucial data gaps and enabling the planning of early actions in FbA [Forecast-based Action] for disasters in conflict settings" (Scholz, 2021: 2).

Expanding the range of hazards considered within the remit of disaster risk management - to include a range of societal hazards for example - could present new entry points for managing disaster risk. The case of Lebanon illustrates this (contributing to ***Priority 4 local / national (f) train disaster responders and strengthen technical and logistical capacities for emergency response***). In locations where the Lebanese Red Cross delivered school safety programmes, citizens were primarily concerned about inter-community conflict, sectarian violence and cross-border conflict risk. Joint activities under the school safety programmes were conducted to bring together conflicting communities, and the entry point of conflict risks used as a starting point from which a broader range of hazards were subsequently addressed - including fire, flood and seismic risk (Peters, 2019b). With a strong emphasis on equal service provision, the Lebanese Red Cross harnessed the primary concerns of the communities to address these and other risks, which don't feature high in the public consciousness. The Lebanese Red Cross experience demonstrates "…how compromise and management of competing interests can be effective in building greater social cohesion, in addition to delivering such essential DRR capacities as first-aid training and coordination of religious-affiliated ambulance-service provision" (Peters et al., 2019b: 6). Another important lesson is that the local conditions were routinely referred to as a 'fragile peace'. This helped challenge disaster-risk managers' perceptions of what a conflict context looks like. It also prompted "…the need for a deeper and more nuanced understanding of the shades of conflict inherent in any society, and a more sophisticated analysis of the politics and dynamics of inclusion and exclusion" (Peters, 2019: 28).

Working across the HDP nexus also means working across scales. In armed conflict contexts, collaboration with local actors is commonplace and provides a means to enhance disaster response. This was the case in DRC where rebel-held areas impeded international responses to the Ebola crisis (contributing to ***Priority 4 local / national (f) train disaster responders and strengthen technical and logistical capacities for emergency response***). Local actors - Comité de Pilotage, Forum Humanitaire de Oicha and others - worked with Oxfam to shadow casework to learn about hygiene standards, knowledge of disease prevention and transfer, and treatment, and subsequently use that knowledge in outreach work (UNDRR, 2020).

The need for DRR to be embedded into the HDP nexus (and in both developmental and humanitarian action) is none more apparent than in contexts where a rapid escalation of armed conflict can trigger an immediate switch between developmental and humanitarian work. To expand, the escalation of violent and armed conflict in crisis settings has direct implications on the aid agency presence, with implications for the continuation of programming and ability to utilize development expertise in the context of humanitarian responses. Take the case of Yemen. With increasing conflict in 2015, aid

moved from development to humanitarian agencies. The number of Yemeni NGOs doubled (from 2017-2019) in response to the need for local implementation counterparts and business opportunities to address unmet needs (Mena and Hilhorst, 2021). Despite pre-civil-war developmental challenges still being present, such as water-related disasters, the reorientation to new needs and the focus on relief required a change in the type of interventions being carried out (Mena and Hilhorst, 2021). Though some agencies were able to continue working on water-related disasters under humanitarian WASH schemes, most ceased (Mena and Hilhorst, 2021). With more effective HDP nexus planning, addressing pre-existing and continuing developmental needs through humanitarian responses, could offer ways to ensure continuity in service provision and support to at-risk communities.

In this regard, to achieve more-effective DRR action involving humanitarian and peace actors, lessons can be drawn from emerging collaborative work across the nexus. The conscious consideration of complex and cascading risks in DRR programming is becoming more visible – as documentation emerges on how such conditions have been proactively taken into account in the design and delivery of risk-management interventions (contributing to ***Priority 4 local / national (h) disaster preparedness, response and recovery exercises as appropriate to local needs***). For example, following Cyclone Idai in Zimbabwe, a cross-disciplinary workshop was convened to develop a multi-sector risk framework to inform response and recovery efforts. Specifically, to consider how responses might affect other fragility-related risks across the country – as part of the GFDRR's DRM-FCV Nexus programme (GFDRR, 2022b).

Similarly in Afghanistan, care has been taken to ensure DRR interventions take measures to reduce the risk of violent and armed-conflict escalation. Finding that vulnerability assessments routinely neglect consideration of conflict - which in turn could risk project designs inadvertently exacerbating social and violent conflict - agencies have started to adapt their approaches. This included, for example, undertaking conflict analysis and adopting principles of 'do no harm' (Mena et al., 2019). Although not considered conflict-resolution or peacebuilding interventions, a number of DRR and livelihoods projects felt that being more conflict-sensitive helped to contribute towards reducing conflict risk. Specific actions included: deploying conflict-analysis tools; integrating conflict risk in project planning; and designing community projects on forest degradation that incorporate conflict-resolution mechanisms (Mena et al., 2019).

Relatedly, where ambitions to better manage natural resources, disaster risk, stabilization and conflict prevention are intertwined, designing interventions appropriate to local needs necessitates working towards multiple ambitions. Community dialogues and joint management of natural resources in support of resilience building, such as IOM's work in Kenya, PNG, Mauritania and the Lake Chad region, also helped foster peaceful and sustainable relationships among mobile populations (UNDRR, 2020). Here, the interventions explicitly bring together community-stabilization, conflict-prevention and environmental-protection ambitions.

Though rarely explicit, there is evidence of DRR adopting tools, skills and approaches from the peace cadre. Whether in peaceful, conflict or crisis settings, interviews with DRR experts from across the globe have revealed how community-level interventions require a high level of diplomacy, networking and relationship building (Peters, 2022). Community-based programming has been identified as one of the most effective causal pathways towards peace (Peters, 2022) (contributing to ***Priority 4 local / national (h) disaster preparedness, response and recovery exercises as appropriate to local needs***). Though substantial further research is required to validate the anecdotal evidence, document the specificities, and decipher what aspects might be suitable as replicable lessons learnt, initial insights reveal positive examples of creating interventions that address dual risks of natural hazard-related disaster and conflict risks (see Annex 10). In other examples, human-security approaches to DRR have been adopted – as in a UNDP and UNDRR community-resilience programme in Mauritania (UNDRR, 2020). While the Building Resilient Communities in Somalia consortium implemented conflict-sensitive

drought- and flood-mitigation interventions to reduce the risk of conflict increasing vulnerabilities to drought (UNDRR, 2020).

Anecdotal evidence also points to the possibility of harnessing shared intersectional characteristics, such as health conditions or impairments, to bring together individuals from conflicting communities. DRR experts from East Africa believe that in some contexts, where individuals identify first with a particular social category or condition - such as a disability or group identity - this can provide opportunity for collaboration through shared identity characteristics or experiences (Peters, 2022). In turn this can represent a "…small building block from which bigger peacebuilding and conflict-prevention actions could be made" (interview with East African DRR expert, in Peters, 2022: 161).

The examples above build the case that to advance Sendai Framework outcomes in contexts of systemic risk, vulnerability must be understood in all its facets; because vulnerability to natural hazards interacts with other forms of shocks and stresses, including climate change, economic volatility, violence, conflict and more (Peters, 2019; UNDRR, 2019). For specific groups, such as displaced populations - whatever the driver or multicausal driver of displacement - the need to think holistically about vulnerability and risk is clear. The IDMC Disaster Displacement Risk model for the Horn of Africa, for example, affirmed that 'socially created situations of vulnerability' coupled with high concentrations of exposed populations has a large impact on displacement risk. This is evident in the case of the Central African Republic, Iraq and the Rohingya (UNDRR, 2019). Thus, in relief, and in post-disaster recovery and rehabilitation contexts, disaster risk-informed humanitarian programming is needed; and this needs to be based on a solid understanding of patterns of vulnerability.

To expand, take the case of Syria. In absence of a recognized state, the humanitarian organization GOAL provided critical inputs to maintain the water-supply system and establish a bread-market system in collaboration with local stakeholders, small businesses and intermediaries (Patel et al., 2021). Providing support to displaced populations in Idleb and North Aleppo, GOAL adopted 'do no harm' approaches which intentionally aimed to support local coping strategies to deal with disaster and conflict shocks. Their experience finds that "…the impact of conflict and protracted crisis does not render the goals of the SFDRR [Sendai Framework for Disaster Risk Reduction] moot, but only necessitates a greater emphasis on important facets of successful and disaster-risk-informed humanitarian programming - something the SFDRR needs to better incorporate into its guidance to Member States. GOAL's disaster-risk-informed interventions in north-west Syria provide evidence that DRR can be used to reduce risk in FCAS [fragile and conflict-affected states]" (Patel et al., 2021: 6).

