



Analysis of the Intersections between MHPSS, Climate Change & Gender Equality

Consultancy for the
MHPSS Collaborative &
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ACRONYMS

ACE	Adverse Childhood Experiences
AIDS	Acquired immune deficiency syndrome
AR6	IPCC Sixth Assessment Report
ATACH	Alliance for Transformative Action on Climate and Health
BAYWAN	Bay Women's Association Network
CCCM	Camp Coordination and Camp Management
C-CIQ	Comprehensive Climate Impact Quantification
CEFMU	Child, early, and forced marriage and unions
COP	Conference of Parties
COVID-19	Coronavirus disease 2019
DRR	Disaster risk reduction
ECD	Early Childhood Development
EMDR	Eye Movement Desensitisation and Reprocessing
EW4A	Early Warning for All
EWS	Early warning system
FAO	Food and Agriculture Organization
FSL	Food Security and Livelihoods
GAP	Gender and Power
GAT	Gender Action Team
GGPI	Global Gender Parity Index
GHG	Greenhouse gases
G-TEP	Group Traumatic Episode Protocol
HerAMS	Health Resources Availability Monitoring System
HESPER	Humanitarian emergency settings perceived needs scale
HIV	Human immunodeficiency virus
HNAP	Health National Adaptation Plans
IASC	Inter-Agency Standing Committee
ICD	International Classification of Disease
IDP	Internally displaced people
IPCC	Intergovernmental Panel on Climate Change
IPV	Intimate Partner Violence
JIAF	Joint and Intersectoral Analysis Framework
L&D	Loss and Damage
LGBTQI	Lesbian, gay, bisexual, transgender, intersex, and queer or questioning individuals
LMIC	Low- and Middle-Income Countries
LWPG	Lima Work Programme on Gender
M&E	Monitoring and evaluation
MDD-W	Minimum Dietary Diversity-Women
MEAL	Monitoring, evaluation, accountability and learning
MHM	Menstrual hygiene management
MHPSS	Mental health and psychosocial support
MICS	Multiple Indicator Cluster Surveys
MIRA	Multi-Cluster/Sector Initial Rapid Assessment
MISP	Minimum Service Package
MMAPP	Measuring Mental Health Among Adolescents and Young People at the Population Level
MNS	Mental, neurological or substance use
MoH	Ministry of Health
MoV	Means of verification

NAP	National Adaptation Plans
NBS	Nature-based solutions
NC	Nurturing Care
NDC	Nationally Determined Contributions
NELD	Non-economic losses and damages
NHS	National Health Service
PAF	Protection Analysis Framework
PHSA	Public Health Situation Analysis
PLHIV	People living with HIV
PTG	Post-traumatic growth
PTSD	post-traumatic stress disorder
RG	Reference Group
SC	Save the Children
SCD	Save the Children Denmark
SCI	Service Capacity Index
SDGs	Sustainable Development Goals
SGBV	Sexual and Gender-Based Violence
SGM	Sexual and gender minorities
SOSCHI	Standards for Official Statistics on Climate-Health Interactions
SPA	Strategic Partnership Agreement
SRHR	Sexual & Reproductive Health & Rights
STIs	Sexually transmitted infections
TB	Tuberculosis
TOR	Terms of Reference
UHC	Universal health coverage
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
V&A	Vulnerability and adaptation
WASH	Water, sanitation and hygiene
WCIS	Weather & Climate Information Service
WEI	Women's Empowerment Index
WHO	World Health Organization

EXECUTIVE SUMMARY

Climate change acts as a risk multiplier for mental health and psychosocial wellbeing, exacerbating existing MH conditions, triggering new instances of psychological distress and new MH and psychosocial conditions, and disrupting the systems in place to treat and care for people. Climate change is also an exacerbator of existing inequalities, and the impacts are highly gendered, meaning that for interventions to be impactful, targeted approaches must be equitable and account for the intersections with gender and other socio-cultural factors.

This desk review summarises the evidence base on the intersection of climate, mental health and psychosocial support (MHPSS) and gender in humanitarian contexts, highlighting gaps and entry points for effective action. It identifies unifying and divergent concepts and recommends actions to leverage strategic partnerships and proposes tools and indicators for monitoring progress in integrating these concepts into programming and policy.

As this analysis will demonstrate, the impacts are both direct and immediate, but also longer term and less obvious, resulting in an under-acknowledgement of the breadth and depth of the issue. This is compounded by a historical siloing of mental health within the broader global health sector, and as the climate and health nexus gains momentum and visibility, it is imperative that these complex and often hidden intersections are highlighted and given due consideration in policy and programming processes to ensure that mental health is included in the broader climate-health agenda going forward.

Gender plays a key role in modulating both exposure and vulnerability to climate hazards resulting in a broad array of longer-term direct impacts (i.e. impacts resulting from exposure to climate change hazards) spanning the individual, interpersonal, community and societal levels as well as indirect, subjective impacts that result from witnessing the destruction of climate change (as opposed to being directly exposed to the hazards). The intensity and relevance of these impacts vary across the key gender groups. For example, women during pregnancy face a unique blend of climate-related mental health risks compared to those faced by adolescent girls or sexual and gender minorities (SGM) individuals.

Although intersectionality is gaining prominence, programming at this intersection remains heavily siloed and programming gaps exist at all stages of the humanitarian programming cycle, ranging from issues with the lack of MHPSS prioritisation, to a lack of gender transformative implementation and standardised Monitoring & Evaluation (M&E) metrics. However, there are important synergies from collective climate action and whilst mental health-related co-benefits are still being evidenced, there is growing recognition of their worth.

A multi-sectoral, integrated response is required yet there is a long way to go on the integration front. This analysis draws out the key challenges and facilitators of integration, drawing on three case studies where integration has been successful – integration of MHPSS with HIV/AIDS programming, integration during the COVID-19 pandemic and integration under the One Health approach.

The challenges facing the current measurement of impact and progress across this intersection include issues around lack of data availability, study design, measurement metrics, data collection, dissemination of evidence and availability of resources. Key measurement frameworks across the relevant sectors have been presented with recommendations for next steps in developing new indicators that monitor progress across the intersection.

Finally, priorities for action across research, advocacy, policy development, funding and programming have been synthesised, and a summary of key potential entry points for engagement on this intersection with Danida is presented, highlighting the need for an intersectional approach both in programming as well as within organisations such as Save the Children (SC) that work across disciplines to tackle these problems.

HEADLINE FINDINGS

This analysis incorporates a wide-ranging scope of work which necessitates several distinct and detailed chapters. Therefore, a full set of headline findings are presented below to then allow the reader to navigate to the chapter of interest.

Key theoretical frameworks: the following theoretical frameworks are relevant to this intersection:

Global Development Frameworks: Sustainable Development Goals & The Human Rights Framework & UN Convention on the Rights of the Child

Ways of Thinking: Intersectionality, Systems Thinking, Causal Pathways Framework, Socio-Ecological Model, Life-course Approach

Technical Frameworks from MHPSS, climate and gender: The MHPSS Intervention Pyramid; Psychological First Aid Principles; The Nurturing Care Framework; World Health Organization (WHO) Model of Climate Change and Mental Health; The Empowerment Framework, The Gender Continuum for Climate Action; Gender, Climate Change, and Health Impacts; Pathways of impacts from extreme weather to mental health.

Key features of the intersection between MHPSS, climate change and gender equality

Key climate hazards: The evidence of human-induced climate change is undeniable, with significant alterations in weather patterns and climate across the globe. This phenomenon is manifesting through both extreme weather events - such as floods, storms, extreme heat and wildfires – as well as slow-onset changes such as drought, gradual temperature rise and sea-level rise.

The role of gender: both gender and biological sex-related factors influence exposure and vulnerability to risks from climate hazards. In thinking about gender, the following key population groups are key:

- **Women:** Despite an incomplete global evidence base, there is increasing literature showing that rigid gender norms and pre-existing inequities reduce women's agency and adaptive capacity to climate-related challenges. Women are also more susceptible to common mental health issues, with disproportionate impacts at particular periods over the life course.
- **Men:** Men also face significant but often less visible vulnerabilities driven by traditional gender roles and societal expectations centred on the concept of masculinity and risk-taking behaviour. This is compounded by a reluctance to show emotional or psychological vulnerability which can result in social isolation and a lack of support networks.
- **Sexual and gender minorities:** SGM individuals face increased mental health vulnerabilities due to pre-existing social, economic, and systemic marginalisation and stigma, which is further exacerbated by climate change and its impacts. The existing lack of inclusive support systems is even worse during climate events, leading to heightened risk, particularly if displaced. Discriminatory relief policies further hinder and drive these issues.
- **Girls and boys, including adolescents:** Children and adolescents, including girls, boys, and LGBTQI individuals, are especially vulnerable to the mental health impacts of climate change due to age-specific developmental challenges, gender-based inequalities, societal expectations, and their dependence on adults during crises – all of which are exacerbated by climate-related stressors such as displacement and resource scarcity. They will also have higher levels of exposure to hazards compared to older generations over their life course due to the increasing frequency and intensity of climate hazards.

***A note on definitions:** this report occasionally draws a distinction between direct and indirect impacts of climate change, with the principal differentiating factor being exposure to climate hazards (i.e. floods, storms, heatwaves): direct impacts occur as a result of exposure to climate hazards whereas indirect

impacts can occur without any exposure to climate hazards but arise as a knock-on effect of a direct climate impact.

It is important to note that with all these impacts (both direct and indirect), an individual can experience multiple overlapping exposures (i.e. be exposed to extreme heat and sea-level rise at the same time) as well as multiple overlapping impacts (i.e. concurrent food insecurity, SGBV and disruptions to education or health services) that can also have complex interactions with each other. This complexity is at the core of this intersection and must be central to any response.

Direct and indirect impacts: climate hazards result in an array of direct and indirect impacts that in turn result in adverse mental health outcomes. These impacts are presented by levels of the socio-ecological model as follows:

- **Individual:** loss of life and physical injury; heat stress impacts particularly for women during pregnancy, infants and the elderly; malnutrition particularly for women and girls; climate-sensitive vector-borne diseases for which gender roles influence exposure; WASH-related impacts for women and girls related to collecting water and needs during menstruation and pregnancy; sexual health impacts linked to sexual risk behaviour during climate disruptions; exacerbation of existing MH conditions, particularly in relation to post-natal maternal mental health and mental health of the elderly; and Increased awareness of climate impacts which can lead to climate anxiety¹, ecological grief² and solastalgia³ which are highly relevant to adolescents, and to adolescent girls in particular.
- **Interpersonal:** At the interpersonal level, climate change drives sexual and gender-based violence (SGBV); conflict over natural resources impacting both men, women and boys and girls in different ways; child protection issues including trafficking and child, early, and forced marriage and unions (CEFMU); as well as an increased burden for caregivers who are usually women and girls.
- **Community:** At the community level, impacts include increased climate mobility; loss of traditional culture and social connectedness; workplace vulnerabilities, particularly for women; and disruptions to education, particularly for girls. All of these impact men, women, girls, boys and SGM individuals differently.
- **Society:** At the societal level impacts include disruption to essential social services, importantly health, MHPSS and child protection services, as well as to the legal system and the rule of law; and an increased mental health burden on service providers and first responders.

The key features of this intersection are presented visually below. Please note this is a highly simplified representation of what is a complex intersection. Further explanation of the illustration is provided in Section 1.2.

¹ Climate anxiety relates to heightened emotional, mental or somatic distress in response to dangerous changes in the climate system (Climate Psychology Alliance, 2022). It can include anxiety, worry, stress, hopelessness, sleep disturbance, irritability, despair and bodily symptoms of anxiety (Lawrance et al., 2021).

² Ecological grief relates to the grief felt in relation to experienced or anticipated ecological loss due to climate change (Lawrance et al., 2021).

³ Solastalgia is a new concept developed to give greater meaning and clarity to environmentally induced distress. Solastalgia is the distress that is produced by environmental change impacting on people while they are directly connected to their home environment (Albrecht G et al., 2007)

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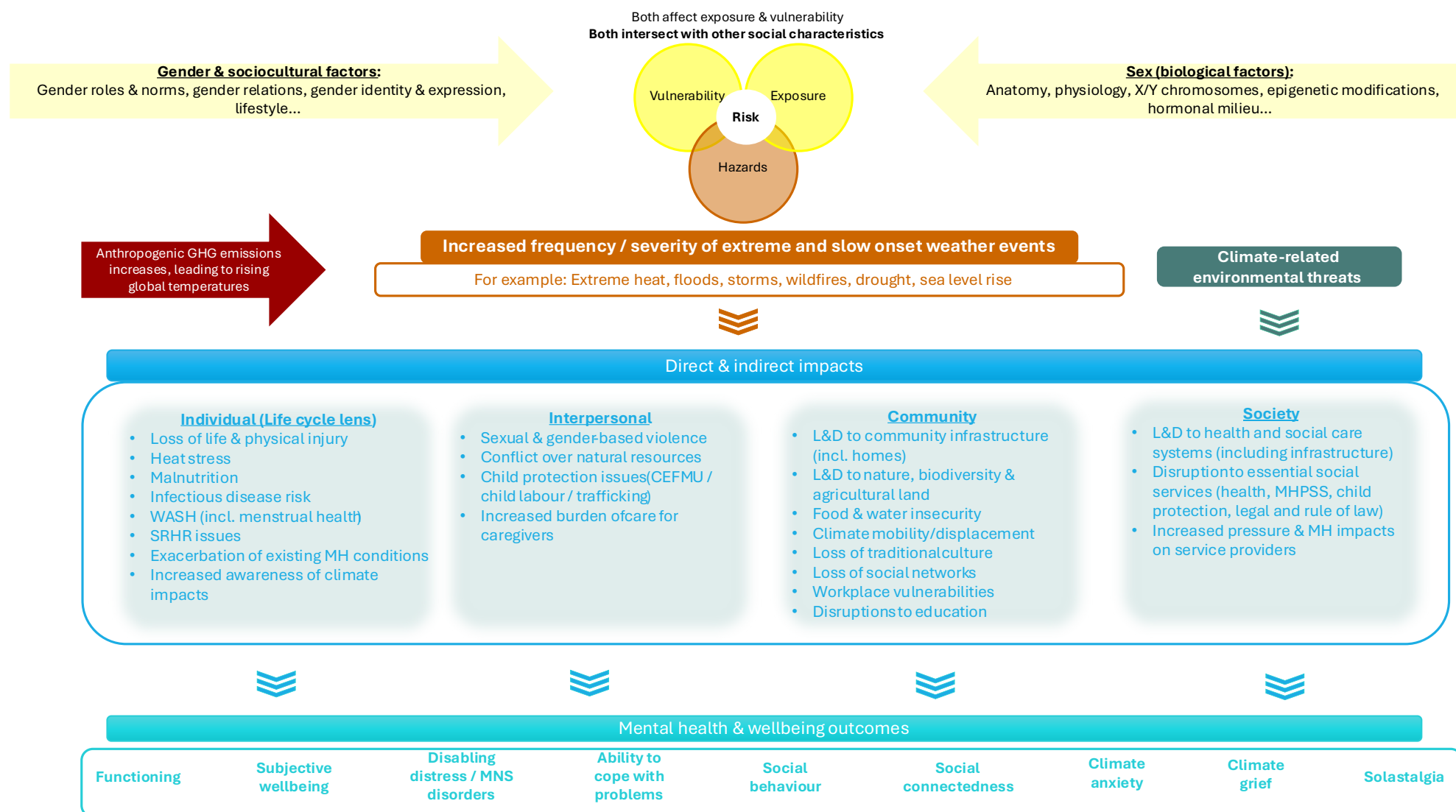


Figure 1: Climate change, gender and mental health and wellbeing impacts (adapted from figures developed by Van Daalen & colleagues (2024) and Lawrance & colleagues (2021) (see Section 1.2)

Global frameworks and current programming at the intersection

Key global programming frameworks/tools/approaches: The following frameworks are presented, with key areas of intersection highlighted:

- MHPSS: IASC Guidelines on MHPSS in Emergency Settings; MHPSS Minimum Service Package (MISP); UNICEF Global Multisectoral Operational Framework for MHPSS of Children, Adolescents and Caregivers Across Settings; and SC MHPSS Technical Guidance.
- Gender: Gender Transformative Programming; Save the Children Gender Equality Marker; Save the Children Gender and Power (GAP) Analysis Tool, IASC Guidelines on Integrating Gender-based Violence Interventions in Humanitarian Action.
- Climate: The Intergovernmental Panel on Climate Change (IPCC); UNFCCC & the Paris Agreement; the Conference of Parties (COP); Loss and Damage; The Alliance for Transformative Action on Climate and Health (ATACH) and the COP26 Health Commitments; Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs); and Health National Adaptation Plans (HNAPs).
- Disaster risk reduction (DRR): The Sendai Framework and Early Warning for All (EW4A).

Evidence-based interventions: a snapshot of emerging evidence-based interventions:

- Individual: Interventions that prevent and respond to individual level impacts. This would include the full spectrum of MHPSS interventions as well as interventions that address some of the more hidden impacts (such as anaemia in women), interventions that prevent and respond to climate anxiety (i.e. social prescribing and climate action), and interventions that bolster anticipatory capacity in individuals.
- Interpersonal: Interventions directed at supporting families and caregivers, both to manage their care of others with MHPSS issues, or with their own mental health and wellbeing issues that result; IPV / SGBV interventions.
- Communities: Economic interventions (i.e. insurance / income generation), social cohesion interventions and school-based interventions (i.e. natural cooling in classrooms, particularly for girls where social clothing norms increase heat stress). Additionally, participatory climate adaptation and anticipatory action planning at the community level.
- Societies: Training for health professionals and other community leaders; action planning to ensure agency amongst women and SGMs and to challenge harmful social norms; early warning systems (EWS); impact-based forecasting; and inclusion of mental health into integrated surveillance systems. In addition, advocacy-based interventions that push for increased mitigation by the world's top GHG emitters is key here.

Potential synergies: the mental health benefits of collective climate action are described:

- Individual: Potential for post-traumatic growth (PTG) and the role of climate action in reducing climate anxiety – realising its role in empowering women, girls, boys and SGM individuals.
- Interpersonal: Benefits of active and public transport.
- Communities: Benefits of green and blue spaces and other nature-based solutions (NBS).
- Societies: Benefits of social connection, the importance of recognising unifying themes and promoting innovation.

Gaps in programming:

- Overarching: There is an acute and unaddressed global mental health burden and a lack of prioritisation of mental health and wellbeing within the broader global health agenda. Additionally, programming approaches lack a focus on the less visible impacts of climate change, mental health impacts being among these.

- Needs assessment and analysis: Both the mental health and intersectionality are not routinely addressed in climate risk assessments, resulting in insufficient focus on the gendered mental health impacts of climate change. With the focus on women and girls, boys and adolescent boys could be forgotten so should be included in assessments.
- Response planning: Policy integration at the global and national levels is often lacking, with a very limited focus on mental health in climate frameworks more generally which leads to lack of inclusion of MHPSS in implementation. There is also no comprehensive framework for climate and mental health of children and adolescents.
- Advocacy and resource mobilisation: There are limited financial resources for mental health within the broader climate & health envelope (which in itself is insufficient) and the hidden economic impact of climate change on mental health further compounds this.
- Implementation: Gender transformative approaches are not routinely operationalised, there are considerable capacity gaps across all three technical areas, staff on the ground are often overloaded with limited capacity to integrate the latest technical guidance, there's a lack of innovative service delivery models and digital innovations are not used to their full potential.
- Monitoring, Evaluation, Accountability & Learning (MEAL): Due to the lack of understanding around this intersection, and the related lack of integration and intersectional collaboration, most organisations are not routinely collecting data on all three of these topics. Poor data quality and a lack of standardised metrics and tools further impedes MEAL and there is a lack of integrated surveillance and EWS that include mental health.

Integration of MHPSS, climate change and gender equality

Challenges to integration: Lack of MHPSS prioritisation and capacity within both the health and climate sectors; complexity of technical approaches and terminologies; structural barriers between organisations; proliferation of tools and guidance; lack of a shared language; short funding timescales; and challenges to demonstrating impact across all three areas that make an integrated approach harder to measure.

Facilitators of integration: Strong governmental stewardship; multi-sectoral coordination and partnerships; flexible funding and agile programming; task shifting and simplification of MHPSS interventions; decentralised decision making; community engagement; targeted advocacy; robust data; digital technology and online resources; and time to create trust-based relationships across disciplines.

Case studies to learn from: The integration of MHPSS within HIV/AIDS prevention, care and treatment; integration resulting from the COVID-19 pandemic; and integration through the One Health approach.

Recommendations for improved integration:

- Overarching: Foster a whole of society approach and roll out training and competency development; multi-sectoral coordination
- Needs assessment and analysis: Utilise baseline assessments as key tools for integration; map the status quo before starting.
- Prevention and response planning: Embed systems thinking; integration within national policies and action plans; create a bank of simplified, scalable climate-relevant and gender transformational MHPSS interventions that are suitable for integration; integration across the humanitarian programming cycle; co-develop context-specific resources with stakeholders on the ground.
- Advocacy and resource mobilisation: Target advocacy to funders; integrate cross-sectoral proposal development.
- Implementation: Facilitate understanding of the guidance at country level; build referral networks; task sharing; standardised protocols; support integrated care and resilience-building at the health facility level as well as at the individual level, for example through education or child protection interventions; utilise digital and telemedicine.

- MEAL: Increase integrated disease surveillance and EWS; integrate standardised indicators to multi-sectoral frameworks; create learning networks or communities of practice; emphasise do no harm principles in data collection.

Boundary terminologies: these are the words that sit at the intersection between a set of concepts that may or may not have a shared meaning. Identifying and exploring them facilitates a shared understanding of an intersection.

- Terminologies with a shared meaning: Adaptive capacity, agency, compassion, distress, empowerment, hope/hopelessness, intersectionality, justice, protection, vulnerability.
- Terminologies with different meanings: Anticipatory action, anxiety, climate change/climate crisis/climate emergency, Do No Harm, Loss, MHPSS, mitigation, recovery/repair/reconstruction, resilience, stress.

Measuring impact and progress

Analytical challenges of current measurement practices:

- Lack of data availability: Each of the three sectors has its own specific issues around data availability which contribute to the overarching lack of data available to link the three sectors together effectively. Specific sectoral issues on data availability include lack of high-resolution temporal and spatial data; limited gender disaggregation in data-sets, particularly for internally displaced people (IDPs); poor quality data on adolescents.
- Study design: Overlapping exposures that interact to produce adverse outcomes; lack of longitudinal studies; mismatched timeframes; limited studies purely focused on women; lack of longer-term intervention impact studies due to short programme timeframes and limitations on funding that limit the possibility of long-term follow up; over-reliance on heads of households; reverse causality; attribution is challenging to prove; lack of systems-thinking methodological approaches.
- Measurement metrics: Varying definitions and language complexities; lack of common metrics that allow for contextualisation; lack of metrics for the less quantifiable impacts of climate change; subjectivity of mental health experience; self-reported data; lack of gender sensitive tools lack of standardised weather-related metrics.
- Data collection: Challenging conditions; hidden populations; low levels of literacy; stigma skews responses; restrictions on free speech.
- Data sharing: Lack of data sharing and issues around confidentiality, especially for SGMs.
- Human and financial resources: Limited funding opportunities; capacity gaps; lack of diversity in researchers; psychological impact on researchers.

Key measurement frameworks: the following frameworks are relevant to this intersection:

- MHPSS: IASC MHPSS Common M&E Framework; UNICEF Measuring Mental Health Among Adolescents and Young People at the Population Level (MMAP); Multi-sectoral MHPSS assessment toolkit.
- Climate: Lancet Countdown on Health & Climate Change; WHO Guidance on Climate Change and Health Vulnerability & Adaptation Assessment; Standards for Official Statistics on Climate-Health Interactions (SOSCHI) Framework.
- Gender: WHO Guidance on Mainstreaming Gender in Health Adaptation to Climate Change Programmes; Save the Children GAP Analysis; The Save the Children Power Index; Twin Gender Indices (UNDP / UNWOMEN).
- DRR: The Sendai Framework.
- SC global indicators: key indicators have been identified that are relevant to the intersection.

Recommendations for development of new indicators: to measure impact and progress addressing issues at the intersection.

- Integration of cross-cutting indicators into national plans: The need to ensure standardised indicators are fed through consistently.
- Gender & intersectionality: Specific indicators around women as agents of change, gender dynamics of IDPs and pathways to social norms change.
- MHPSS-related: Disaggregation by gender, indicators around referrals from multi-sectoral programmes, indicators on MHPSS approaches used by other sectors.
- Climate-related indicators: Indicators tracking progress to COP26 health commitments but with a gender transformative lens; indicators tracking the mental health related non-economic losses and damages (NELDs) such as erosion of cultural heritage and loss of biodiversity.
- Community / health: Time women and girls spend collecting water and firewood; indicators monitoring anaemia in women and girls; family composition over time.
- DRR: Access to EWS by gender; engagement in disaster preparedness planning by gender.
- MEAL: Existence of online data banks and integrated surveillance systems including mental health.
- Financing: Indicators measuring funding flows to the intersection; intra-organisational programme financing targeting the intersection.

Opportunities for action

Further research: There were many gaps in the evidence base identified however the key areas requiring further research include: gender and climate-related vulnerability and adaptive capacity, and the interplay between gender and sex; gendered mental health impacts of climate change through the life-course; redressing the geographical skew of the evidence base specifically for climate anxiety; climate anxiety; the mental health co-benefits of climate action; the impact of slow onset climate change; the costs of mental health impacts of climate change; and the need for methodological advancement including standardised methodologies for measuring and addressing mental health impacts.

Advocacy: Key advocacy messages: The mental health argument for climate action; spotlighting gender transformational approaches; women and girls as agents of change; and the co-benefits of climate action. Key entry points: these include Loss and Damage and the Santiago Network; upcoming NDC revisions; ongoing NAP and HNAP processes; global adaptation indicators; COP30 in Brazil in November 2025; Sendai Framework revisions in 2030; the 2026 Nordic Conference on MHPSS; leveraging global climate and health alliances; advocacy with MHPSS professional associations; the upcoming Danish SPA strategy; round table meetings with Danish politicians; leveraging high level connections withing SCI and the UN; and internal advocacy within SC.

Policy development: Priority policy actions include actions around voice, representation and meaningful participation of women, girls and boys and SGM populations as well as those with lived experience of climate related mental health impacts; the importance of systems thinking; connecting across silos; political prioritisation and willingness to change; cost-informed policy making that includes innovative financing mechanisms for immediate disaster response; and building key leadership skillsets that support action on the intersection.

Funding: Key funding asks include requesting increased donor flexibility for emerging needs and local actors; cross-sectoral financing models, including transdisciplinary engagement between funders and ensuring gender is integrated across all sectoral funding; ensuring inclusive meaningful engagement; and a request for earmarked climate financing for MHPSS and humanitarian contexts.

Programming: Across the programming cycle, key opportunities include needs assessment: pre-engagement workshops to unpack the intersection; contextualisation of analysis tools; and systems thinking. Response planning: integrated planning using systems thinking ensuring gender transformative approaches; implementation: clear referral networks and reporting on referrals; task shifting; leveraging digital and online innovations. MEAL: standardised, gender transformational

targets, indicators and metrics; reporting on intersectionality; establishing/engaging existing communities of practice.

Integration into Danida's next Strategic Partnership Agreement (SPA): Likely technical focal areas include climate change, migration with a focus on climate mobility, NBS with a focus on forests and nature; climate impacts on sexual and reproductive health and rights (SRHR) and on education; and the humanitarian-development-peace-nexus. Specific areas where this analysis can feed into these areas are highlighted. Approaches that highlight intersectionality, localisation, grassroots civil society engagement and the co-benefits to climate action are recommended.

Key programming recommendations

The diagram below provides an overview of the key programming areas relevant to the intersection between MHPSS, climate and gender equality. Examples of specific interventions are provided in Section 2.2 and recommendations on programming approaches are provided in the table below. Colour-coding explained in the Introduction is used in these tables to facilitate navigation by sector.