Just as GOAL's work in Syria found that DRM could be pursued in conflict contexts by building on pre-existing networks, likewise COVID-19 responses in conflict settings found value in utilizing existing programmes. Limited public-health data has been a longstanding impediment to effective risk management – hence its inclusion in the Sendai Framework. For low-income and conflict-affected contexts, monitoring and planning responses to COVID-19 highlighted the multiple challenges involved in collecting case data. One example from Somalia shows how telephone interviews with households already participating in a cash-transfer programme was a useful method to complement laboratory testing and mortality data from the health system. So much so, the use of a rapid mortality-surveillance tool and syndromic score identified case rates at 159 times higher than the average laboratory cases reported by WHO (Seal et al., 2021) (contributing to ***Priority 4 local / national (n) establish case registry and mortality database***).

For many countries, the COVID-19 pandemic is an additional complication to pre-existing interacting and concurrent disaster impacts and risks. Often neglected, an important component of any response to single and multiple shocks and stressors is psychosocial support. Progress has been made in this regard in the context of the Rohingya. To expand, COVID-19 became one of a number of compound risks affecting conflict-displaced Rohingya populations in Bangladesh. Makeshift settlements caused

deforestation, increasing vulnerability to monsoon rains, flash flooding and landslides, as was the case in 2018. Higher rates of SGBV were evident, particularly for women, girls and individuals identifying as LGBTQI+. Psychosocial activities to support survivors of violence and forced resettlement (contributing to ***Priority 4 local / national (o) enhance recovery scheme for psychosocial support and mental health services***) have been forthcoming. The Reaching Out-of-School Children Project is one example, providing refugee and host communities with safe and equitable learning opportunities, including SGBV-awareness-raising, psychosocial well-being activities, and infrastructural improvements to ensure a safe physical learning environment to tackle high exposure rates to natural hazards (UNDRR, 2019).

Working across the HDP nexus could provide an opportunity for DRR experts to learn from delivering psychosocial support interventions that are more commonly found in responses to conflict settings. Interventions in Somalia, for example, seek to tackle SGBV through economic empowerment targeting women, coupled with clinical, psychological and legal support (UNDRR, 2019). While in the central Sahel region - Burkina Faso, Mali and Niger - insecurity from non-state armed groups and inter-communal disputes have placed hundreds of thousands of people, including children, at heightened risk of violence and displacement. Deliberate attacks and threats on schools led to several agencies stepping-up provision of psychosocial support (contributing to ***Priority 4 local / national (o) enhance recovery scheme for psychosocial support and mental health services***). For example: in 2020 the Norwegian Refugee Council launched the Better Learning Programme to enable teachers to support children's recovery from trauma experienced by conflict and displacement; in 2021 the United Nations High Commissioner for Refugees (UNHCR) provided psychosocial support training to teachers in refugee and IDP-hosting areas; while UNICEF has provided psychosocial support through interventions in education, child protection and nutrition (NRC et al., 2022). Mental-health support is particularly necessary for specific groups at heightened risk of violence and exclusion (see Annex 11).

Finally, addressing biological hazards from an HDP perspective gives rise to a focus on the intersectionality of at-risk groups, particularly those often neglected in mainstream development and humanitarian responses. For example, the Joint United Nations Programme on HIV and AIDS (UNAIDS) is tackling sexually transmitted infections and HIV prevalence in conflict and humanitarian settings. This includes working to address the exclusion of stigmatized groups who are not routinely considered in humanitarian responses, peace processes or risk-reduction efforts, such as sex workers, drug-dependent users, incarcerated persons and undocumented migrants. The adoption of HDP-nexus principles to UNAIDS work, for example, includes training on HIV in Port au Prince, Haiti, where gang violence is prevalent. They are also harnessing the power of well-connected gay and lesbian networks to advance risk communications including in contexts where it is politically dangerous for such groups to exist.[9]

## Global and regional levels: priority areas a-h

Working across the HDP nexus to address complex and cascading risks in contexts of protracted conflict often requires collaborative efforts. The United Nations Assistance Mission to Somalia (UNSOM) is one such case (contributing to ***Priority 4 regional / global (a) coordinated regional approach to prepare for and respond to disasters that exceed national capacity***). Working across the spheres of defence, diplomacy, development and humanitarian, the mission supports the establishment of the Somali federal government and a range of ambitions in state building, democratization and peacebuilding (IMCCS, 2021). UNISOM established a Drought Operations Coordination Centre to help encourage preventative action to avert famine, coordinate humanitarian relief efforts and, where required, relocate drought-affected IDPs. In 2020, increasing recognition of the compounding impact of climate

9 Interview with Gary Jones, UNAIDS. September 2022.

variability and change on livelihood security, and in turn Al-Shabaab recruitment processes - which were exploiting livelihood hardships by offering stable income and a sense of belonging - UNISOM recruited an environmental advisor. The advisor's remit includes: bringing environmental security approaches to the mission; considering the potential impact on conflict dynamics of environmental projects; and supporting the implementation of environmental peacebuilding approaches (IMCCS, 2021) (see earlier in this report).

Another example of collaboration is the advances being made to link humanitarian and climate action. The compounding effect of climate variability and change on dynamics of conflict and security has become an increasing concern for humanitarian agencies; and in particular what this means practically for operational responses. One of the most prominent developments here is the Climate Charter instigated by the ICRC, which aims to address humanitarian needs related to climate and environmental stress, maximize environmental sustainability of responses, call for climate action, and work across humanitarian-climate-environmental sectors (contributing to ***Priority 4 regional / global (b) promote standards, codes, operational guidelines to support coordinated action in disaster preparedness and response, with lessons learnt for reconstruction***). As well as sitting firmly within the HDP nexus in its ambition to work across a broad range of shocks and stressors, address immediate through to long-term vulnerabilities, and better understand and act on the intersection of multiple threats, it also necessitates enhanced action on DRR. For example, the Charter includes the commitment to:

- "…reduce risks and vulnerability to shocks, stresses and longer-term changes through an increased focus on climate change adaptation, disaster risk reduction and anticipatory action…
- strengthen our collective capacity to reduce risks, anticipate crises, act early and ensure the sustainability of our activities…
- [and] work collaboratively across the humanitarian sector and beyond to strengthen climate and environmental action" (ICRC / IFRC, 2022: np).

As of January 2022, the Charter had 205 humanitarian organization signatories, from over 80 countries - including state signatories of Switzerland, the United States, and Norway.[10] The Charter includes a commitment to enhance anticipatory action on climate-related disaster risks including in crisis and conflict settings. The Anticipation Hub (nd) has a related ambition, to devise anticipatory-action programming for armed-conflict settings. This is in recognition of the fact that most anticipatory-action programming is happening in non-armed-conflict settings, despite high needs and demand in conflict settings (contributing to ***Priority 4 regional / global (b) promote standards, codes, operational guidelines to support coordinated action in disaster preparedness and response, with lessons learnt for reconstruction***). Two distinct options have been identified: Forecast-based action of hydro-meteorological hazards in conflict settings (to act early in anticipation of climate-related hazards in ongoing conflict settings), and forecast-based action on forecasts of humanitarian consequences of conflict (i.e. food security and displacement) (Anticipation Hub, nd). Accompanying this ambition is a Red Cross Red Crescent Working Group aiming to devise early-action protocols and forecast-based financing by the Disaster Response Emergency Fund (DREF), and an external group to provide a platform for exchange of technical ideas and solutions (Anticiaption Hub, nd).

This subsection closes with a few important reflections on disaster recovery. The shift described in the GAR19 (UNDRR, 2019) to addressing cascading and compound risks, including in complex and crisis settings, has similarly been reflected in a maturing of thinking on disaster recovery (contributing to ***Priority 4 regional / global (d) enhance International Recovery Platform***). For example, at the 5th

10 The Charter Team email communication, 18th January 2022

World Reconstruction Conference (WRC) in 2022, consideration was given to how best to develop "…institutional systems for recovery from complex and interconnected disaster-conflict events, including pandemics, natural hazards and climatic shocks and stressors" (World Bank et al., 2022: 1). Consideration was also given to how recovery processes could help reset development pathways towards more-resilient futures and, in doing so, incorporate climate change adaptation, poverty reduction and human security (World Bank et al., 2022). Marking a shift from the previous focus on natural hazard-related disasters, the 2022 event encouraged the risk-management community to reconsider what kinds of recovery-governance models are required to manage recovery from complex and interconnected disaster-conflict events. More than being mindful of conflict, the WRC went one step further in proposing that there needs to be "strategies to build resilience to future shocks in a way that helps to resolve conflict" (World Bank et al., 2022: 2).