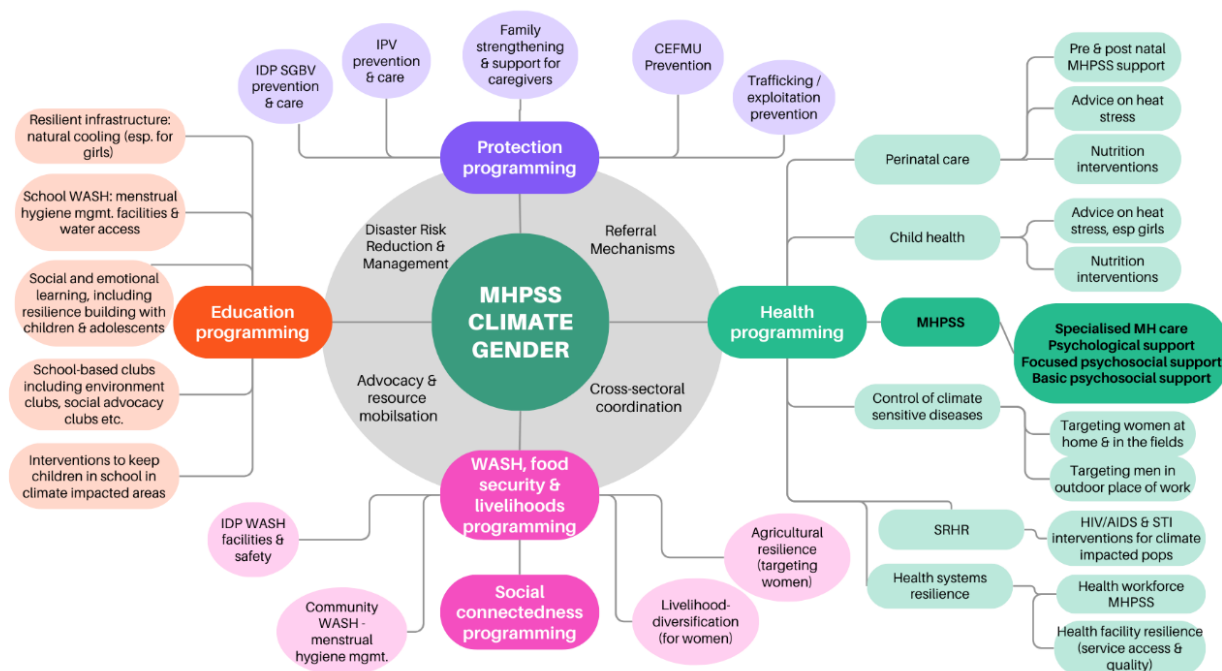


Figure 2: Key Programme Areas - for integrated action

Overarching programming recommendations	
Multi-sectoral coordination	Coordination mechanisms need to reflect the multi-sectoral nature of the intersection, ensuring broad representation and meaningful engagement of affected populations. Coordination mechanisms require focal points from each of the sectors (MHPSS, climate, gender equality) to ensure effective communication and action.
Strategic partnerships	Partnerships are key to engaging across the intersection, particularly in terms of engaging community level actors (i.e. women-led grass roots groups or youth action groups). Inclusive partnering is key from the concept design stage and particularly for facilitating multi-sectoral working between smaller organisations. Time is a key facilitator of durable partnerships, so existing collaborations should be built out.

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Meaningful participation	Those with lived experience of climate change impacts on mental health and wellbeing, particularly women, girls and SGM individuals, should be engaged in programme planning, implementation and M&E.
Foster a shared language	Findings from this report can feed into a more nuanced understanding of boundary terminologies and a shared language to drive programming forwards in alignment.
Key technical programming approaches	Integration at the point of care – for example, offering referrals and interventions around SGBV/IPV through nutrition interventions. Preventative approaches need to be given as much priority as treatment Positioning those impacted climate change as agents of change, particularly women, girls and SGM individuals Focusing on families from a holistic perspective, ensuring the wellbeing of carers Providing key life skills for vulnerable populations and that focus on strengthening individual level resilience and adaptive capacity. Fostering post-traumatic growth through capturing experiences of positive change that occur as a result of traumatic stressful life events. Utilising safe spaces as non-judgmental places for climate-impacted individuals, ensuring inclusive sessions for specific gender groups and using the space for climate action. Ensuring that interventions targeting individuals displaced by climate change who are still on the move consider the potential inability to offer follow-up care. Taking opportunities to foster community connection through climate action as well as interventions that increase adaptive capacities of communities Caring for responders during and after climate events, addressing their mental health needs. For female responders, ensure they have appropriate support networks for any dependents during times of crisis when they are required to work longer hours.
Agile programming	Programming at this intersection needs to be as flexible as possible to enable implementation that is responsive to the changing needs of those most at risk, particularly women, girls and SGM individuals. Key to this is decentralised decision-making.
Dissemination of programming best practice	Case studies of integrated MHPSS, gender and climate programming should be profiled and disseminated at high level events such as the upcoming COP30 in Brazil in 2025 and the next Nordic Conference on MHPSS in Fragile and Humanitarian Settings in 2026.
Targeted technical guidance	Guidance on programming at this intersection needs to be provided in a targeted and considered way to avoid further overwhelm at the country/implementation level. This could take the form of an in-person workshop to present an overview of the intersection and then explore how this might look in the context in question.
Training and capacity building	Targeted training on the key features of the intersection and recommended approaches. This can be on-the-job capacity building/mentorship as well as updates to curricular for pre-service qualifications. This is required across sectors and disciplines, including mental health professionals, other health professionals, climate sector actors, gender equality specialists, community figures (i.e. teachers, religious leaders), emergency response personnel, government employees and relevant private sector providers.
Referral networks	Ensure clear gender-specific referral pathways are mapped out and known by all programme staff. This is relevant for climate programming (to know of MHPSS referral networks) as well as MHPSS programming (to know of other support available to those impacted by climate change).
MHPSS-specific programming recommendations	

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

More nuanced MHPSS technical guidance	Within MHPSS programming there is a need for a more nuanced understanding of the gendered climate impacts on mental health and wellbeing, encompassing both slow onset and extreme events and where the evidence base exists, acknowledging subjective impacts such as climate anxiety. A potential starting point could be for SC to draft an addendum or worked case study linked to the SC MHPSS Technical Guidance document that draws on the findings of this report. This could specifically highlight examples of relevant gender transformative actions.
Intersectionality within needs assessments	MHPSS needs assessments and related analyses as well as programme baselines, mid-term reviews and programme endline assessments should be designed with an intersectional lens, through exploring and highlighting existing forms of inequality and power structures specific to the local context. Systems thinking can support this.
M&E tracking the hidden MHPSS impacts	The hidden economic impact of climate change on mental health for specific population groups (i.e. women, girls, SGM individuals) needs to be better documented through programme M&E (and research). These need to be highlighted in programme reporting and fed up to policymakers.
Innovative MHPSS service delivery models	Scalable community-level solutions like digital innovations, peer support programmes and task shifting initiatives are needed to overcome the shortage of climate aware mental health professionals.
Simplified MHPSS models	For interventions to be scalable and implemented by actors outside of the MHPSS sector, they need to be simple and easy to understand.
Climate-specific programming recommendations	
National-level engagement in NDC and NAP processes include MHPSS	In-country SC teams should take steps to engage with national level climate processes to ensure better MHPSS and gender representation in NDC and NAP processes, particularly within institutional arrangements to ensure implementation reflects policy and plans. Where possible, this should ensure good gender representation and should amplify voices of those impacted the most and those involved in programming on the ground.
Gender-specific programming recommendations	
Profile gender transformative approaches relevant to the intersection	There is a need to better illustrate examples of activities or broader programming approaches that are truly gender transformational. As the SC GEM and the SC GAP Analysis tool are both intended to be used across programme areas, there could be potential to produce worked examples of them being used on an integrated MHPSS/climate intervention.
Gender-inclusive communication	Programme communication designed to reach women, girls and SGM individuals in particular and to ensure accessibility in terms of language and digital literacy as well as access to information sources.

M&E recommendations

Recommendations for updating existing M&E frameworks and recommendations to guide further development and integration of new indicators focused on the intersection are provided below. More specific examples of relevant indicators are listed in Section 4.3.

Overarching	
Integration within cross-sectoral M&E frameworks	Standardised indicators and targets should be included into programme and cross-sectoral M&E frameworks. An example could be gender-disaggregated indicators measuring MHPSS referrals from a climate adaptation programme. At the national level, there should be better inclusion of gender sensitive mental health indicators in HNAPs and NAPs and gender sensitive indicators on climate within broader health sector plans.

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

Integration within SC M&E	Explore the potential to develop a specific SC Global Indicator on this intersection. In the interim, using the indicators identified in Section 4.2 together in reporting would be a step toward understanding what is happening at this intersection, and this wouldn't require any new development or modification of what exists.
Contextualise measurement indices/tools	Ensure staff are facilitated to understand the core concepts before the process of contextualisation of measurement indices/tools. This does take time and requires groundwork and commitment from staff to make it work. Learning from recent efforts of SCD to test various MHPSS tools in Niger and Mali can inform this process.
Integrated Disease Surveillance	Establish systems that integrate gender disaggregated mental health outcomes with climate/weather information to analyse seasonal trends for better programming and resource allocation ahead of peak demand periods.
Simple MoVs for indicators	Data collection requirements for indicators integrated into multi-sectoral frameworks should be simple and easy to follow with terminology that people who are not subject matter experts can understand.
Make use of existing pre-validated tools	Rather than reinventing the wheel, we should be exploring how to tweak existing tools to include consideration of issues relevant to this intersection, especially because the validation process takes time and effort
Indicators that quantify the mental health related NELDs	Indicators that aim to quantify non-economic L&D for different gender groups such as mental health issues arising from climate-induced stress and displacement, erosion of cultural heritage, the loss of biodiversity, and the disruption of social cohesion and community networks. Exploring the C-CIQ method of quantifying is a potential starting point.
Track financing at the intersection	Tracking of financing metrics relevant to the intersection will help to highlight progress around integration. These could be around funding for integrated research or funding for integrated programming.
MHPSS M&E	
Common MHPSS metrics that allow contextualisation	There is a need for more common metrics for mental health that are applicable across this intersection and that allow for contextualisation but also facilitate comparability across contexts. Frameworks such as the IASC Common M&E Framework for MHPSS (see section 4.2 below) should be more widely used to bring in standardisation that can be made context specific.
Referrals to MHPSS services	Referrals from climate or gender programming to MHPSS services should be reported and analysed to identify gaps where programme areas are not yet referring patients.
IASC MHPSS Common M&E Framework	If future revisions of this framework take place, then integration of additional guidance, indicators and MoVs specific to climate disasters would be ideal, bearing in mind the broad scope of the guidelines. In the interim, a process of validating the various MoVs for use in the context of climate change and identify modifications for specific gender groups would be useful.
Climate change M&E	
Add pre- and post-intervention surveys	This wouldn't need to be complicated and could be as simple as adding a small selection of questions into existing baseline, mid and end surveys, or potentially a standalone survey, as a way of determining impact of non-MHPSS interventions on MH and wellbeing. Drawing on existing thinking in the IASC M&E framework is a good starting point.
Updates to climate V&A assessment frameworks	These frameworks already integrate the gender lens comprehensively and have the potential to also capture mental health and wellbeing issues. This would require a more detailed review and integration of specific questions for capturing the MHPSS related data. There may be potential to explore the use of questions or tools outlined as MoV in the IASC Common M&E Framework.
Updates to the WHO guidance on	Work with WHO to revise this guidance document to include more of a focus on MHPSS and the related impacts. Timescales for this may be a challenge though as it was recently updated. An

health V&A assessments	alternative could be to produce a worked example with integration of specific questions around MHPSS.
Gender & intersectionality M&E	
Gender disaggregation	Where possible, all indicators should be disaggregated by gender and age. This includes for instance, MHPSS service access indicators to ensure climate events are not worsening existing gender-related barriers to access and IDP data which is an existing gap.
Ensure data collection tools are gender sensitive	Across all disciplines there is a need to ensure existing and new data collection tools are gender sensitive as this is required alongside gender disaggregation. Examples of steps to ensure gender sensitivity include using gender neutral language, providing diverse response options and ensuring tools are accessible to varying literacy levels.
Include non-heads of household	Redress the imbalance to ensure the perspectives of women within male-headed households are reflected in indicators tracked by household surveys.
Indicators that explore power dynamics	Indicators that monitor increases or decreases in women, girls and SGM individuals as agents of change and as decision makers should be included in M&E frameworks. Likewise for indicators that track gender norms and pathways towards gender equality.
WHO Guidance on Mainstreaming Gender in Health Adaptation	This 2012 document could be due an update which would provide a potential opportunity for advocacy to include specific measurement tools/metrics related to the gendered impacts of climate change on mental health and wellbeing.
SC Gap Analysis & SC Power Index	As both of these SC tools are intended to be used across the SC programme areas, there is potential to trial their use on programming at the intersection between MHPSS, climate and gender. For the Power Index in particular, there have been other thematic modifications for education and health so it is worth exploring if a tailored MoV for the MHPSS/climate intersection could be developed.



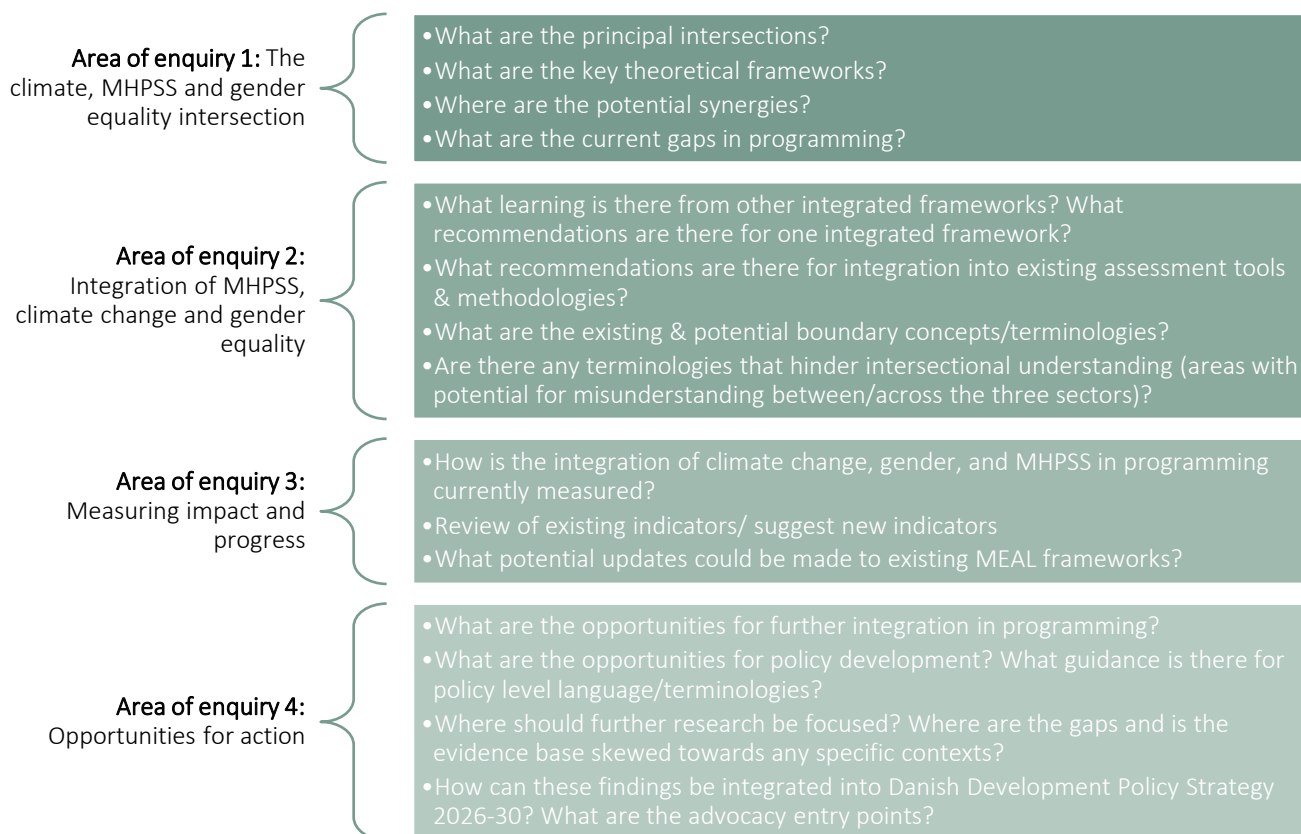
Figure 3: A climate emotions wheel from a Guide to Climate Emotions (Panu Pihkala and Anya Kamenetz, 2024)

INTRODUCTION

Overview of the assignment

This desk review seeks to summarise the existing evidence base around the intersection of climate, mental health and psychosocial wellbeing, and gender equality, highlighting gaps and identifying entry points for effective action. The analysis will assist Save the Children Denmark (SCD) and the MHPSS Collaborative in laying the groundwork for developing common indicators, harmonising terminologies, integrating tools and methodologies, and guiding the improved integration of these elements into current and future programming and policy initiatives.