Finally, some progress has been made in adapting disaster-recovery tools and methods to complex operating environments. The World Bank, UNDP and EU, for example, developed guidance on adapting post-disaster needs assessments (PDNAs) to conflict settings (UNDP et al., 2019). Relatedly, the African Union Programme of Action included a commitment to develop operational guidelines on post-disaster response, recovery and reconstruction in conflict settings (AU and UNDP, 2022 – forthcoming). The PDNA guidance (UNDP et al., 2019) does not seek to alter conflict conditions by addressing resolving conflict - considered beyond the remit of a PDNA - but does intend to ensure post-disaster and recovery operations are sensitive to conflict dynamics, to avoid exacerbating existing tensions or creating new tensions (AU and UNDP, 2022 – forthcoming). Relatedly, following an earthquake in Haiti in August 2021, the ILO mainstreamed conflict-sensitivity into their PDNA process. This included sector-based assessments of conflict risk as well as a pursuit of social cohesion and peace. Their experience led to the design of a peace-responsive recovery strategy, and subsequent development of a PDNA training module for the employment and livelihood sectors.[11]

11 Email communication with Elisa Selva, ILO. September 2022.

# 3. Actionable recommendations

Haitian Village Devastated by Tropical Storm "Hanna"
Gonaives, Haiti. UN Photo/Marco Dormino.

# 3. Actionable recommendations

To deliver comprehensive risk-management approaches capable of addressing systemic risk, action across the HDP nexus is required. Below are a set of headline and detailed actionable recommendations to progress towards this overarching ambition.

## Headline recommendations

- **Advancing the HDP nexus:** Demonstrate the value of DRR for advancing the HDP nexus - harness DRR expertise on risk-informed development and the integration of DRR into humanitarian action as a basis for developing comprehensive risk-management approaches to HDP nexus action. Relatedly, address the evidence and practice gap on pursuing disaster resilience and peace.
- **Priority 1:** Work across the HDP nexus to better understand risk, including systemic risk. Use vulnerability as the common thread to explore and reveal how different hazards, shocks and stresses interrelate.
- **Priority 2:** Align risk-governance systems across the HDP nexus – to avoid one risk-management system undermining another. Take into consideration the complementarity of risk-management actions across different sectoral, spatial, temporal and hazard dimensions.
- **Priority 3:** Harness the multitude of financing commitments and mechanisms from across the HDP nexus to positively exploit their added value to pursue shared comprehensive risk-management outcomes. Jointly mobilize additional resources where required.
- **Priority 4:** Design and deploy flexible DRM systems and actions corresponding to the systemic, complex and cascading nature of risks. Utilize systems, institutions and mechanisms from across the HDP nexus to pursue disaster-resilience outcomes.

## Advancing the HDP nexus

**Headline recommendation: Demonstrate the value of DRR for advancing the HDP nexus - harness DRR expertise on risk-informed development and the integration of DRR into humanitarian action as a basis for developing comprehensive risk-management approaches to HDP nexus action. Relatedly, address the evidence and practice gap on pursuing disaster resilience and peace.**

### Detailed recommendations

- **To advance the UN Senior Leadership Group (SLG) Recommendation 1:** 'Accelerate efforts to risk-inform programming in development, humanitarian and peace actions respectively, and strengthen collaboration on DRR in humanitarian and crisis contexts', donors and United Nations agencies need to provide dedicated technical, political and financial backing. With adequate support, the ambitions within the current and future workplan of the IASC Task Force 4 Humanitarian-Development Collaboration (chaired by Oxfam and UNDP) can be achieved.[1]

- **To ensure DRR considerations are systematically embedded into humanitarian action,** UN Humanitarian Coordinators should demand that DRR technical expertise, indicators and targets are integrated into routine processes and procedures. This includes for example: including a DRR component into the Humanitarian Programming Cycle Quality Criteria Worksheet; creating DRR targets as part of Collective Outcome and Multi-Year Response Plans; and employing the Checklist for Action on scaling-up DRR in humanitarian action.[2] With regard to the latter, this includes reviewing the Checklist and identifying priority actions when commencing the annual humanitarian programming cycle to inform the Humanitarian Needs Overview (HNO) and Humanitarian Response Plan (HRP).[3]

- **To enhance the technical capabilities required to advance collaborative working on systemic risks,** DRR experts should undertake dedicated training programmes to upskill on the terminology, tools and technical content of a range of different approaches to dealing with risks, including humanitarian, climate, peace and conflict, economic and political stability, and stabilization, among others. Reciprocally, basic understanding of the concepts, approaches and trends in disaster risk needs to be shared across the HDP cadre. Building on this foundation, practitioners, policy makers and funders from all fields should undertake training on systemic risk, with human-resources departments making this a mandatory component of career development. Specific sessions can be dedicated to systemic risk analysis, linking with the Global Risk Assessment Framework (GRAF).[4]

- **To help mature thinking and action specifically on DRR in the HDP nexus,** UNDRR should compile and publish a quarterly newsletter on DRR in the HDP nexus, listing summaries of relevant funding and investment opportunities, the latest literature, training and knowledge exchange, and an events calendar. Relatedly, agency- or sector-specific training may need to be created or use made of existing resources such the MOOC on DRR and humanitarian aid in conflict settings.

- **To scale-up awareness of DRR within the HDP nexus,** United Nations agencies – specifically UNDP and UNDRR - should consider harnessing the political attention on climate fragility and stabilization to advance DRR in conflict and crisis settings. For example, existing joint analysis efforts, such as those undertaken by the UN Climate Security Mechanism, would benefit from stronger inclusion of DRR expertise and, in doing so, strengthen links between DRR-humanitarian-climate security cadre. This could entail, for example, seconding a DRR expert to support the Mechanism to ensure integration of DRR technical knowledge.

- **To strengthen the DRR-peace aspect of the HDP nexus and advance DRR in setting of violence and conflict,** a range of actions by operational agencies from across the HDP nexus are required, including: the integration of conflict in vulnerability and disaster-risk assessments; guidance on applying conflict-sensitive approaches to DRM operational tools and manuals; dedicated finance and adapted results frameworks to pursue DRR in difficult operating environments; and piloting of programmes with dual outcomes for disaster resilience and peace.[5] Such an ambition would require, among other things, training on integrated disaster and peace programming developed through innovative collaborations between disaster risk and peacebuilding expertise. Relatedly, existing work on environmental peacebuilding may be a useful entry point in some contexts, to consider the viability of DRR as a tool for peace and similarly climate change adaptation as a tool for peace.[6]

- **To encourage enhanced collaboration between disaster-peace expertise to support HDP action,** national-level multi-stakeholder platforms should be supported to adopt more-holistic and systemic approaches to prevention, mitigation, preparedness, response and recovery - that take account of the dynamic nature of peace, conflict and violence. Globally, an IASC inter-agency group on risk should be established.[7]

- **To address the significant research gaps on the intersection of disasters-conflict-peace,** science and research councils should dedicate funds to enable empirical research. Research should focus on identifying the causal pathways and mechanisms between disasters, conflict and peace, and how intentional action can alter those pathways to secure peace outcomes. With such insights, it will become more feasible to provide guidance on where, when and how to act to reduce disaster impacts in conflict and post-conflict settings, reduce disaster-related conflict risks, and increase peace potential.

- **To take responsibility for their own climate emissions, Member States must set and achieve ambitious climate commitments,** and all United Nations agencies and NGOs should consider their carbon footprint. Taking heed of recommendations by protection agencies concerned with the climate-disaster-conflict intersection, all stakeholders interested in pursuing peaceful disaster-resilience outcomes should be concerned with their own contribution to tackling climate change. Agencies can: become signatory to The Climate and Environment Charter for Humanitarian Organizations; develop green action plans for reducing carbon emissions; establish an environmental-footprint baseline as a means to track reductions progress; and make operations green by prioritizing eco-friendly supply chains and shifting to renewable energy.[8]

## Recommendations: Priority 1. Understanding disaster risk

Headline recommendation: ***Work across the HDP nexus to better understand risk, including systemic risk. Use vulnerability as the common thread to explore and reveal how different hazards, shocks and stresses interrelate.***

### Detailed recommendations

- **To achieve a more in-depth analysis of disaster risk,** Member States, United Nations agencies and others are strongly encouraged to support national and international efforts to bring together hazard, exposure, vulnerability and risk-mapping, and support interoperability across risk-information systems. And, to facilitate collaborations with entities who collect data on other shocks and stresses (including climate change, pandemic threats, economic and political stability, violence, conflict and peace) to assess the relevance and feasibility of combining data sets for more in-depth analysis of compound risks. Agencies are strongly encouraged to commit to moving away from compartmentalized understandings of risks and move towards composite assessments (that assess the interaction between component hazards and threats). In time, international and national agencies can harness insights from CRAF'd to achieve this goal.[9]

- **To align with the updated conceptualization of the construction of disaster risk,** NDMAs and their technical and scientific counterparts are encouraged to commit to expanding the range of hazards assessed within multi-hazard risk analysis, forecasting and early-warning systems. Specifically, to include biological and societal hazards. In some contexts, NDMAs and United Nations agencies may want to consider violence and conflict as a societal hazard.[10]

- **To help develop interoperability across the disaster-risk ecosystem** and enhance capacities to understand and respond to complex risks, donors and the United Nations system are urged to provide financial backing to CRAF'd to help meet the fundraising target of US$15-25 million.[11]

- **To ensure continued functionality of databases on risk information and impacts,** and to tackle the risk of data loss in the event of their destruction (e.g. by technological disaster, armed conflict), Member States, together with their respective scientific and technical agencies, are encouraged to form collaborations with information and technology specialists to digitize climate and disaster data with pre-agreed protocols for access. This includes digitising historical records.

- **To mature joint multi-hazard and vulnerability analysis to inform multi-year planning,** sustained donor support is required to learn from the Secretary General's Joint Steering Committee to Advance Humanitarian and Development Collaboration. This includes learning from existing priority countries and applying replicable lessons to a broader range of risk contexts.[12]

- **To encourage a shift away from managing disasters and towards managing risk,** government and non-government agencies are encouraged to utilize existing data and analysis, such as the INFORM Risk, INFORM Warning, and INFORM Severity Index. These products, and others, can help mature national and sub-national early-warning and early-action mechanisms - as well as preparedness and risk-reduction measures, to become responsive to elevated risk and emerging crises.

- **To better understand complex risks as perceived by at-risk and affected communities,** operational agencies are strongly encouraged to harness mobile technologies to expand and nuance their understanding of risk perceptions, risk tolerance and other variables on vulnerability,

exposure and coping capacities. Coupling such insights with social-media analytics could help build a more comprehensive picture of affected and at-risk communities' experiences and needs in situations of compound and cascading risks.

- **To better understand and act on climate security challenges,** systematic information exchange between those working on natural hazards and those on stabilization and climate security is required. This includes ensuring that disaster risks are fully embedded into the Climate Security Mechanism's risk assessments. This could provide a stepping stone for subsequently demonstrating the potential value of national and sub-national risk-management entities to addressing hazard-related risks in insecure contexts. To advance this goal it would be logical to start with the Africa Working Group on DRR and the G5 members, given the concentration of climate-security investment in the Sahel and West and Central African region.[13]

## Recommendations: Priority 2. Strengthen disaster-risk governance to manage disaster risk

Headline recommendation: ***Align risk-governance systems across the HDP nexus – to avoid one risk-management system undermining another. Take into consideration the complementarity of risk-management actions across different sectoral, spatial, temporal and hazard dimensions.***

### Detailed recommendations

- **To enable Member States to craft local and regional DRR strategies and plans that better reflect conditions of systemic risk,** UNDRR and UNDP are requested to expand the current guidelines on what an effective DRR strategy comprises. New guidelines should take the form of a suite of options that accounts for the diversity of risk-governance arrangements within a country, and the different constellations of compound risk. This may include more-radical options, such as a DRR strategy being a nodal organizing structure, with commitment to delivering disaster resilience embedded into sectoral plans.[14]

- **To broaden the range of hazards being considered in national DRR strategies, policies and plans,** Member States are encouraged to review the ISC and UNDRR (2020) hazard definitions and classifications report, alongside existing national strategies, which include a broad range of societal hazards (such as explosive remnants of war, armed conflict and violence). Member States should consider the appropriateness of expanding their own hazard classifications. They should also review the legislative and governance frameworks that tackle different hazards and risks, and (re)consider the NDMA's parameters of risk governance.[15]

- **To better align local and regional DRR strategies, plans and policies to the range of hazards under the remit of the Sendai Framework,** regional entities should lead the way in encouraging Member States to make clear the interaction between hazards and vulnerability conditions – including technological, biological and societal hazards. The African Union Programme of Action is a useful example, with the explicit ambition of addressing linked disaster, fragility and conflict risks. Regional DRR Platforms should be harnessed as opportune moments to encourage Member States to similarly reflect on the symbiotic relationship between vulnerabilities in their risk-governance frameworks.[16]

- **To ensure clear risk-governance arrangements are in place in contexts where risks co-locate,** Member States - with support from risk-governance experts - should map and assess the institutional and policy architecture for risk governance in relation to the risk landscape. At national level, this should be undertaken with the intention of identifying entry points for

enhanced collaboration between the government ministries and departments responsible. Member States should ensure there are clear roles and responsibilities for addressing complex risks with pre-agreed standard operating procedures or guidelines for collaboration (including data sharing, resource allocation). At regional level, this should include mapping regional strategies and action plans - including those originating from the humanitarian, peace, and climate-security domains - to identify opportunities for enhancing disaster-risk governance arrangements and achieving existing regional DRR strategies.

- **To ensure adequate legal, policy and institutional frameworks for people at risk and affected by displacement,** Member States are strongly advised to review their existing legal and policy landscape in conjunction with specialist displacement and protection agencies. Consideration should be given to ensuring adequate protection to at-risk and displaced persons in light of the multi-causal drivers of displacement, and any protection gaps addressed. Rights-based human-mobility approaches should be embedded into disaster-risk governance arrangements to ensure adequate protection and support is mobilized for all individuals on the move, whatever the multi-dimensional triggers and drivers.[17]

- **To enhance disaster-risk governance at sub-national and local level,** operational agencies are strongly encouraged to utilize insights from conflict-risk analysis (see Priority 1 recommendations) to inform intervention design - and make adaptations where required to minimize the risk of negatively affecting conflict dynamics. For example, this may include collaborating with conflict and peace experts to integrate additional components such as: decentralized governance mechanisms; equitable inclusion of at-risk populations in consultation and decision-making processes; and proactive measures to support social cohesion.

- **To ensure equitable support for pursuing disaster resilience,** a geographically focused pilot should be crafted wherein multi-hazard risk and vulnerability analyses (see recommendations in Priority 1) are overlaid with analysis of humanitarian and development-programming coverage to reveal gaps and overlaps. The findings can then inform specific commitments on levelling-up disaster resilience for conflict-affected populations.[18]

- **To advance the operationalization of disaster-risk governance in the HDP nexus,** Member States should request UNDRR continue to allocate dedicated spaces to the topic in upcoming regional and global DRR platforms. Discussions should reflect an analysis of current progress and gaps in advancing risk governance in the HDP nexus, and what this means for the Midterm Review of the Sendai Framework and remaining implementation period. Insights, and ideally commitments, to advance action, should then be shared with a broader audience at United Nations convening spaces such as the 2023 Sustainable Development Goal Summit.

## Recommendations: Priority 3. Investing in disaster risk reduction for resilience

Headline recommendation: ***Harness the multitude of financing commitments and mechanisms from across the HDP nexus to positively exploit their added value to pursue shared comprehensive risk-management outcomes. Jointly mobilize additional resources where required.***

### Detailed recommendations

- **To finance comprehensive risk-management approaches,** all donors and funding entities should convene an internal consultative process to devise their own distinct position on, and contribution to, key concepts such as the HDP nexus, comprehensive risk management and systemic risk. Position papers should be crafted that articulate the donor's contribution based on their unique strengths from across their development, DRR, humanitarian, conflict and peace cadre. For development-finance institutions (DFIs), this should include a bespoke offer to clients to encourage integration of comprehensive risk-management approaches into financial and investment arrangements.

- **To inform fund allocation, investment and programming priorities,** government donors and DFIs are encouraged to take heed of the suite of composite risk indices (such as GRAF, INFORM, GFDRR Disaster-FCV Vulnerability Index) and adopt or craft their own composite index which can better capture complex, cascading and systemic risk.