The pre-agreed set of research questions driving the structure of the review were as follows:



Brief methodological approach

The desk review synthesises findings from two key sources – a broad literature review and a select number of stakeholder consultations.

Literature Review: this draws on published academic papers, grey literature, strategy and programming documents from donors, humanitarian and development partners and other civil society actors. Annex 1 provides the full Bibliography.

Stakeholder Interviews: Engagement with key stakeholders will complement and further inform the literature review. This involved internal stakeholders from the MHPSS Collaborative and SCD as well as external stakeholders working on the intersection of climate, MHPSS and gender equality.

Over 20 key stakeholders were engaged through semi-structured interviews. Interviews were recorded where possible and responses compiled and synthesised alongside the findings from the literature review. Permission was sought for this at the start of the conversation and recording was done according to their response. Questions were tailored to the respondent's area of expertise to save on time and to ensure the process was as streamlined as possible.

Structure of this document

This document is structured around 5 key sections as follows:

Chapter 1: provides a detailed literature review of the intersection between MHPSS, climate change and gender equality. It outlines the key theoretical frameworks, provides a visualisation of the intersection and then describes the role of gender, the key climate hazards and longer-term direct and indirect impacts.

Chapter 2: provides an overview of the programming context relevant to this intersection, including an overview of the key programming frameworks, a snapshot of evidence-based interventions, and a summary of key synergies and programming gaps.

Chapter 3: provides an overview of the status quo in terms of integration, detailing key barriers and facilitators of integration, presenting case studies of good integration and recommendations for improved integration. Boundary terminologies are also listed.

Chapter 4: provides an overview of current practices in measurement of impact and progress, detailing the analytical challenges, the key frameworks and recommendations to inform future development of indicators to measure the intersection.

Chapter 5: provides a summary of key opportunities for action covering further research opportunities, advocacy framing and entry points, policy development opportunities, key funding asks and programming recommendations. It also provides a summary of recommendations for future Danida engagement relevant to the intersection.

Annexes to this document include Annex 1 which provides definitions to key terminologies used throughout the document; Annex 2 which is the full bibliography; Annex 3 which lists the key contributors to the report who were engaged as Key Informants; and Annex 4 which provides a breakdown of the key stakeholders of relevance to the MHPSS / climate change / gender equality intersection, outlining their key roles and responsibilities in driving forwards integrated approaches.

Colour coding is used throughout this document to facilitate the reader in navigating the sections and across sectors:

Colour code	Sector
	Overarching/cross-cutting
	MHPSS
	Climate change
	Gender equality
	Disaster risk reduction

1. LITERATURE REVIEW: DESCRIBING THE INTERSECTION

The basics: We now have unequivocal evidence that human-induced climate change is already causing changes to climate and weather patterns across the world (IPCC, 2023). These extreme weather events (such as storms, floods and wildfires) and slow-onset changes (such as drought) are causing losses and damages to nature, human health and security, economies and society.

There is very high confidence that rising global temperatures have adversely affected physical and mental health, and are contributing to humanitarian crises (IPCC, 2022) with internal displacement from climate change increasing by 45 per cent in a single year (UN OCHA, 2024). Experiencing climate events first hand can be psychologically distressing and traumatic, and can lead to increased rates of suicide, post-traumatic stress disorder (PTSD), depression and disabling distress (Lawrance et al., 2021). Mental health impacts include new cases of mental illness as well as worsened symptoms for those with pre-existing mental health conditions, with women being three times more likely than men to experience common mental health problems (Mental Health Foundation, n.d.).

The impacts to mental health and wellbeing can also arise over the longer term, mediated by disruptions to social, economic and natural systems (Pearce & Watkins, 2024). New terms have emerged to describe the impacts of climate change to mental health arising from increased awareness of the climate crisis or through witnessing climate events second hand through the media or from known contacts. These impacts include climate anxiety, eco-distress and solastalgia (Massazza, 2023). This has been observed to particularly affect young people⁴.

Both gender and sex-related factors are important modifiers of vulnerability and exposure to climate hazards, ultimately impacting on an individual's risk of climate-driven mental health and wellbeing (van Daalen et al., 2024). When the intersections with other social characteristics (such as age, race, ethnicity, religion, socio-economic status) are factored in, one can appreciate the uniqueness of each person's experience of climate change.

Extreme weather events disrupt the provision of health services which further exacerbates existing mental health conditions requiring intervention/treatment and introduces additional barriers to new patients requiring MHPSS services in post-disaster situations (Corvalan et al., 2022). This also places an additional care burden onto already overburdened families. Social protection services can also be disrupted, leaving windows of opportunity for exploitation and abuse of key vulnerable populations.

Those bearing the disproportionate burden of the climate crisis are those who have contributed least to global GHG emissions. This inequity is partly due to the geographic and socio-economic nature of their exposure, partly due to a lack of resources for effective adaptation, and partly due to the fact that these populations already have a higher burden of morbidity from other health stressors (Ha, 2024).

The increased frequency of climate events means there are shorter recovery periods between them, impacting the ability of individuals, communities and social support systems to fully recover and build long-term resilience, and putting increased pressure on humanitarians to effectively respond – all limiting psychological recovery time (Connecting Climate Minds, 2024b).

The intersection of MHPSS, climate and gender is explained through the following sections of this chapter:

- Section 1.1 presents an overview of the key theoretical frameworks
- Section 1.2 provides a note on the framework developed for this report that visualises the intersection.

⁴ Throughout this report, the focus on young people relates specifically to children and adolescents up to and including age 19 years. This aligns with the UN definition of adolescent.

- Section 1.3 gives a brief overview of the key hazards of note and how these impact in gendered ways on mental health and wellbeing outcomes
- Section 1.4 explains the role of gender and lays out the key populations of interest to this analysis
- Section 1.5 provides an overview of the direct and indirect impacts of climate change on mental health and wellbeing, drawing out the key gendered characteristics of these impacts. This section is structured according to the levels of socio-ecological model spanning impacts at the individual, interpersonal, community and societal levels.
- Two case studies are provided at the end of the chapter to illustrate how some of the impacts play out in reality.

1.1.Key Theoretical Frameworks

Global development frameworks

Sustainable Development Goals

The Sustainable Development Goals (SDGs) interconnect climate change, mental health, and gender by emphasizing the need for resilient communities that mitigate environmental impacts, support mental well-being, and promote gender equality for a sustainable future, specifically focusing on SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), and SDG 13 (Climate Action).

The Human Rights Framework & UN Convention on the Rights of the Child

The Human Rights framework and the UN Convention on the Rights of the Child provide a critical rights-based approach through which this analysis should be viewed. It mandates that children have the right to a standard of living adequate for their physical, mental, spiritual, moral, and social development. By upholding these rights, States are obliged to take proactive measures to mitigate climate change and protect the mental health of children, ensuring their well-being.

Ways of Thinking

Intersectionality

This analytical framework is underpinned by feminist theory around how power structures emerge and interact (Kaijser & Kronsell, 2014). It helps us unpick and understand how individuals and groups are simultaneously impacted by multiple systems of oppression and overlapping forms of discrimination (Bywater et al., 2021). This lens helps us identify those who experience the most inequality and can support transformative programming.

Systems Thinking

Systems thinking is a set of analytic skills used to help describe a complex set of interacting factors, to predict their behaviour and to formulate interventions to achieve desired results whilst avoiding unintended consequences (Berry et al., 2018). It is particularly useful when conceptualising non-linear, overlapping relationships such as gender, climate and mental wellbeing. A systems-based approach can improve the understanding of important synergies and co-benefits, feedback loops, trade-offs and unanticipated consequences that are critical to priority-setting and effective responses (Kivioja et al., 2023).

Causal Pathways Framework

A causal pathways perspective focuses on understanding how, why, and under what conditions change happens so as to articulate the causal chains that can lead to particular outcomes and impacts. This

allows us to identify the different pathways through which climate change is impacting on mental health, drawing out both direct and indirect impacts (Berry et al., 2010).

This kind of framework can be helpful to simplify complex relationships to facilitate easier engagement of stakeholders from policy and programming practice areas. This contrasts to systems thinking, which looks at the system as a whole, highlighting complexity of feedback loops whereas causal pathways thinking provides a simplified view that focuses on causes and effects.

The Socio-Ecological Model

This framework was developed to understand the various layers of factors that influence an individual. Within the context of SC, it is used to understand the importance of networks of people and structures that surround a child or adolescent, safeguarding their well-being and sense of agency, and supporting their optimal development (UNICEF, 2022a).

Life-course Approach

This approach is relevant to all three areas in question – MHPSS, climate change and gender. Within MHPSS the life-course approach highlights unique challenges and needs at different life stages and the role of childhood adversity in adult outcomes (Betancourt et al., 2020); within climate change it defines exposure to climate extremes at each life course stage resulting in a cumulative effect of climate exposures over a life course, and changes in the effects of exposures across birth cohorts as climate change-related exposures become more frequent and intense than in the past (Burrows & Fussell, 2022); and within gender it highlights how gendered socialisation occurs differently throughout the life-course for each gender. It considers the impacts of climate change on future parents, offspring, and the next generation and it recognises that effects are likely to be more pronounced when exposures occur during specific developmentally sensitive periods (Ha, 2024). It considers the impact of exposure to specific climate hazards during the pre-conception period, the pregnancy period and importantly during the perinatal period. The cyclical nature of this model emphasises how repeating cycles of vulnerability can perpetuate across generations (Ha, 2024). Sandie Ha talks about critical windows of susceptibility during there are developmentally plastic periods in which exposures have more profound impacts, but also during which there are opportunities for intervention. The most critical of these is pregnancy and early childhood. This also relates to men, as male sperm integrity is also impacted by extreme heat (Rothschild & Haase, 2023).

Technical Frameworks from MHPSS, climate and gender

The MHPSS Intervention Pyramid

IASC's MHPSS intervention pyramid (2007) categorises support for MHPSS into four complementary layers. It is designed for MHPSS in emergencies, outlines a layered continuum of care approach, starting with basic services and security, advancing to community and family supports, and culminating in specialized care for individuals with severe mental health needs. The pyramidal shape demonstrates the typical proportion of people who will require certain support in a given context (Save the Children International, 2023). These layers are intended to build on each other - if people receive adequate support at the bottom layers, they may not need additional, more intensive support later.

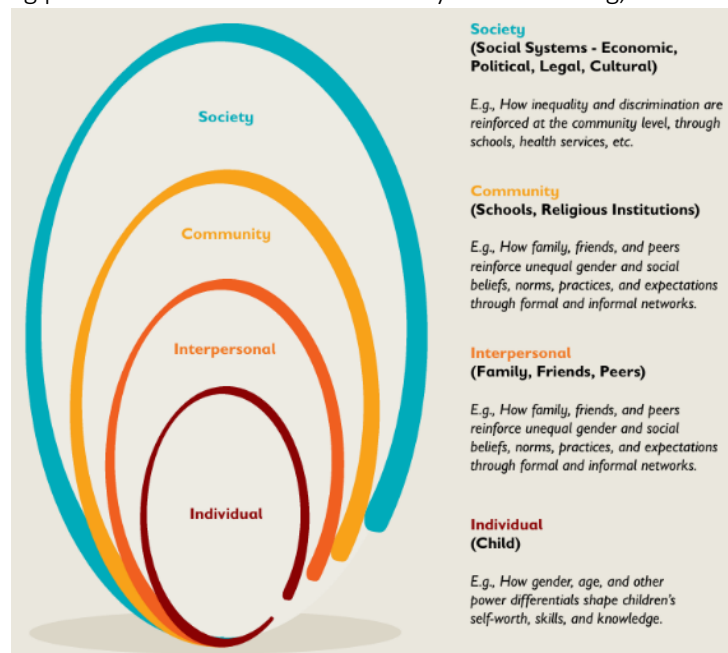


Figure 4: Child-centred Social Ecological Model (Bywater et al., 2021)

Psychological First Aid (PFA) Principles

In 2007, Hobfoll proposed five key principles to be implemented for MHPSS in post-disaster contexts. These are: 1) establishing and promoting a sense of safety; 2) calming; 3) connectedness; 4) a sense of self and community efficacy; 5) hope/optimism. These principles have been widely used since then and a recent systematic review found that overall, the approach has been effective with most evaluations of the method reporting reduced symptoms of anxiety, depression, posttraumatic stress, and distress, as well as improved ratings of mood, the experience of safety, connectedness, and a sense of control, among youth and adults (Hermosilla et al., 2023).

The Nurturing Care Framework

The Nurturing Care (NC) Framework is a multilayered concept, promoting human development from preconception to early childhood through stable environments that support health and nutrition, provide protection from threats, and ensure opportunities for learning and relationships that are emotionally supportive and responsive (Black et al., 2021). The NC Framework has also been applied by Lynne Jones in a webinar⁵ for the MHPSS Collaborative where she used the framework to illustrate climate impacts on children's mental health. Taken together, these two applications provide an illustration of how NC can account for climate-related mental health stressors across the life-course.

WHO Model of Climate Change and Mental Health

WHO's framework, published in the 2022 Policy Brief on Climate Change and Mental Health illustrates the direct and indirect pathways by which climate-related hazards, long-term risks, exposure pathways and vulnerabilities interrelate to impact mental health. The policy brief, based on a paper written by Corvalan and colleagues in 2022, emphasises the overlapping nature of the exposure pathways: "People may be exposed simultaneously to contaminated water and food insecurity while also being exposed to mosquito breeding sites"

(Corvalan et al., 2022). Importantly, this framework explicitly mentions other environmental hazards that are relevant to climate change (such as air pollution, water quality and biodiversity). This

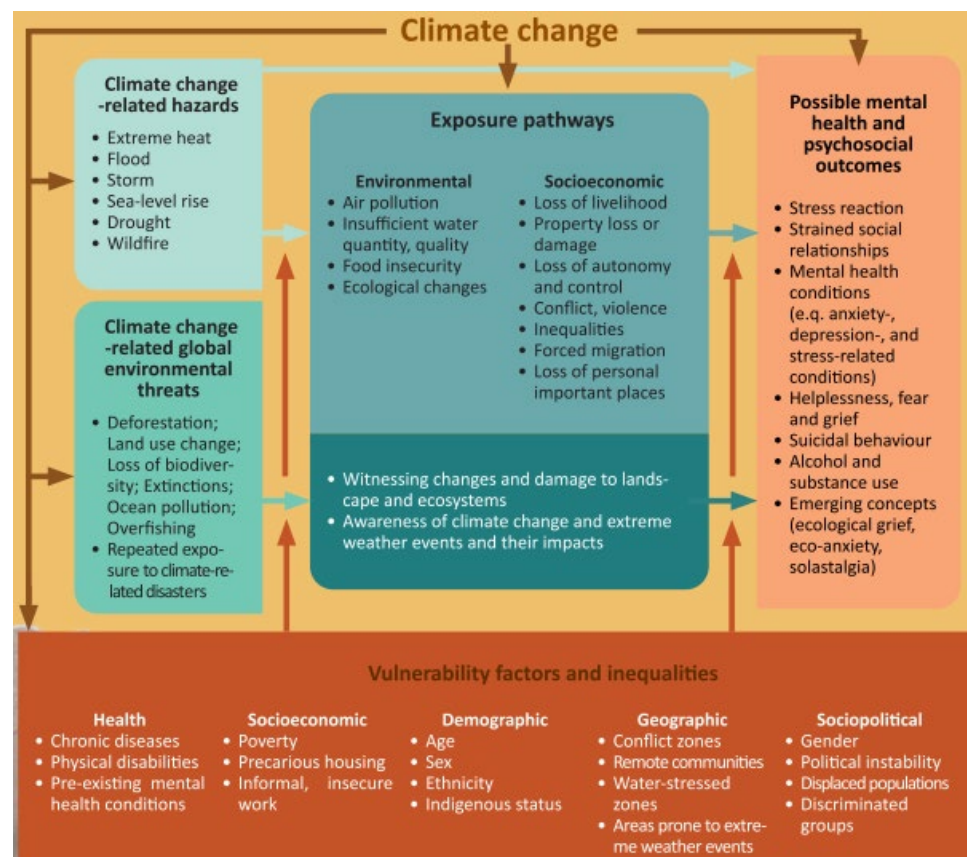


Figure 5: Main interlinkages between climate change and mental health (WHO, 2022)

⁵ [Webinar-4-Climate-and-Eco-Crises Slidedeck-2 compressed-1.pdf](#)

framework is widely believed to be useful, however it is complex, mirroring the reality of the intersection, which can make it hard to operationalise.

Save the Children's Empowerment Framework

The Empowerment Framework was developed by SC to examine, understand, and address discrimination and inequality that prevent children, their families, and communities from claiming their full and equal rights. It draws on key feminist theories of power, like intersectionality, to draw attention to the numerous power hierarchies and interconnected systems of oppression that cause inequality (Bywater et al., 2021). This focus on the root causes of inequality, rather than only the symptoms, supports us to design and deliver transformative programming.

The forms of power included in the framework are:

- 1) Power within, or internal power: the knowledge, individual capabilities, sense of entitlement, self-esteem, and self-belief needed to act.
- 2) Power to or decision-making power: the power to make choices.
- 3) Power over or bargaining power: the power to take control over self and others. This type of power relies on force, coercion, domination and control.
- 4) Power with or collective power: the shared power that grows out of collaboration and relationships with others.

The framework illustrates how we need to nurture numbers 1,2 and 4 above and try to avoid operating from a position of power over (number 3 above) (Bywater et al., 2021).

The Gender Continuum for Climate Action

This framework emphasises inclusive, equitable approaches that empower all genders to contribute to and benefit from climate resilience and sustainability initiatives. The continuum provides a direction of travel from gender discriminatory to gender blind, to gender sensitive, to gender responsive, ending in gender transformative. Specific strategies related to the climate/gender intersection are listed that seek to build development outcomes based on equality among women, men, girls, boys and gender-diverse individuals (Clements, 2024) (UNICEF, 2022c). The gender continuum is also the basis upon which the SC Gender Equality Marker was created. This tool is profiled under Section 2.1.

Van Daalen's Gender, Climate Change, and Health Impacts

Van Daalen and colleagues published a paper in the Lancet Planetary Health journal ahead of COP29 in Baku, Azerbaijan. This paper explores the climate, gender, health nexus, with a focus on the insufficient meaningful inclusion of gender, health, and their intersection in international climate governance (van Daalen et al., 2024). The framework presented in the paper provides a helpful illustration of the broader intersection under which this analysis sits. Of particular note is the depiction of how gender interacts with biological factors to affect vulnerability and exposure to climate hazards.

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

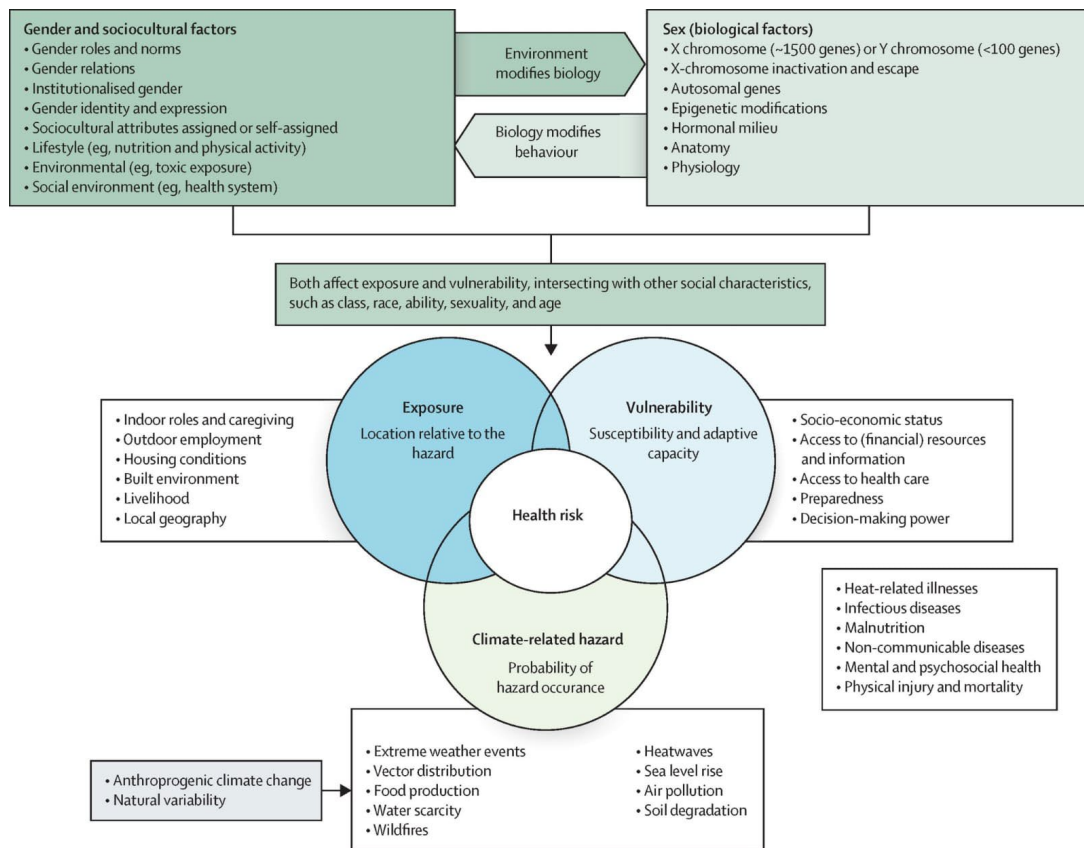


Figure 6: Gender, Climate Change and Health Impacts (van Daalen et al., 2024)

Pathways of impacts from extreme weather to mental health

Lawrance and colleagues created this illustrative framework to show the pathways by which extreme weather events impact mental health (Lawrance et al., 2021). Whilst this diagram is a simplification of the complex relationships at play and it doesn't consider the intersectional considerations that are drawn out in this document, it is helpful in illustrating the direct and indirect causal pathways and impacts. It must be viewed with the caveat that the mental health impacts of climate change must ultimately be assessed by thinking about entire systems.

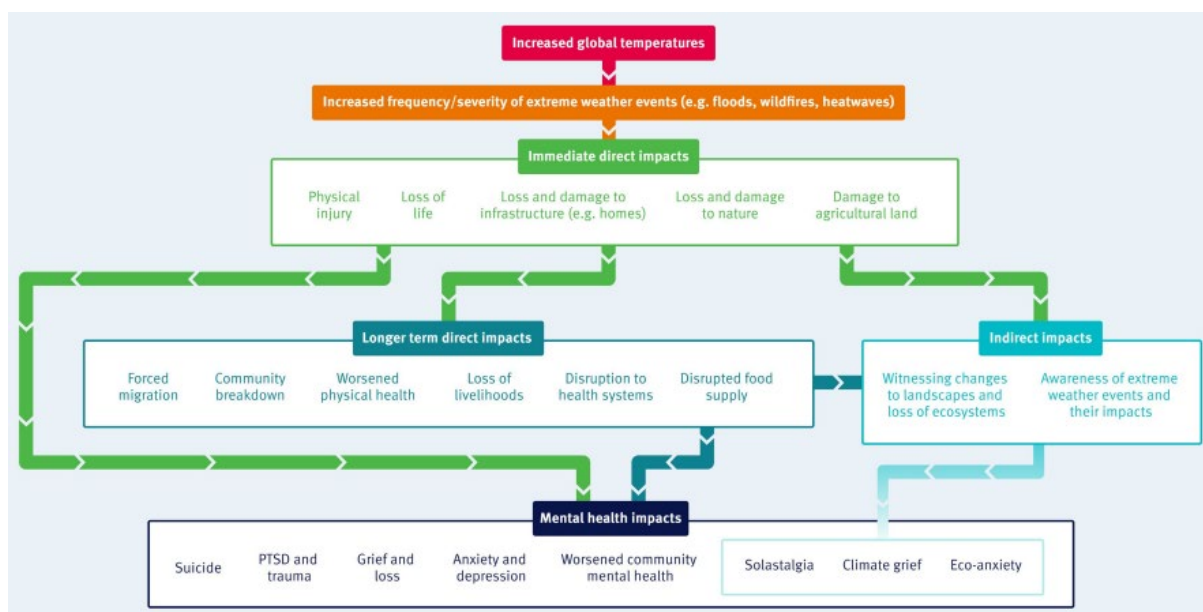


Figure 7: Impacts from extreme weather events to mental health (Lawrance et al., 2021)

1.2. Visualising the Intersection

The diagram presented in the Headline Findings section provides a high-level overview of the intersection between climate change, mental health and wellbeing, and gender. The diagram has been adapted based on two key theoretical frameworks:

- 1) The theoretical framework presented in a paper by Kim Robin van Daalen and colleagues entitled “Bridging the gender, climate, and health gap: the road to COP29” which was published in the Lancet Planetary Health at the time of writing (November 2024) (van Daalen et al., 2024). This is described above. In the diagram presented below, this framework has been adapted to flow into a simplified causal pathways diagram to illustrate the impacts specific to the intersection of focus.
- 2) A diagram entitled “Illustrative pathways by which extreme weather events impact mental health, with arrows indicating direction from cause to effect” in a Briefing Paper on climate change and mental health from the Grantham Institute at Imperial College London (Lawrance et al., 2021). This is also described above. Inspiration from that diagram has been used to inform the layout in this diagram from the orange ‘hazard’ section downwards, however in the diagram below, the content has been changed to include the gender focus and to align with the socio-ecological model (longer term direct impacts) and the IASC categories of mental health and psychosocial wellbeing (mental health & wellbeing outcomes).

It is important to note that in conceptualising this intersection, a great deal of simplification has taken place. This allows for visualisation of some of the key casual pathways at play, but it does not present the full picture. For instance, whilst the intersection with other social characteristics is noted, in reality the intersection of multiple identities and systems of power is much more complex. Similarly, an individual may experience multiple overlapping hazards (such as storms followed by floods or extreme heat) and they may be exposed simultaneously to food insecurity and intimate partner violence (IPV) (Corvalan et al., 2022).

1.3. Hazards

The IPCC defines a climate hazard as a climate condition that has the potential to cause damage and loss to natural systems or society (IPCC, 2023). Hazards do not act in isolation and may overlap and occur concurrently with other hazards (Corvalan et al., 2022). They also vary in duration and intensity.

Extreme weather events are increasing in intensity and frequency across the planet. Slow-onset events such as temperature rise, desertification and sea-level rise are also compounding the situation, with change taking place over longer periods. Every region is affected, and it is now an established truth that human induced climate change is driving these changes (IPCC, 2023).



- **Floods:** flooding is the most common natural disaster worldwide and it can cause widespread destruction, displacement, loss of life and damage to infrastructure. Flooding has been shown to have an adverse impact on psychological health, with exposure to persistent flooding and related damage to homes being a strong predictor of poor mental health outcomes (Pearce & Watkins, 2024). Gender norms around clothing, who is taught to swim and climb trees as a child, and around caregiving norms are all important factors influencing an individual's exposure and vulnerability to floods (Mamun et al. 2019), and therefore to the mental health impacts of them.



- **Storms:** similar to floods, storms and hurricanes can inflict widespread damage to infrastructure, cause loss of life and injuries, and disrupt essential services to vulnerable populations. There is a robust evidence base on the impact of storms and hurricanes on mental health outcomes, particularly in relation to hurricanes that have hit the USA such as Hurricane Katrina. One recent analysis indicated that hurricanes caused 14.5% more poor mental health days per month over 7 years after the event and that specific groups, like single mothers and black respondents, experienced notably larger mental health impacts (Civelek, 2023).



- **Extreme heat / heatwaves:** Extreme heat is one of the deadliest of the climate hazards. An IFRC analysis estimated that 38 heatwaves between 2010 and 2019 accounted for the deaths of over 70,000 people globally (IFRC & OCHA, 2022). Cities often suffer from the largest heat extremes due to the urban heat island effect. Mental health-related heat impacts are gendered and varied in nature, spanning impacts on suicide and psychiatric disorders (although the evidence base for the gendered dimensions of these is mixed), complications in pregnancy (Rothschild & Haase, 2023), sleep disruptions (Romanello et al., 2024) and increases in IPV. Heat can also alter physical exercise behaviour and economic productivity (Romanello et al., 2024), both impacting on mental health resilience. More information on heat impacts is provided in Section 1.5.



- **Wildfires:** with rising temperatures comes an increase in wildfires. Witnessing the destruction and loss of one's home and community to wildfire and experiencing the threat to safety can have significant consequences on survivors' mental health through PTSD, depression and generalised anxiety, which can persist for years after the event (To et al., 2021). Recent analysis of emergency department visits for anxiety disorders in the western United States indicated women were a particular at-risk population group (Zhu et al., 2024).