- **To improve targeting and support in contexts where development, humanitarian, climate and peace programmes are implemented concurrently,** the New Ways of Working should be used as a prompt to United Nations agencies to assess the viability of harmonising action. Improved coordination could offer opportunities to enhance complementarity between programmes and design-linked interventions that support at-risk and affected populations to move into and out of crises. This could include, for example: improved coordination and data sharing for needs-assessment; harmonisation of cash-transfer values and of household and geographical targeting; thematic alignment to achieve shared goals; harmonising responses to political economic risks; mapping the relationship between different financing horizons; harnessing connections between programmes to provide complementary services; mutually intelligible beneficiary databases; and commonly agreed monitoring measures to allow for intervention comparison.[19]

- **To finance the technical integration of DRR in HDP settings,** lessons from Haiti and Pakistan should be heeded. This includes the need for dedicated finance to provide qualified field staff to champion DRR in the Humanitarian Programming Cycle and the establishment of performance indicators on DRR in the HRP monitoring framework. UN Resident Coordinators and UN Humanitarian Coordinators should ensure DRR expertise is part of HNO, HRP and crisis planning teams, without exception.

- **Specific financing gaps across the HDP nexus should be addressed, such as the need to enhance DRR financing commitments in crisis and conflict settings.** Government donors and DFIs should champion fund allocation and mobilization for DRR in difficult operating environments - including conflict settings. To do this, GFDRR should share the lessons learnt from the implementation of their DRM-FCV Nexus programme. Where government donors and DFIs are yet to dedicate such finance, they could commission internal reviews to assess the strategic value of enhancing investments on climate and disaster risk in difficult operating contexts – following the lead of AFD (see Annex 6). As clients to DFIs, Member States can

request dedicated finance for climate and disaster risk in conflict and crisis settings whether as part of development, humanitarian or climate-funding portfolios.[20]

- **To better understand the DRR financing landscape for conflict contexts,** donors are strongly encouraged to perform a portfolio review. The review should identify current and emerging funding streams and volumes for DRR in different types of conflict, violence and crisis settings. Based on this, options for enhanced tagging of DRR fund allocations can be drafted and put into operation to enhance longer-term analysis of funding trends.[21] Other necessary actions include: establishing a clear link between funding of DRR and attainment of existing DFI or government donor strategies; articulating the return on investment, informed by an evaluation of the DFI or government donor portfolio in relation to the sustainability of financing commitments over the past five to ten years relative to their inclusion of DRR; developing a future-scenarios paper that assesses the potential positive, negative and neutral impacts on a DFI or government donor's reputation (related to the quality and sustainability of its financing commitments) as a result of different levels of DRR integration.[22]

- **To mobilize funds for risk-informed humanitarian action,** guidance for fund mobilization should be devised - as recommended in UNDRR's recent mapping of capacities and needs to enhance risk-informed humanitarian action. The guidance would need to be informed by a review of the available funding mechanisms for DRR in humanitarian settings (a workstream led by UNDP), and set in the context of fund mobilization for shared comprehensive risk-management outcomes across the HDP nexus.[23]

- **To pursue adaptive management in response to systemic risks,** donors should pool expertise on flexible finance from across the HDP nexus to draft a set of guidelines for piloting DRR investments in a range of fragile, crisis and conflict settings. This may include, for example, flexibility to adapt programming priorities or budget-line allocations in response to changing risk profiles.

- **To advance, and finance, the risk governance of transitions into or out of crises,** NDMAs, supported by the United Nations system, should pilot a range of financing arrangements in contexts contending with multiple compounding risks (including natural hazards, climate variability and change, violence and armed conflict). The pilots should include the explicit ambition to harness the added value of the HDP cadre, and could include adaptations to crisis modifiers, forecast-based financing, anticipatory action, shock-responsive social protection, disaster recovery and more. On this basis, it will then be possible to design and operationalize strategic bridging interventions that can support transitions into and out of crisis. Once tested, successful approaches can be replicated at scale. The pilots should be accompanied with real-time processes for evidence and learning, to document lessons, required adjustments and funding and investment outcomes.[24]

- **To enhance the adaptation of social safety-net mechanisms and social-protection schemes so they can be mobilized in crisis contexts,** dedicated technical advisory work is required to assess existing country-specific mechanisms and to propose a suite of adaptive measures to accommodate fluctuating conditions of risk – including displacement risk. Building on the considerable empirical experience, Member States are strongly encouraged to work with United Nations counterparts and DFIs to mobilize adapted social protection in crisis settings through design tweaks (e.g., waived conditionality in a crisis), piggy-backing (e.g., using social registry to channel preparedness and response assistance), vertical expansion (e.g., additional benefits in response to new risks), horizontal expansion (e.g., expanded beneficiary or geographical coverage), and alignment (e.g., aligning response to bolster social-protection systems).[25]

- **To access and utilize climate funds in support of HDP nexus outcomes,** investigation is required to identify national and subnational contexts where opportunities to become accredited recipients of climate funding could be feasible in conflict and crisis settings. Further work is also required to adapt access requirements of multilateral climate funds - such as the Green Climate Fund - through enhanced direct access and simplified approaches.[26] With access, the design and delivery of climate change adaptation programmes offer potential to address HDP nexus outcomes for climate- and disaster-resilience and peace. To support such efforts, financial and technical support to mature the public financial-management capacities of Member States would be a significant help, as would more flexible operational protocols, and a shift in donors' risk perception, appetite and tolerance when disbursing climate funds in crisis and conflict contexts.[27]

- **As a contribution to comprehensive risk management, to improve response to pandemic threats in the context of systemic risk,** lessons from COVID-19 responses should be documented and their replicability for dealing with other biological threats assessed. Specific attention should be given to drawing out lessons to protect and ensure safe spaces for individuals at high risk of violence, including SGBV. Intersectional dimensions of violence should be considered, including SGBV and sexual orientation, gender identity and expression and sex characteristics (SOGIESC). Given that community mobilization in public-health responses in conflict settings proved to be vital to Ebola and in COVID-19, guidance should be aimed at local as well as national entities.

## Recommendations: Priority 4. Enhance disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction

Headline recommendation: ***Design and deploy flexible DRM systems and actions corresponding to the systemic, complex and cascading nature of risks. Utilize systems, institutions and mechanisms from across the HDP nexus to pursue disaster-resilience outcomes.***

### Detailed recommendations

- **To better act on the range of risks present within a country,** Member States are strongly encouraged to develop a national risk register scanning the full range of risks from across the HDP nexus. An oversight body to monitor and update the register should also be responsible for ensuring adequate mechanisms are in place for reducing risk, preparedness, response, recovery, rehabilitation and reconstruction. This will require cross-ministerial and departmental efforts acting on their respective mandates. Gaps in risk governance can then be identified, and expertise pooled to address systemic risk.[28]

- **To pursue comprehensive risk-management approaches, non-traditional entry points should be harnessed.** For example, to mobilize action on DRR in conflict and crisis settings, citizens' concerns over conflict risks can be used as an entry point for advancing risk-management capabilities and, over time, expanded to consider a broader range of threats and hazards.[29] Current responses to the pandemic could provide further opportunities for risk management, with scope to expand the range of hazards and risks discussed with communities and local-national risk management entities.

- **To encourage more-diverse partnerships between different risk specialists,** operational agencies should consider establishing collaborations between DRR and humanitarian agencies, and peace specialists, to take advantage of their relative expertise. This includes ,for example,

utilizing peacebuilding coordination hubs for data collection and outreach of disaster-risk information. And, partnering to consider the value and viability of including elements of peace processes in DRR interventions e.g., peace dialogues or performing peace rituals.

- **To mobilize early warning and early action across the HDP nexus,** Member States should provide a high level of financial, political and operational support to continue testing innovative mechanisms to do just this. This includes, but is not limited to, the Red Cross Red Crescent Climate Centre's innovations on anticipatory action in conflict settings, the START Network's anticipation window, and forecast-based finance for climate-related hazards in conflict settings. Particularly relevant to this report is the ability of some pre-emptive mechanisms to use pre-defined triggers to prompt action - side-stepping the politics of declarations of disaster that can hinder action.