- **Drought:** Droughts are characterised as slow-moving disasters and they often precede the desertification process. Drought drives resource scarcity, livestock and agriculture loss, economic hardship and forced migration/displacement. All of these things also feed into conflict and intra-familial stressors (Vins et al., 2015) and can result in increased levels of anxiety, depression, suicide and aggressive behaviours (i.e. SGBV or IPV). Indigenous communities, and those with a strong connection to the land through agriculture or traditional practices are particularly impacted, and as women in lower income countries are often responsible for gathering water, fuel and agricultural work, they can be impacted the most (Pearce & Watkins, 2024).



A note on air pollution

Whilst air pollution is often thought of as a climate-adjacent issue, more aligned to environmental degradation, there is evidence to show that when combined with extreme temperatures, increases in allergen and pollutant levels can be observed (IFRC & OCHA, 2022; Massazza, 2023).

Recent papers from Checkuri and colleagues as well as Rothschild and Haase cite emerging evidence that air pollutants can increase the risk of psychiatric disorders, such as attention-deficit/hyperactivity disorder, depression, anxiety, and schizophrenia (Checkuri et al., 2024) (Rothschild & Haase, 2023). They also cite impacts to the human nervous and cognitive system which increases the risk of anxiety and depression, and importantly can have negative impacts on adolescent development, particularly during the transition into adulthood. Limited evidence exists on the gendered impact of this though. Similar to the impacts of extreme heat, respiratory illnesses can also reduce mobility and capacity to work which can have detrimental mental health impacts, particularly in low-income settings (Corvalan et al., 2022).

Rothschild and Haase present important impacts over an individual's lifecycle, highlighting how these are often worse for women than men. Multiple studies link air pollution to negative birth outcomes, increased rates of perinatal depression and anxiety amongst the mother, and in-utero/early life exposure to air pollution is also associated with poor lifetime mental health outcomes for the child (Rothschild & Haase, 2023). Elderly women also appear to have an increased risk of poor mental health outcomes when exposed to air pollution (Montoro-Ramírez et al., 2024).

1.4. The Role of Gender

“Women, girls, and gender minorities tend to have a higher climate change burden due to their heightened exposure, vulnerability, and more limited adaptive capacity compared with men and boys”
(van Daalen et al., 2024)

Van Daalen and colleagues present gender and sex-related factors as key modifiers of exposure and vulnerability to health risks from climate hazards. In this context biological sex relates to the physiological responses and disease progression through genetic, epigenetic, and hormonal pathways. Gender and socio-cultural factors on the other hand include gender roles and norms, gender identity and expression, as well as factors linked to lifestyle, socio-cultural and social environment. These interactions are combined with other social characteristics like wealth, class, freedom of expression, level of emancipation, ethnicity, race, and age which also impact on vulnerability and exposure. The analysis in this document focuses on the gender components of Van Daalen's model but also takes account of the biological and other socio-cultural components presented.

Below is an overview of the key gender-related populations of interest to this analysis highlighting key factors at play within the context of climate change. The specific impacts are detailed in sections 1.5 and 1.6 below.

Women

Whilst the evidence base on how climate impacts women's mental health and wellbeing is incomplete and uneven from a global perspective (Stone, Blinn and Spencer, 2022) (Hayes and Poland, 2018), there is an ever-growing body of literature exploring the dynamics at play.

- **Rigid gender norms and women's limited agency reduces their adaptive capacity:** traditional gender roles and expectations restrict women's mobility, economic independence, and participation in leadership, leaving them with fewer opportunities and tools to build resilience in the face of climate-related challenges. Women are less likely to be taught life-saving skills such as swimming and climbing and have limited access to practical information on disaster mitigation and preparedness (Kivioja et al., 2023). This unequal access to resources limits their adaptive capacity and increases their vulnerability to mental health issues. Gender norms around women's clothing can also impact their ability to cool themselves in public, increasing the risk of heat impacts. Gendered inequities in digital and health literacy, and limited access to technology and safety information more generally, means that women often receive EWS alerts later than men (Checkuri et al., 2024).
- **Pre-existing inequities that women already face are exacerbated by climate change** and further impact on negative mental health outcomes. Historical and entrenched social norms and power imbalances impact exacerbate women experience of climate change (Munala et al., 2023). These include poverty, unequal access to resources and education, constraints on movement and freedom, and disproportionate caregiving responsibilities (Stone et al., 2022)
- **Women are more susceptible to common mental health issues** such as depression and anxiety, (Stone et al., 2022) – due to a mix of biological factors (i.e. hormonal changes), socio-cultural factors (i.e. gender discrimination) and social constructionist factors (i.e. biased diagnostic criteria) (Baños & Miragall, 2024). The 2016 Adult Psychiatric Morbidity Survey in the UK indicated that women are three times more likely than men to experience common mental health problems.

- **Women's vulnerability changes over the life course:** This vulnerability is exacerbated by gender-specific mental health needs across a woman's life course, including during menarche, pregnancy, ongoing menstrual health, and menopause (Checkuri et al., 2024).

Men

Men also face unique vulnerabilities shaped by traditional gender roles and societal expectations. These also play into men's risk of negative mental health outcomes by influencing how men experience and respond to the impacts of climate change, often in ways that are less visible but no less significant. Nagel and Lies argue that much climate change research conflates gender with women and that this focus on women's suffering diverts attention from a thorough examination of the mechanisms and consequences of men's domination of climate change research and policy (Nagel & Lies, 2022).

- **Risk-taking behaviours and hazard exposure:** In many contexts, men are expected to take on physically demanding or hazardous jobs, such as fishing, logging, or construction, which expose them directly to climate risks. For instance, men often comprise the bulk of the rescue and reconstruction work associated with extreme weather events (Nagel & Lies, 2022).
- **Emotional and Psychological Vulnerability:** Societal norms often discourage men from expressing vulnerability or seeking mental health support (Ezeugwu & Ojedokun, 2020), even in the face of severe climate-induced stress. Ezeugwu & Ojedokun explore the how African beliefs and ideologies delineate men as brave, noble and strong – but also as emotionally intelligent and self-reliant, which results in denial and avoidance of engaging in emotional discussions. They propose that this forces men into a helpless zone that is traumatic, which is further compounded when they face stressors. Climate change would be just such a stressor and the pressure to fulfil the role of the "provider" in times of resource scarcity, displacement, or economic downturns can lead to mental health issues such as depression, anxiety, and even increased rates of suicide.
- **Masculine gendered norms:** as with feminine gender norms that dictate how women should behave and dress, masculine gender norms also place men at increased risk of developing poor mental health outcomes due to climate impacts. Examples include the expectation that men will engage in violence and conflict (Francis, 2024) or that they will be the ones to migrate to find work. Both of these contexts are often driven by climate-induced resource scarcity, and both putting men at risk of social isolation or precarious legal statuses and ultimately impacting on their mental health and wellbeing.
- **Social isolation and lack of support networks:** In some contexts, men have fewer social support networks to rely on during crises than women. This isolation can hinder their ability to adapt effectively to climate impacts, as they may lack the community-based resilience mechanisms that women more commonly access. It is important to note however that men often have stronger connections to formal support networks that facilitate their inclusion in DRR and adaptation planning for their local communities from which women are often excluded.
- **Men's role in driving and tackling climate change:** these traditional gender roles have meant that overall men hold a disproportionate responsibility for driving the destruction of our planet and continuing to cause climate change. They dominate the fossil fuel industry and the military, and gender norms often dictate that they consume more red meat and enjoy carbon intensive activities (such as motor sports). As Nagel and Lies put it: *"Men not only are the captains of industry and the champions of carbon consumption, they also are the wagers of war"* (Nagel & Lies, 2022). The flipside of this is that they are also key to the progress that has been made at climate action and the male contribution to this progress must not be denied. It does however skew the climate agenda towards male interests and modes of thinking – for instance male scientists' interest in the physical science has dominated over an exploration of the human dimensions that more female scientists would support (Nagel & Lies, 2022).

Sexual and gender minorities

Lesbian, gay, bisexual, transgender, intersex, and queer or questioning (LGBTQI) individuals, commonly referred to as SGM, face heightened vulnerability and exposure to the mental health impacts of climate change due to pre-existing social, economic, and systemic inequities.

- **Pre-existing marginalisation and stigma resulting in higher burden of mental illness:** in many communities around the world, SGM individuals experience social exclusion and discrimination, often resulting in reduced access to healthcare, housing and employment (Kivioja et al., 2023). Coping mechanisms frequently developed amongst this population include anticipated rejection, self-stigma, concealment of identity, and internalised homophobia, all contributing to a higher burden of mental illness than is found amongst their cis gender/heterosexual counterparts (Israni et al., 2024). During climate-induced crises such as natural disasters or displacement, these challenges are exacerbated, leaving them more vulnerable to mental health issues like anxiety, depression, and PTSD.
- **Lack of inclusive support systems:** Traditional support networks, such as family, religious institutions, or community groups, often exclude or fail to address the needs of SGM individuals. This lack of affirming social connections can leave them with fewer coping mechanisms and emotional outlets during climate-related stress, intensifying feelings of isolation and helplessness.
- **Heightened risks in crisis settings, particularly if displaced:** SGM individuals are at higher risk of homelessness and housing insecurity due to systemic discrimination and familial rejection. They are therefore starting from a more precarious situation and if displaced by an extreme weather event, may face further isolation as shelters and emergency services may also be unsafe or unwelcoming for SGM individuals (Israni et al., 2024). Such experiences can result in trauma, compounded by a lack of tailored mental health support in recovery contexts.
- **Discriminatory disaster relief policies:** in many contexts, faith-based organisations play a central role in post disaster relief (Israni et al., 2024) and they may have exclusionary policies / practices / attitudes that represent a barrier to access to mental health services for SGM individuals (Checkuri et al., 2024). DRR planning often also overlooks these ‘invisible’ populations, and a lack of legal identity may also hamper meaningful participation, particularly for transgender individuals (Kivioja et al., 2023).
- **Barriers to mental health services:** these discriminatory practices can also play out in terms of access to essential health services and LGBTQI individuals often face a lack of understanding in healthcare systems, including mental health services. In the aftermath of climate events, mental health support is often limited or inaccessible, and LGBTQI individuals may struggle to find culturally competent care that addresses their unique needs.
- **Reduced adaptive capacity:** These compounded challenges, rooted in marginalisation, exacerbate their ability to prepare for, cope with and recover from climate-related stressors, leading to disproportionate psychological burdens.
- **Fear of erasure and loss of safe spaces:** Climate change can disrupt or destroy LGBTQI-friendly neighbourhoods, organisations, or gathering spaces, which often serve as critical sources of safety and identity for these populations (Kivioja et al., 2023). The loss of these spaces can deepen feelings of grief, identity insecurity, and mental distress.

Girls & Boys (including adolescent girls and boys)

Nearly one in two children reside in a country classified as “extremely high risk” to the impacts of climate change (International Data Alliance for Children on the Move, 2024). Children – girls, boys and SGM children - are particularly vulnerable to the mental health impacts of climate change due to a combination of age-specific developmental challenges, gender-based inequalities, societal expectations, and the specific roles they are assigned during crises. Climate-related stressors such as displacement, resource scarcity, and disaster trauma exacerbate these risks, often leaving children with

limited access to the resources and support needed to cope. Here the discussion includes both younger girls and boys as well as adolescent girls and boys, highlighting where specific risks relate to specific age groups or genders.

- **Dependency on adults:** children and adolescents are particularly vulnerable to the impacts of climate change, in part due to their dependency on adults (Augustinavicius et al. 2021). They rely on adults for safety, food, shelter, protection and importantly, attachment bonds, the latter particularly in their earlier years of life. In times of crisis, this dependency can leave them with feelings of helplessness and uncertainty as the adults they rely on may also be struggling to cope, or indeed, may be separated from them. In observing or perceiving this inability of adults and caregivers to cope or effectively mitigate a threat, the child/adolescent can experience a reduced sense of control/agency which can increase the severity of the trauma (Israni et al., 2024)(Corvalan et al., 2022). In particular, Israni and colleagues point to adolescents' lack of agency to bring about change themselves or to pivot decisions in their favour which can evoke feelings of powerlessness and fear (Israni et al., 2024).
- **Disruptions during critical stages of development:** childhood and adolescence are times of high development vulnerability when most psychiatric disorders are developed (International Data Alliance for Children on the Move, 2024). Experiencing stress, fear and insecurity during these periods of development is known as Adverse Childhood Experiences (ACE). These can impact on long-term childhood development and can result in delayed achievement of development milestones including self-regulation, neurocognitive competencies (e.g., attention and memory), intrapersonal competencies (e.g., self-efficacy), and interpersonal competencies (e.g., relationships and communication) (Israni et al., 2024). ACE can also result in numerous physical health impacts such as coronary artery disease, liver disease, chronic obstructive pulmonary disease, autoimmune disease and cancer, ultimately resulting in a shortened lifespan (Israni et al., 2024).
 - ❖ **Adolescents:** the adolescent period is a time of major neurocognitive and hormonal changes – children may be especially vulnerable to the adverse impacts of disrupted social networks arising from mobility or immobility. It is a critical opportunity for establishing healthy social-emotional learning, patterns, skills etc – that prepare them for adult life, and it defines how they will contribute to society in the future (UNICEF, 2022c). If, during this critical period, adolescents experience significant stress and trauma from something like an extreme weather event, their beliefs and feelings about themselves and the world can be impacted, influencing their future functioning and interactions with society (Israni et al., 2024).
 - ❖ **Adolescent girls:** Globally, adolescent girls are between one-and-a-half and two times more likely than adolescent boys to suffer from emotional disorders, such as anxiety and depression (UNICEF, 2022c).
 - ❖ **Adolescent boys:** in contrast to girls, adolescent boys suffer more from behavioural disorders. Where girls internalise stressful experiences, boys externalise them resulting in behavioural issues and violence (UNICEF, 2022c).
- **Pressure to fulfil traditional gender-related roles:** in times of crisis children, and particularly older adolescents, are expected to step up and shoulder an additional burden of responsibility within the family, as well as more broadly within communities. Gender norms tend to dictate what those roles are:
 - ❖ **Girls:** In many cultures, girls are expected to take on increased caregiving responsibilities during climate crises, such as caring for younger siblings or the elderly, or fetching water. Whilst some feminine norms can be protective (i.e. that most cultures often discourage adolescent girls from drinking), some can add risk and mental burden (i.e. service to family and caregiving of the young, ill or elderly) (UNICEF, 2022c).
 - ❖ **Boys:** In many societies, masculine norms dictate that boys and adolescent boys are expected to take on the role of protectors and providers for their families, often

exposing them to additional risk and potential trauma. This pressure can be overwhelming, particularly for adolescent boys who may lack the resources or emotional maturity to manage such responsibilities. Failing to meet these expectations can lead to feelings of inadequacy, shame, and increased stress – feelings that boys are often discouraged from expressing and that can contribute to the disproportionate burden of suicide borne by adolescent boys (UNICEF, 2022c).