- **To enhance support for displaced persons and those at risk of displacement,** the contextual specificities of each case require dedicated attention (see Annex 12). Evidence from UNHCR, IOM and other specialist displacement and protection agencies have recommended the need to: conduct empirical research to better understand the multi-causal drivers of displacement; collect disaggregated data to inform tailored mitigation, preparedness, and response measures and solutions; and recognize and respond to the specific interplay of displacement risks, to deliver tailored approaches to protection.[30]

- **To develop evidence and action on disaster recovery in the context of systemic risk,** NDMAs together with DRR Platforms should dedicate specific workstreams to the theme. In collaboration with research entities, empirical data collection is also required on disaster recovery in a range of settings with different risk profiles. Such insights would help ground understanding of the formal and informal disaster-recovery processes across a sub-set of contexts, to inform the design of disaster-recovery plans and processes. Without this, there is a danger that negative unintended consequences may unfold as formulaic processes are ill-suited to the nuances of different risk landscapes. As a learning process, the evidence-gathering would suit a multidisciplinary team from across the HDP cadre.[31]

- **To encourage HDP-nexus approaches to disaster recovery,** existing guidance such as the PNDA for conflict settings require testing in a range of contexts – including armed conflict, post-conflict and crisis settings, and subsequent editions created through collaborations across the HDP nexus for different settings. The PNDA conflict settings report should also be regarded as the first in a series of guidance documents, with others supporting the transition from immediate recovery to medium- and long-term recovery, and the transition to risk-informed development. Building on the current guidance, consideration should be given to testing approaches that integrate aspects of conflict management and prevention into natural hazard-related disaster-recovery processes in conflict settings; and exploring the practical and ethical viability of bringing together these two domains.[32]

- **To develop a comprehensive risk-management approach to combating biological hazards,** Member States, United Nations agencies and other stakeholders are strongly advised to continue global vaccination efforts for COVID-19 and learn from effective collaborations between peacebuilding mechanisms and health professionals. Vaccination is important not only to combat the pandemic in conflict and crisis settings, but to limit the impact of the pandemic and pandemic-response measures as drivers of conflict and instability. Recommendations to adopt a holistic response to pandemic recovery that incorporates conflict-prevention efforts and resilience programming have been voiced. Any analysis of COVID-19 impacts should go beyond health metrics to include governance, political stability, poverty, environmental and climate impacts and other domains - to inform the design of comprehensive risk-management approaches to biological hazards.[33]

- **To enhance the use of 'do no harm' and conflict-sensitive approaches by DRM experts,** operational agencies are strongly advised to review their existing policies and guidelines and make adjustments where required to ensure conflict dynamics are systematically taking place. A plethora of toolkits and guidance notes exists on conflict-sensitivity, targeting different sectors (though less tailored for DRR), and recent experiences in responding to COVID-19 have reaffirmed the need for the application of conflict-sensitivity. Operational agencies undertaking DRR in settings of violence and conflict are strongly encouraged to partner with conflict and peace specialists to adopt 'do no harm' approaches as a minimum, and explore the feasibility of applying conflict-sensitive approaches. Taking something practical, like the operationalization of 'do no harm' and conflict-sensitivity approaches, also provides a common purpose for multiple diverse stakeholders to coalesce on – and should be considered an opportunity to bring together technical specialists from across HDP nexus. Where conflict sensitive approaches are not mandated, agencies (and their donors) are strongly advised to make this a routine part of any intervention design, implementation and monitoring process.[34]

- **To mature understanding and action on the intersectional dimensions of systemic risks and impacts,** Member States, United Nations and other stakeholders are strongly advised to take greater consideration of the intersectional dimensions of vulnerability. Particular attention should be paid to LBGTQI+, SOGIESC, stateless persons and undocumented migrants, and conflict-displaced populations, among others. Mainstream DRR discourse promotes whole-of-society approaches. For this to happen, it must be recognized that intra-societal cohesion is not always present, and certain sub-sets of society can face exclusion and discrimination. Efforts to address aspects of intersectionality and specific individual groups within society require dedicated attention in complex risk settings. Regressive laws and practices (for example, towards homosexuality and women's rights) affect inclusion and equity of achieving disaster resilience for all.[35]

- **To provide tailored psychosocial support to individuals affected by disasters and other impacts of systemic risk,** specialist psychosocial support services - including those with experience in interpersonal violence and conflict trauma - should collaborate to offer integrated packages of support. Donors should consider this a necessary requirement of any response or recovery intervention, and provide funding accordingly. Specific consideration should be given to women and girls, LGBTQI+ and those with particular SOGIESC, drawing on the experiences of agencies who provided tailored support to these groups during the COVID-19 pandemic.

- **To support DRR experts in becoming more competent in engaging with systemic risks,** dedicated spaces within DRR convening at national, regional and global level are required. This includes, for example, at regional DRR ministerial conferences and platforms, the Global Platform on DRR, and in national DRR Platform convening. Specific gaps in understanding and action - such as the disaster-conflict intersection - should be given specific attention. At a global scale, the existing informal group of champions on DRR in conflict settings should be financially supported in becoming a formalized network on disaster risk reduction in contexts of violence, conflict and fragility, and accompanied with an annual international conference on the theme in the margins of an existing forum such as Understanding Risk, the Fragility Forum, or Global Platform on DRR. [36] Addressing specific linked risks (such as disasters-conflict) will help advance action on systemic risks in the long term.

- **Finally, to enhance the commitment of humanitarian agencies to climate action,** all must become signatories to the Climate Charter. Under the Charter, commitments to enhance climate change adaptation, DRR and AA are encouraged, as are the ambitions to work collaboratively to anticipate crises, act early and work towards reducing the carbon emissions of operational activities.[37]

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# Annex

## Annex 1: Taking stock of how violence compromises progress in the Sendai Framework priorities

- **Priority 1:** Many conflict contexts lack quality and timely disaster-risk data at the appropriate level, which challenges the Sendai Framework Priority 1 on understanding disaster risk. Yet, organizations working to reduce risk in conflict contexts may be too consumed by the acute crisis to adequately gather the necessary data to understand the full dimensions of disaster risks.

- **Priority 2:** The Sendai Framework and many disaster-management plans rely on a strong state to employ an effective and efficient management of disaster risk. However, in conflict contexts, the burden on the state is quite high and, in most cases, the central governance body is unable or unwilling to implement DRR because of the impact of the conflict on state structures.

- **Priority 3:** This priority focuses on the need to have cost-effective and instrumental institutionalized measures to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation from a disaster. Yet, these are financial instruments and resources that are absent in conflict contexts, again consumed by acute crises rather than future risk. The financial systems that would normally address this challenge or provide innovative mechanisms and policies are not found in conflict contexts but in more-stable contexts that can divert resources toward that end.

- **Priority 4:** Build back better in the recovery, rehabilitation and reconstruction phases is a critical opportunity for states to be prepared ahead of a future disaster. Yet this priority is rarely incorporated in the acute relief phase of humanitarian response, and actors may struggle to move to recovery, rehabilitation and reconstruction due to consecutive crises. Achieving the goal of building back better requires an investment in the systems that underlie the delivery of basic goods and services to build recovery, which may not even be identifiable in conflict contexts.

***Source: quote from Patel et al., (2021)***

## Annex 2: The positive peace potential of DRR

- Disasters and disaster-related activities have the potential to influence – but not determine – violent conflict risk and peace potential in conflict-affected regions; disasters can magnify or ameliorate existing conflicts and shape how subsequent conflicts are addressed violently or non-violently.

- DRR is possible to varying extents in diverse contexts affected by violent conflict, though organizations tend to avoid or conduct minimal programming amidst high-intensity armed conflicts.

- A disaster can increase awareness of structural violence and poor governance, and this awareness may represent the first step towards overt conflict and eventually reordering relationships in ways that sustain peace. However, durable peace is far from a certain outcome where vulnerabilities to disasters and conflicts are mutually reinforcing.

- Different social groups may act cooperatively to reduce their shared disaster risks where state-sponsored services are limited, which could ameliorate communal conflict while magnifying conflict risk between civil society and the state. Regimes may try to avoid these conflict risks by stymieing civil-society participation in delivering resources, but this can inadvertently aggravate tensions.

- Disasters may create spaces for new interactions involving governments and social groups, which could lead to novel sources of conflict or cooperation. DRR and disaster relief are often painted as politically neutral, but even seemingly innocuous activities (or lack of) can influence conflict risk and peace potential. It is important to recognize that in conflict-affected contexts, humanitarian and development interventions including DRR become part of the conflict. Rather than striving to merely 'do no harm' … DRR can encourage pathways to peace potential through activities taken before, during and after disasters, that reduce vulnerabilities, improve equitable resource distribution, encourage cooperation and, in some cases, find opportunities for social or political (re)integration.

- DRR may have the greatest opportunities for advancing peace potential where programming is designed to address multiple pathways that are self-reinforcing.

***Source: quote from Peters (2022)***

## Annex 3: Community-managed disaster risk reduction and conflict-risk reduction

**Step 1:** Conduct a conflict (risk) analysis. When doing this step, ensure you consider in your analysis: conflict profile (include type of conflict, level of conflict – e.g. local, national); conflict causes (environmental, political, economic, socio-cultural); conflict actors (stakeholders involved, power relations, role in conflict); conflict dynamics (analysing trends, risks, opportunities); summary of data, and analysis (high – medium – low conflict risk).

**Step 2.a:** Determine the scope and focus of the project (part of planning phase). Discuss what is appropriate in the context. Work on a conflict sensitive resilience or DRR project, or on conflict-risk reduction.

**Step 2.b:** Community action planning for the resilience project in a context or area affected by conflict, considering conflict risk and disaster risk (including climate change).

**Step 3:** Establish or strengthen community structures for the resilience project. This may include existing development, DRR, or other committees at a community level, or specific peace committees.

**Step 4:** Implementation of resilience measures, to address disaster risks or conflict risks. A focus on livelihood security in this stage is important.

**Step 5:** Monitoring and documentation of the outputs and outcomes of the resilience project (including collecting stories of change).

**Step 6:** Advocacy and fundraising for upscaling the work done, to further enhance people's resilience.

***Source: quote from Loof (2019: 9).***

## Annex 4: Disaster-FCV Vulnerability Index

In the aftermath of two civil wars, South Sudan is contending with COVID-19, climate change, droughts and floods among other coexisting and compounding risks. In all 10 states, spatial data on hazards, exposure of populations and assets were collated alongside data on conflict fatalities, food insecurity and forced displacement. Hazard and exposure data were overlaid with conflict-related data to develop a composite score which formed the Disaster-FCV Vulnerability Index.

The Index revealed state variances, with some of the most conflict-affected such as Unity and Jonglei scoring highest. The findings informed the World Bank's US$45 million International Development Association (IDA)-financed Enhancing Community Resilience Project in the country.

Concerningly, the Index revealed that the increased frequency of compound risks, including flood and drought, contributed to a rise in community-level conflicts – a finding later supported by remote damage and needs assessments following seasonal floods July-October 2020. Among those most vulnerable to compound risks were women, girls and internally displaced populations.

Several local-level interventions have been supported that are helping combat livelihood insecurities, such as crop diversification to groundnuts in Aweil East County – creating more-stable food supplies. In Nasir County, rehabilitation dukes have helped protect crops and shelters from flooding.

The insights gathered have informed a set of recommendations given to the Government of South Sudan in support of the development of a DRM strategy. This includes for example the recommendation to establish a national approach to collecting data on disaster and conflict risks, and establishing coordination entities at state and national level responsible for tackling disaster-conflict risks. GFDRR have found that "When designing and implementing a DRM intervention, it is critical to consider the full range of interconnected and often compound risks affecting people and communities, including those that lie at the nexus of DRM and FCV. As highlighted by this engagement, siloed approaches, which consider only one set of risks in isolation, are typically not able to grasp how risks interact with one another. This isolation often has grave impacts that could be counterproductive to resilience building." (GFDRR, 2022a: np).

***Source: GFDRR (2022a)***

## Annex 5: INFORM products

INFORM open-source products include the following:

| Product | Description | Application | Analysis | Status |
|---|---|---|---|---|
| INFORM Risk | Global, open-source risk assessment. | Development, risk reduction, crisis prevention, preparedness | Generalized risk of a crisis based on structural conditions | Operational |
| INFORM Warning | A way to objectively measure and compare the severity of crises and disasters. | Preparedness, early warning, early action | Indications of elevated risk, emerging crisis or crisis trigger | In development |
| INFORM Severity | Supports decisions on preparedness, early warning and early action. | Early action, crisis response | Severity of an existing crisis | Release in 2020 |

***Source: DRMKC, nd.***

## Annex 6: Proactive development-finance institutions and government donors

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

- Disaster risk is now included in the Peace and Conflict Analysis Tool and has been used in recent assessments in Nepal and Lebanon.
- DRR projects in violent and armed conflict contexts have been documented, including in Afghanistan, Chad, Colombia and Lebanon (see Peters, 2019).
- German Federal Ministry for Economic Cooperation and Development (BMZ) funding has been provided to GFDRR to work in collaboration with the World Bank. This has facilitated disaster-risk management to be integrated into investments in FCV contexts, particularly on issues of social cohesion.
- The theme has been championed as part of Germany's role as Co-Chair of the OECD International Network on Conflict and Fragility (INCAF).

*Global Facility for Disaster Reduction and Recovery (GFDRR)*

- The intersection of disaster and conflict risks, and the need to adapt disaster-risk management approaches as a result, has been made explicit in the latest GFDRR Strategy 2021-2025.
- Funding for DRR in conflict contexts has been mobilized under the Disaster Risk Management-Fragility, Conflict and Violence Nexus Initiative.
- Integrated multi-hazard risk analyses have been tested, bringing together natural hazards and FCV to inform investment design and delivery.
- Technical team leaders (TTL) acting as champions of this theme, have recorded videos documenting their experiences of integrating the disaster-conflict links into project designs, to help internal advocacy efforts.

Swiss Agency for Development and Cooperation (SDC)

- Under Switzerland's International Cooperation Strategy 2021–2024, technical training on disasters, conflict and other issues, has sought to encourage inclusion of DRR in responses in FCV contexts.
- The Climate, Environment and Disaster Risk reduction Integration Guide (CEDRIG) has been used to systematize the integration of these topics into development and humanitarian interventions, as well as identify possible impacts on carbon emissions.

Agence Française de Développement (AFD)

- Various grants have been awarded to implement DRR activities in contexts of violence and conflict (including in Haiti and Lebanon).
- In 2021, AFD commissioned ODI to undertake an internal review to identify barriers, opportunities and incentives to enhance action between technical specialists working on issues of disasters, peace and conflict.

***Source: adapted from Peters (2021).***

## Annex 7: COVID-19 in crisis settings, the case of triage and SGBV

- **Triage:** COVID-19 triage systems, critical to effective health-system response, require adaptation to local conditions. Experiences in Myanmar, South Sudan, DRC and Somalia share similarities – such as temperature screening at the health facility entrance. This is also similar to global guidance for standard procedures. But in contexts where other infections are commonplace, such as endemic malaria – as in DRC and South Sudan - relying on cough or fever can create unnecessary burden on investigations teams and increase the risk of cross-contamination. Community-based triage was found to be useful in many contexts, as was use of rapid tests – as in South Sudan – to rule out other conditions. In conflict settings, whether isolation was voluntary – as in Somalia, DRC and South Sudan - or compulsory – as in Myanmar - was particularly sensitive. It was found that in contexts where trust of government is low, people's willingness to test or seek treatment was affected.

- **SGBV:** Measures to respond to COVID-19 and reduce risk of infection, in particular restrictions on movement and social isolation, were found to exacerbate SGBV risks and violence against women and girls. Such measures reduced the ability of survivors to access support, or distance themselves from their abusers. In Haiti and Lebanon, integration of SGBV programming lessons into COVID-19 responses have proved helpful. This includes for example using digital technology and social media to reach target populations – including use of social-media influencers in Lebanon, and providing fully women-led service delivery as in Haiti.

***Source: adapted from Singh et al. (2020)***

## Annex 8: Rapid conflict analysis

The following rapid conflict-analysis questions can be used as part of a rapid analysis (which includes gender and safe-programming considerations) with partners and field teams when planning an intervention. They can also be used on a weekly or daily basis to understand how the situation is unfolding and to take rapid decisions on how to change the intervention strategy. Depending on the context, these questions could be very sensitive, so it would not be appropriate to use them with communities directly at the risk of exacerbating tensions.

### Understanding the conflict context:

- What is the history of conflict and violence in this community or between surrounding communities? Is there anything recent we need to be aware of?
- Where are the divisions and tensions in this community or between surrounding communities? (I.e., who are we potentially going to agitate in our response?)
- How does the conflict affect different groups of women (such as how are women uniquely affected by the conflict, are minority groups disproportionately affected?)
- Are there new conflicts or tensions arising, and who is most at risk?
- Are there any formal or informal mechanisms in place for governing or managing water sources or existing conflict-resolution mechanisms between divided groups that we could work with?

### Understanding the evolving COVID-19 situation:

- How are concerns about spread of, or treatment of, COVID-19 manifesting themselves throughout the area of intervention?
- What kind of information are people receiving about the spread and prevention of COVID-19? How do women receive information? Do they trust the information sources they receive from?
- How are preventive measures being implemented and enforced? And by whom?
- Is the government trusted or seen as legitimate in all communities it is supposed to serve? And is it using the crisis to withdraw political or civil rights in an excessive manner, not consistent with COVID-19 mandated response?
- Are health centres controlled or only serving one particular group?
- How have (local) armed groups responded to the COVID-19 outbreak? Do they seem open to providing access for humanitarian aid and health workers? Are there increased risks for aid diversion? Is there an increase in sexual and gender-based violence?
- Are (local) armed groups using movement restrictions and a potential decrease in security-force presence as manner to increase their control over areas?