- **Fear and anxiety about the future:** As above, climate anxiety is discussed in more detail in Section 2.3 below, however it is worth noting that adolescents are a particularly at-risk group. Although the evidence-base is still very much emerging in this area, particularly for low-income settings, gender differentials for adolescents indicate the following:
 - ❖ **Adolescent girls:** females express greater levels of concern and negative emotions in terms of climate anxiety and fear about the future in relation to climate change (S. D. Clayton et al., 2023). This trend is mirrored in a Tanzanian study (Prencipe et al., 2023) and a Kenyan study (Ndeti et al., 2024).
 - ❖ **Adolescent boys:** males on the other hand are more optimistic and have greater faith in the ability of the government to address the issue (S. D. Clayton et al., 2023).

Intersectional vulnerabilities: individuals from any of the groups outlined above who are also part of other marginalised groups, such as indigenous communities, racial minorities, or low-income households, face compounded risks. These can amplify their exposure to climate-induced stressors and further limit access to mental health resources, exacerbating psychological impacts.

Of particular note, are individuals from groups listed above who also have with disabilities, specifically **girls and boys with disabilities:** girls and boys with disabilities are often excluded from education and do not have the same opportunities to learn about sexual violence and healthy relationships compared to peers without disabilities/not living with disabilities and as a result are at a higher risk of SGBV compared to those without disabilities (Save the Children International, 2023). When climate is layered on top of these vulnerabilities, the mental health impacts are intensified.

A note on indigenous communities

Whilst not a gender-related category, it is important to note the compounded risks faced by indigenous communities due to systemic inequities and historical exclusion. These are communities that are particularly connected and dependent upon their surrounding environments putting them at a higher risk of experiencing poor mental health due to climate change (Massazza, 2023). Their mental health is often poorer than that of their non-indigenous counterparts, an inequity that is often aggravated by climate policies for example through increasing conflict over land ownership (Romanello et al., 2024). The gender-specific dynamics outlined above are therefore further intensified amongst indigenous women, men, girls and boys.

1.5. Direct and indirect impacts

Individual

Heat Stress

- Heat stress can lead to developmental delays & related MH issues
- Pregnancy related heat stress increases the risk of adverse birth outcomes, including stillbirth, leading to psychological morbidity
- Heat increases hospitalisation from psychiatric disorders & increases suicides although the gendered dimension is unclear
- Heat interacts with some MH medications, including antidepressants, that are more commonly prescribed to women
- Extreme heat is particularly dangerous for the elderly, with elderly women and the elderly with disabilities most at risk

Malnutrition

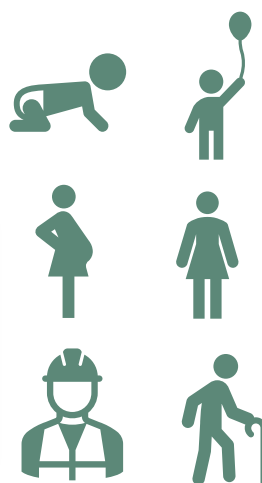
- Gender norms result in women and girls suffering higher rates of food insecurity, and therefore malnutrition, than men and boys
- Women suffer higher rates of anaemia due to climate-driven malnutrition than men – MH impacts of anaemia include cognitive impairment and bipolar disorder
- Malnutrition, particularly amongst girls can lead to developmental delays and subsequent MH issues

Climate-sensitive vector-borne diseases

- Gender roles influence exposure and consequent psychological impacts of climate-sensitive infectious disease. For instance, women and girls collecting water are put at risk and men in outdoor work environments are also put at increased risk.
- Pregnant people are more at risk of acquiring climate-sensitive vector-borne diseases (malaria, dengue, Zika). Psychological impacts include stress/anxiety but also psychosis from certain diseases.

Impacts at the individual level

(through the life-course)



WASH-related impacts

- Women and girls in charge of collecting water have to go further, putting them at increased risk of SGBV (see interpersonal impacts) and vector-borne diseases as well as an increased physical and mental load.
- Women and girls have an increased need for WASH facilities during menstruation and childbirth and in climate-strained settings this can lead to poor health outcomes and increased stress and anxiety

Sexual health impacts

- Climate disruptions can result in increased sexual risk-taking behaviour which can lead to increased transmission of HIV and other sexually transmitted infections, both associated with poor MH

Exacerbation of existing MH conditions

- Post-natal maternal mental health impacts are exacerbated during crises, particularly for new mothers – stress, anxiety, depression
- The elderly are limited by their physical, cognitive, psychosocial conditions and economic resources – even more acute during crisis events – makes them highly dependent on younger generations
- Gender norms that see men as the provider result in mental health impacts from anxiety about food and water security, particularly in rural areas.

Subjective impacts: climate anxiety, eco-distress and solastalgia

- Heightened anxiety and distress in response to witnessing climate impacts, either directly or through media
- These impacts have particular significance for young people who have little power to limit this harm, making them vulnerable to increased climate anxiety
- Women and other populations who are closely connected to nature and the land, experience higher levels of these heightened anxieties.

Heat stress

Heat stress leading to developmental delays: Exposure to heat stress is linked with increased wasting (low weight-for-height and weight-for-age) and wasting is closely associated with developmental delays (Bonell et al., 2024). In early childhood, such delays can adversely impact mental health by hindering both cognitive and emotional growth, leading to a higher risk of anxiety, depression, and social difficulties later in life. Infants aged 6–18 months are the most vulnerable to the effects of heat stress.

Heat impacts during pregnancy: Heat stress during pregnancy, particularly in the first trimester, is a critical concern and it can have lifelong effects (Bonell et al., 2024). Extreme heat is associated with adverse birth outcomes, including preterm birth and stillbirth, adding an additional psychological burden on mothers (Checkuri et al., 2024). A staggering 17%–19% of stillbirths can be attributed to temperature extremes (Rothschild and Haase, 2023). The experience of stillbirth is linked with increased psychological morbidity through feelings of shame, guilt, and a sense of failure in women, as well as heightened marital stress and isolation.

Impacts on psychiatric disorders & suicides: Hospitalisations for psychiatric disorders tend to increase during heatwaves. The link between heat exposure and suicide is well evidenced (Rothschild & Haase, 2023), however for both of these mental health issues, the evidence base is skewed towards high income countries and there are mixed gender differentials (Checkuri et al., 2024).

Interactions with mental health medications: Heat can interact on the bio-medical side as certain medications for existing mental health disorders can disrupt the body's physiologic response to heat, impacting its ability to regulate temperature. This includes antidepressants, which are more commonly prescribed to women than men (Rothschild & Haase, 2023).

Heat stress amongst elderly women: Extreme heat is particularly dangerous for the elderly, and elderly women and the elderly with disabilities are most at risk. A scoping review by Ramirez and colleagues highlighted a risk profile of experiencing greater adverse effects during a heat wave: women, over 75 years of age, living alone or in a residence, with chronic illnesses or severe mental illnesses (Montoro-Ramírez et al., 2024).

Malnutrition

Malnutrition leading to developmental delays: Malnutrition presents another significant challenge associated with developmental delays, mental health issues, and neurological problems (Corvalan et al., 2022). Moreover, studies have indicated that girls are more affected by food insecurity and, consequently, malnutrition than boys (FAO, 2024), highlighting a gender disparity in nutritional impacts.

mental health impacts of climate-driven malnutrition amongst women: Women have greater nutritional needs during menstruation and childbirth, however 32 percent of women face moderate or severe food insecurity, compared to 28 percent of men, as reported by (FAO, 2024). This disparity is compounded by cultural and gender norms that prioritise feeding children and men over women (Checkuri, Sood, and Campbell, 2024). Consequently, women suffer higher rates of anaemia due to climate-driven malnutrition and micronutrient deficiencies caused by increased levels of atmospheric carbon (Rothschild and Haase, 2023). Anaemia has known mental health impacts, including cognitive impairments, such as poor attention span, diminished working memory, and limited productivity (Checkuri, Sood, and Campbell, 2024). Furthermore, iron deficiency is associated with significantly higher odds of bipolar disorder in women, as well as elevated risks for autism, tic disorder, anxiety, developmental delay, and other psychiatric issues (Rothschild and Haase, 2023).

Climate-sensitive infectious diseases

Infectious diseases such as malaria, dengue, zika virus are termed as 'climate sensitive' diseases due to the strong evidence base highlighting how climate change increases the range expansion and the rate of reproduction (IPCC, 2023).

Gender roles influence exposure and consequent psychological impacts of climate-sensitive infectious disease: Gender roles influence the exposure and consequent psychological impacts of climate-sensitive infectious diseases. Women who remain homebound most of the day and reside near stagnant water are at increased risk of mosquito-borne diseases such as dengue, malaria, and Zika. These diseases have specific mental health implications, including mania, psychosis, and emotional distress. Dengue fever has been associated with acute syndromes such as mania and thanatophobia, as well as later mental syndromes, which are more prevalent in women than men, including insect phobias, anxiety, and depression (Rothschild and Haase, 2023). Men, often spending more time outdoors away from the home, are also exposed to these diseases (Rothschild and Haase, 2023).

Psychological impacts of increased infectious disease risk during pregnancy: Increased infectious disease risks also pose psychological impacts for pregnant individuals. They are more susceptible to acquiring malaria than non-pregnant individuals (Rothschild and Haase, 2023) and are particularly vulnerable to mental health impacts from climate-sensitive infectious diseases, including heightened anxiety, distress, fear, and hypervigilance (Checkuri, Sood, and Campbell, 2024). In Brazil, several studies have shown worsening mental health with Zika virus, with increased rates of depression and anxiety among mothers of infants with congenital Zika manifestations (Rothschild and Haase, 2023).

WASH-related impacts

Water, sanitation and hygiene (WASH)-related impacts: WASH-related impacts disproportionately affect women in LMICs. Women and girls are primarily responsible for procuring and using water, and as climate change exacerbates water insecurity, they must travel further and to potentially more dangerous locations, increasing their risk of SGBV and the direct psychological impacts of that. This also heightens their exposure to climate-sensitive diseases and heat stress. The physical burden of carrying water is also directly linked to reduced psychosocial well-being and higher emotional distress. This increased burden also means less time available for other household chores, heightening the mental load for women and girls (Checkuri, Sood, and Campbell, 2024).

Additionally, women require extra water and sanitation resources during menstruation for effective MHM. The climate-driven lack of these resources can have mental health impacts, and menstrual poverty is associated with mental distress, anxiety, and shame (Checkuri, Sood, and Campbell, 2024).

IDP camps can further restrict access to WASH facilities, particularly for women and girls. The lack of privacy and inadequate lighting in WASH facilities in these camps can make women feel unsafe and increase their risk of SGBV (International Data Alliance for Children on the Move, 2024).

Pregnancy-related WASH impacts: Women require increased access to these resources during pregnancy and childbirth and climate events such as storms, floods and droughts can impact on access to and quality of WASH facilities. There is a strong association between low access to sanitation facilities and adverse pregnancy outcomes (Checkuri et al., 2024) and poor pregnancy outcomes have a direct impact on mental health.

Sexual health impacts

Changes in sexual risk-taking behaviour: Climate disruptions that lead to displacement, reduced economic stability and food insecurity can also lead to alterations in sexual behaviours, including condomless sex, transactional sex and concurrent sexual relationships (Nordic Consulting Group, 2024). These behaviours increase the transmission of HIV and other sexually transmitted infections and are associated with poor mental health.

Exacerbation of existing mental health conditions

Post-natal mental health & wellbeing: In LMIC 20% of women experience postnatal mental disorders. Younger, unmarried, and socio-economically disadvantaged women are at greater risk (UNICEF, 2022c).

Extreme weather events can result in high levels of stress, anxiety, and depression affecting both maternal and newborn health outcomes, particularly amongst new mothers (Barnes et al., 2024).

mental health impacts from anxiety about food and water security: Climate-induced drought has been associated with higher rates of suicides among rural males, although there are nuances linked to alcohol and substance use, gender identity, and social isolation, making this an area needing further study (Checkuri, Sood, and Campbell, 2024). Food insecurity is broadly associated with higher overall rates of mental health diagnoses and has been linked to population-level increases in negative symptoms such as pain, sadness, stress, anger, and worry (Rothschild and Haase, 2023).

Exacerbation of existing mental health conditions amongst the elderly: Older adults are highly dependent upon younger generations during climate events and their response capacity is limited by existing physical, cognitive, psychosocial conditions and their lack of economic resources (Mehta et al., 2024).

Cognitive deficits and air pollution amongst elderly women: Elderly women appear to have an increased risk of adverse mental health outcomes upon exposure to ambient air pollution. However more research is needed to understand how air pollution impacts on long-term neurocognitive decline among elderly women (Rothschild & Haase, 2023).

Subjective impacts: climate anxiety, eco-distress and solastalgia

“Climate change exacerbates mental distress, particularly among young people, even for individuals who are not directly affected” (Lawrance et al., 2021)

This section presents the impacts of climate change on individuals that are often coined as ‘subjective’ and that arise through either awareness of the impacts other people are experiencing, or through bearing witness to other people’s suffering from climate impacts.

The constructs and terminology used to describe the mental health and psychosocial impacts of climate change can vary across cultures, and there remains significant research gaps in understanding the constructs and terminology mental health relevant for the majority world. It is important to note that people can still have these emotions without the complex understanding of climate processes and the role that human activity plays in it (Prencipe et al., 2023) and this should be built into research studies to avoid further exclusion of already marginalised populations.

The extent of the problem and relevance to humanitarian contexts

Historically, climate anxiety has predominantly been studied as a phenomenon affecting the higher income contexts, with limited research on its impact in low- and middle-income countries (LMIC) - despite these regions experiencing more severe climate extremes. However, a small number of studies have emerged focused on LMIC contexts (a selection profiled below), indicating that it could also be an issue of concern for these contexts. However, it must be noted that these studies are not comparable as the constructs and definitions used are not standardised. This lack of alignment is an issue that is highlighted as a concern impacting the broader intersection and so whilst further research is required to explore the applicability of the concept of climate anxiety in these contexts, there first needs to be a process of standardisation/alignment to facilitate better comparability.

Three examples of these more recent studies have been included in this section: Hickman’s findings presented below as well as findings from Prencipe in Tanzania and Ndeti in Kenya. Also presented in this document is testimony and emerging findings from a current PhD student studying how young people in coastal Tanzanian communities perceive climate change.

Hickman and colleagues undertook a large study involving 10,000 young people aged 16–25 across 10 countries. Findings highlighted widespread climate anxiety. The majority of respondents (59%) were very or extremely worried about climate change, with 45% reporting that their concerns affected their daily functioning. The mental health impact was particularly severe in youth from LMICs like India,

Nigeria, and the Philippines, where they face more extreme climate conditions compared to their peers in high-income nations (Hickman et al., 2021). It is worth noting that limitations related to this study include that the measure that they used was not validated nor was reliability tested, so while the study showed interesting preliminary evidence its findings should not be taken as conclusive.