### Thinking about our intervention:

- Are markets still accessible? Is access restricted or prevented by or for specific groups?

- Are water sources or water infrastructure being controlled and dominated by one particular group?
- How are public-health providers or local actors leading the response being perceived?
- How is Oxfam or partners perceived?
- What could go wrong and what tensions could erupt as a result of our intervention? (such as where we distribute, which communities we serve first, how we communicate our response, any feedback mechanisms used, who we hire?)

***Source: quote from Oxfam (nd)***

## Annex 9: Peacebuilding CSOs in Yemen adapt to support COVID-19 responses

Yemeni civil society organizations (CSO) – often functioning with a small core staff and volunteers – have been central to the pandemic response efforts throughout the conflict. Navigating complex political divides, supply shortages and armed conflict, CSOs provide many of the functions typically the remit of local authorities. Working across the HDP nexus, including in many areas of peacebuilding, CSOs had to adapt their work to respond to the spread of COVID-19 across the country.

In Taiz, Yemen, organizations such as the National Organisation for Community built on their existing trusted networks to establish electronic community centres to pool insight and intelligence from across a range of local groups. This insight was then used to form a basis for COVID-19 case-monitoring and awareness-raising.

In conflict settings, sharing information can be highly politicized. The Youth Organization for Development & Democracy adapted its peacebuilding handbook to provide guidance on accurate and sensitive sharing of information related to the spread of the virus. In a similar vein, the Center for International Humanitarian Law and Human Rights adapted their work with schools to educate teachers and students on COVID-19 in collaboration with local doctors.

***Source: Saferworld (2020b)***

## Annex 10: Community-based DRR programming as a causal pathway to peace

Interviews with global DRR practitioners revealed a number of potential links between DRR and peace outcomes – as the following snippets reveal:

- In Yemen, DRR education and training programmes have increased awareness of the norms that give rise to linked disaster-conflict risks and have built capacities for youth-led peace activities.
- In Egypt, DRR programmes explicitly encourage people to foster a safer society – rather than revisit difficult aspects of a violent past.
- In Sierra Leone, post-conflict tensions were transcended when communities worked together to form disaster-management committees to respond to shared disaster risks.
- In DRC, a disaster reconstruction project on safer shelters facilitated a forgiveness ceremony to bring together two villages embroiled in violent communal conflict – to work together to build shelters.
- In Kenya and Ethiopia, water-reservoir projects not only help mitigate disaster risks but can create shared benefits and in turn cultivate prosocial relationships.

***Source: Peters (2022)***

## Annex 11: Psychosocial support for LGBTQI+

Identifying as LGBTQI+ or with particular SOGIESC, can leave individuals as the target of violence and exclusion. This is true in peacetime as well as in crisis and conflict settings, and notable during the COVID-19 pandemic where tailored support was required, and delivered:

- Exclusion of LGBTQI+, trans people and sex workers from COVID-19 relief efforts led the Youth Champs 4 Mental Health group in Fiji to provide tailored relief and mental-health support – including suicide prevention, alongside its efforts to offer mental-health services as part of first-responder services (Seglah and Blanchard, 2021).
- During the pandemic, Mawjoudin We Exist for Equality found demand for counselling the second most requested service after food aid. They provided medical assistance, food aid and vouchers, phone credit and housing support.
- Fundacin AMal Argentina provided psychosocial support via WhatsApp to LGBTQI+ people, refugees and migrant sex workers, alongside funds to support debts, accommodation and food aid.

***Source: Seglah and Blanchard (2021)***

# Annex 12: Climate-disaster-conflict interface, implications for protection agencies

## Advocate to close legal protection gaps

- Demand greater clarity on the legal basis for access to a country's territory.
- Continue to work in collaboration with the Platform on Disaster Displacement to better understand how the Global Compact on Refugees can ensure protection and humanitarian support to those forcibly displaced by natural-hazard-related disasters (UNHCR, 2018).
- Develop, implement and promote organizational Climate Action Frameworks (in line with UNHCR (n.d.) and the Norwegian Refugee Council) to steer future policy and advocacy work.

## Close knowledge gaps

- Take a longer-term perspective on tracking the multifaceted drivers of displacement in contexts where climate change, conflict and displacement interact, and grounding findings with the lived experiences of communities affected by this tripartite relationship.
- Pool financial resources and commission mixed-methods research to reveal new insights on displacement drivers, triggers and trends.
- Protection agencies should support calls for improved interoperability of displacement data sets, and coherence in definitions and key metrics.
- Use partnerships with meteorological organizations to examine the relative attribution of climate change to an event that has contributed to displacement.
- Lead the way in experimenting how climate-change-attribution analysis can be integrated into existing organizational tools and methods to better understand complex interactions.

## Broker new partnerships for policy and advocacy engagement

- Push back on securitized framings of climate change and redirect attention to the attainment of rights and the varying protection needs of displacement-affected people in a changing climate, in contexts of violence and conflict.
- Engage with UN Security Council members on humanitarian access, climate and hunger, protection of civilians and displacement linked to extreme weather events. Accelerate sectoral responses that support humanitarian and climate ambitions.
- Devise a strategy between like-minded agencies for how the proposed climate, environment and conflict action plans on the humanitarian impacts of climate-conflict-environmental nexus can be scoped further.
- Mainstream climate-resilient adaptation into multi-year interventions (e.g., for water, sanitation and hygiene; electricity; health; and education).
- Advocate for the financial inclusion of crisis-affected people through access to bank accounts, credit and other mainstream financial services.

- Collaborate with development counterparts specializing in disaster risk to design and deliver genuinely conflict- and displacement-sensitive disaster risk reduction interventions.
- Engage with NDMAs and join the Risk-informed Early Action Partnership (REAP) to champion displacement issues within early action (REAP, 2021).

***Source: quote from Peters et al., (2021)***

[1] This includes:

Mapping good practice and strengthening the peace element of the HDP nexus (workstream led by UNICEF);

Mapping of good practice of HDP nexus (workstream led by UNICEF);

Providing sector/cluster-specific practical guidance to HDP collaboration (workstream led by FAO and UNHCR);

Mapping good practice of humanitarian contributions to basic service delivery in protracted contexts (workstream led by OCHA);

Propose solutions for strengthening funding for joined humanitarian-development programming and bringing to scale (workstream led by UNDP);

Develop an IASC Conflict Sensitivity Accountability Framework (workstream led by IOM).

[2] UNDRR, 2021

[3] UNDRR, 2021a; UNDRR, 2021. Further detailed recommendations on harmonising tools, and approaches to jointly undertake systemic risk assessments can be found in UNDRR (2021).

[4] Coursea, 2022; UNDRR, 2021

[5] Peters, 2019; UNDRR, 2021

[6] Peters, 2019; Peters, 2022; Brown and Nicolucci-Altman, 2022; Peters et al., 2019e; van Schaik et al., 2019

[7] UNDRR, 2021; UNDRR, 2022 unpublished

[8] ICRC and IFRC, 2022; Peters et al., 2021

[9] Peters et al., 2022

[10] ISC and UNDRR (2020)

[11] CRAF'd, 2021

[12] UNDRR, 2021

[13] AU and UNDP, 2022 – forthcoming

[14] Peters et al., 2019a

[15] Peters, 2019; UNDRR and ISC, 2020; UNDRR, 2021

[16] AUC, 2017: 24

[17] Weerasinghe, 2021

[18] Peters et al., 2019d

[19] Ghorpade and Ammar, 2021

[20] GFDRR, 2020; UNDRR, 2021a

[21] Peters, 2021

[22] Peters, 2021

[23] Debling, 2022 – forthcoming

[24] Peters, 2021; Peters, 2021

[25] European Commission, nd

[26] Cao et al.,. 2021

[27] Cao et al.,. 2021

[28] Sillmann et al., 2022

[29] Peters, 2019

[30] Weerasinghe, 2021; Peters et al., 2021a

[31] AU and UNDP, 2022 – forthcoming

[32] UNDP et al.,. 2019; AU and UNDP, 2022 – forthcoming

[33] Yayboke et al., 2021

[34] Peters, 2019; Bousquet and Fernandez-Taranco, nd

[35] Peters, 2019

[36] Peters, 2021

[37] ICRC / IFRC, 2022