Previous experience of climate impacts is reported to increase anxiety about future impacts (S. D. Clayton et al., 2023), indicating that proximity to climate events is a predictor of climate anxiety, underlining the importance of further study in regions most heavily impacted by climate events.

Gender differentials

Globally women experience more anxiety and worry than men and the evidence base on climate anxiety mirrors this pattern (Checkuri et al., 2024). Clayton and colleagues points out that this may also be in part related to perceived differences in impacts (S. D. Clayton et al., 2023) and Ndetei and colleagues note that it may relate to gender norms where it is more accepted for females in societies to express worry and sadness (Ndetei et al., 2024).

Prencipe and colleagues published a study in 2023 involving 2,053 Tanzanian youths aged 18-23 that explored climate change distress and its association with mental health. The study indicated distress was higher among females, the more educated, the more religious, older youths, and those working in extreme temperatures (Prencipe et al., 2023).

Ndetei and colleagues undertook a cross-sectional study involved 2,652 high school students from three regions in Kenya, assessing their experiences with climate change, mental health issues, and suicidality. Suicidal thoughts and suicide plans were linked to all five concerns about climate change, with females being more worried and afraid of climate change than males and rural students being more worried about climate change than their urban counterparts.

Age differentials

Whilst an individual of any age may experience climate anxiety, evidence suggests that young people are more acutely impacted (Ha, 2024). Young people's lives will extend further into the future and so they are more likely to experience the impacts of worsening climate realities. They may also be more engaged in social media that brings the realities to life across the world.

The role of climate anxiety in mobilising climate action

The current literature base suggests that climate change anxiety is largely a normative response among significant numbers of the population, including in young people. The Climate Psychology Alliance highlight the positive role climate anxiety can play in mobilising climate action. More generally, fear and anxiety are feelings that alert us to danger and can mobilise us into action (Climate Psychology Alliance, 2022) and that by experiencing the distress, we can then take the action that is in fact required of us (Israni et al., 2024). They urge caution not to 'pathologize' the issue and quote Graham Lawton from the New Scientist:

If eco-anxiety is treated as a pathology, then the forces of denial will have won. What we are witnessing isn't a tsunami of mental illness, but a long-overdue outbreak of sanity"

Graham Lawton quoted in (Climate Psychology Alliance, 2022)

Israni and colleagues also note that the interaction of climate anxiety with pre-existing mental disorders is not well understood (Israni et al., 2024). Clayton echoes this, particularly for people with less personal resilience or agency (S. D. Clayton et al., 2023).

Ogunbode analysed cross-sectional data gathered in 32 countries and found that climate anxiety is related to the nature of information, with information about climate impacts being more strongly linked to climate anxiety than information about climate solutions (Ogunbode et al., 2022).

Interpersonal

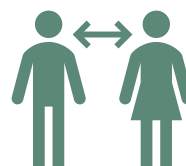
Conflict over natural resources

- Climate change drives competition over land and resources, leading to conflict and displacement
- Gender norms in many contexts mean men are drawn into the fighting and can suffer intense emotional trauma
- Climate drives recruitment and demand for child soldiers, both boys and girls
- Less resilient female headed householders often result from conflict

Sexual & gender-based violence / IPV

- Clear evidence base that climate change drives SGBV & IPV due to economic instability, food insecurity, disrupted infrastructure, increased exposure to men and lack of safe shelter
- MH impacts of SGB/IPV include higher rates of depression, anxiety, posttraumatic stress disorder, and suicide
- Climate change disrupts protective services as well as treatment and recovery services
- Most at risk populations: adolescent girls, girls with disabilities, rural and pastoral women and girls, SGMs and conflict affected populations.

Impacts at the interpersonal level



Child protection issues

CEFMU:

- Evidence base to show that CEFMU is being used as a survival strategy for families impacted by climate change
- CEFMU affects girls and is associated with increased risk of IPV, self-harm and suicide
- It is based on existing traditional gender norms and families justify it in terms of protecting their daughters and the honour of the family

Exploitation:

- Girls and boys are entering the workforce at a younger age in climate impacted areas and are at risk of trafficking when separated from their parents in climate disasters

Increased burden of care

- Gender norms lead to women shouldering a disproportionate burden of care & climate change increases this burden, potentially leading to burnout and chronic anxiety.
- This additional burden is yet another barrier women face in engaging in community-level decision making on climate adaptation.

Conflict over natural resources

Climate-driven conflict and the mental health impacts on men, women and children: Climate change drives resource scarcity and displaces people from their homes, leading to increased competition and conflict over natural resources, land rights and access. This issue is particularly acute in regions dependent on agriculture and within pastoralist communities where climate events disrupt grazing lands, water availability, and livestock health. One in five persons exposed to conflict experiences a mental health condition, while countless others endure distress, including feelings of loss, fear, anger, and hopelessness (Corvalan et al., 2022). Gender norms mean that men are particularly at risk of being drawn into conflicts, often bearing the mental health burden of armed combat itself while women and children are rendered more vulnerable as a result.

Climate-driven recruitment and demand for child soldiers: The impact of conflict on children is profound, with climate-driven factors increasing both the supply of children willing to work as soldiers and the rebel groups' demand for them. This is attributed to economic/social pressures resulting from climate variability, as children are often withdrawn from school or displaced, leaving families less able to protect them (Bakaki & Haer, 2023). Climate change not only increases the number of boys recruited but also substantially raises the likelihood of girls being recruited (Bakaki & Haer, 2023).

Gender norms often dictate that women, children, and the elderly remain at home while men go out to fight. This increases the number of female-headed households and brings associated risks to both the physical and mental health of those remaining at home (Kagunda et al., 2024). Female headed households have lower access to resources and income opportunities, restricted land ownership, and reduced social support, making it harder to cope with economic and environmental shocks.

Sexual and gender-based violence (including IPV)

“SGBV may in fact be one of the most important gender-specific outcomes related to climate change that drives gendered mental health outcomes” (Checkuri, Sood and Campbell, 2024)

Drivers of SGBV/IPV: A 2022 systematic review revealed an increase in SGBV during or after extreme weather events, often linked to economic instability, food insecurity, mental stress, disrupted infrastructure, increased exposure to men, traditional gender norms, and exacerbated gender inequality (van Daalen et al., 2022). Extreme temperatures can also increase levels of IPV due to lack of sleep and heightened stress. Drivers of SGBV include increased stressors among men after disasters, activation of environments conducive to violence, exacerbation of underlying factors, and disruptions to preventative interventions and law enforcement during and after climate events (Checkuri et al., 2024). Additional risk factors include high rates of existing trauma and mental health problems, alcohol and substance abuse, deterioration of family structures, social isolation, and stressors from loss of housing and livelihoods, all further exacerbated by climate change. Lastly, climate change increases the cost of living, making it harder for women to leave domestic violence situations (Stone et al., 2022).

mental health impacts of SGBV / IPV: The mental health impacts of SGBV and IPV on women include higher rates of depression, anxiety, PTSD, and suicide (Tol et al., 2017). Tol and colleagues cite a study on adult women in the eastern Democratic Republic of the Congo that found the prevalence of mental health issues was higher among women with a history of IPV compared to those without one. The reported prevalences were past-year major depressive disorder (64.9%), past-month PTSD (77.2%), past-year suicidal ideation (42.4%), and lifetime suicide attempt (33.1%) (Tol et al., 2017).

Disrupted access to services puts women and girls at increased risk: In contexts of displacement, safe shelter for women and girls is crucial. Overcrowding and lack of privacy (Checkuri, Sood, and Campbell, 2024), as well as increased exposure to men compared to usual (van Daalen, 2022) put women and girls at increased risk of SGBV. SGBV treatment and recovery services can be limited after disasters, particularly within IDP camps (Save the Children International, 2023), where key health and judicial services can be absent or inaccessible (van Daalen, 2022).

Most at-risk populations: The most at-risk populations in humanitarian settings include adolescent girls, rural women, those with low socio-economic status (Stone, Blinn, and Spencer, 2022), and girls with disabilities (Save the Children International, 2023). SGM may have unique risks due to marginalisation (van Daalen, 2022), though this requires further study to understand specific drivers and vulnerabilities.

In rural and agricultural settings, women face heightened risks as dwindling resources create threats to livelihoods and the gender norms that posit men as providers (Munala et al., 2023) create stress and anxiety for the man which puts the woman under increased IPV risk. Conflict-affected populations are also at increased risk of IPV, a situation exacerbated by additional climate stressors (Tol, 2017). Pastoral women are highly marginalised, with climate vulnerabilities creating pathways for SGBV in pastoralist households in Africa. For example, in Somalia, climate-induced pastoral conflicts have turned political, with women and girls raped to send politically motivated messages to other clans (Kagunda et al., 2024).

Child protection issues

Climate change as a driver behind increases in CEFMU: CEFMU is associated with mental health problems, including an increased risk of IPV, self-harm, and suicide (Checkuri, Sood, and Campbell, 2024). Research shows that families often use CEFMU as a survival strategy during times of hardship, with climate change being a contributing factor to this hardship (Kivioja et al., 2023). Gender norms often underpin this survival mechanism, and for the affected girls, CEFMU is a likely driver of depression and anxiety in adolescent girls (UNICEF, 2022c)

In crisis situations characterised by insecurity, increased risks of SGBV, and lack of rule of law, or in IDP camps, families may see CEFMU as a coping mechanism to protect their girls and the family's honour amid disrupted social networks and routines (Cazabat, 2020). In pastoralist communities facing climate change, poorer families are increasingly marrying their girls into polygamous situations, exposing them to HIV/AIDS and other sexually transmitted infections (STIs) (Kagunda et al., 2024).

Climate is also driving other forms of child exploitation: by exacerbating poverty and displacement, leaving children vulnerable to trafficking. In the aftermath of a disaster, children may become separated from their parents or caregivers, amplifying these risks (UNICEF, 2023a). As climate change disrupts livelihoods and increases household poverty, families are more likely to pull their children out of school and put them to work to supplement household income.

Increased burden of care

Climate change brings an increased burden of care that can further drive women's anxiety and overwhelm: Gender norms in many societies lead to women shouldering a disproportionate burden of care. When climate stressors add to this burden—such as traveling further for water or caring for a malarial child—the increased workload and stress can result in burnout and chronic anxiety (Checkuri, Sood, and Campbell, 2024). Studies report that women's caregiving responsibilities are amplified by climate change (Stone, Blinn, and Spencer, 2022).

Female headed households: During disasters, women and girls are more likely to stay behind, leading to an increase in female-headed households, which often exhibit less resilience compared to male-headed ones (Kagunda et al., 2024). This reduced resilience is due to the pre-existing patriarchal structures that inhibit women's access to financial resources, land and decision-making structures, thereby impacting their adaptive capacity and longer-term resilience.

When parents are displaced and suddenly have no job, no right to work, and no land to farm, they can experience a significant loss of control, agency, and self-esteem, negatively impacting their caregiving capacity (Save the Children International, 2023).

The additional care burden in climate-impacted contexts creates yet another barrier to women's participation in community-level decision-making and actions to increase resilience (Stone, Blinn, and Spencer, 2022). This cycle of increased responsibilities and stress hinders women's ability to contribute to and benefit from community resilience efforts, exacerbating their vulnerability to climate impacts.

Community

Climate mobility & displacement

- Climate-driven displacement can lead to significant mental health issues, particularly amongst women and girls.
- Climate mobility also includes migration driven by climate-induced resource scarcity. This tends to be men migrating for work, leaving female headed households.
- The impact of climate displacement on children and adolescent's mental health can be acute and long-lasting and separation from other family members puts them at increased risk of SGBV and trafficking.

Impacts at the community level



Loss of traditional culture & social connectedness

- Displacement due to climate change forces families to leave ancestral lands, severing ties to their cultural roots and also to vital community networks of support.
- This can lead to a loss of cultural practices, languages and traditions, sense of identity loss and social fragmentation.
- Social cohesion is further threatened by climate-driven conflict.
- As primary caregivers and keepers of cultural traditions, women are particularly impacted by this.
- Connection to the land is another key factor that women in particular are impacted by when climate disasters force them from traditional farming and resource gathering practices.

Workplace vulnerabilities

- Extreme heat increases workplace vulnerabilities for women as heat stress slows the pace of work and exacerbates employer-employee relations, increasing women's risk of harassment and violence.
- Men's occupational exposure in outdoor industries puts them at increased risk of heat-related impacts and climate-sensitive diseases.
- Both men and women's role in disaster response and frontline healthcare means they are impacted by the additional burden of work resulting from climate impacts.

Disruptions to education

- Damage to school infrastructure from extreme weather events results in school closures and interruptions to learning.
- Girls are particularly vulnerable to these disruptions as they are often required to help mothers with the added burden of care that climate change brings, taking them out of school.
- Climate-driven impacts to household income mean children are taken out of school to work to contribute income. Boys in particular are at risk of being asked to assist with agricultural work.
- Girls' participation in school is impacted by menstrual hygiene challenges where climate disrupts WASH facilities. Girls also struggle to keep themselves cool where cultural norms mean they have to wear heavy restrictive clothing.

Climate mobility & displacement

mental health impacts of climate-driven displacement: Climate change drives resource scarcity and conflict over resources, both of which can result in displacement, often leading to long-term mental health issues, including PTSD (Corvalan et al., 2022). For these populations, emotional distress is directly related to current stresses and uncertainty about the future as well as past traumatic experiences (Save the Children International, 2023). Displacement is characterised by an acute sense of urgency and risk-taking and when people are on the move there is little time for MHPSS service provision. Displaced women and girls suffer more from PTSD, depression and anxiety than displaced men and non-displaced women (Cazabat, 2020).

Climate change disruptions to livelihoods forces men to migrate for work: For men, migration exposes them to unsafe working conditions, precarious legal statuses, or social isolation in urban centres or foreign countries – all of which are precursors for additional mental health burden. Climate-related mobility can be interwoven with other forms of movement, such as labour migration, migration for education or circular, seasonal or pendular migration; it can also intersect with parallel crises tied to movement, such as fragility and conflict. (International Data Alliance for Children on the Move, 2024). This makes it hard to measure as climate may not be the principal driver of the movement itself.

The impacts on children's mental health of displacement: For children the mental health impacts of climate-driven displacement are far-reaching, including symptoms of depression, anxiety, and other stress related disorders such as PTSD and school behavioural problems (UNICEF, 2024). Separation from family members during displacement is highly distressing, particularly for children and adolescents and it can have a negative impact on child development (Save the Children International, 2023).

Workplace vulnerabilities

Climate change drives gender-specific vulnerabilities in the workplace: Extreme heat is a particular concern for workplace vulnerability and the International Labour Organization estimates that by 2030, 2.2% of total working hours will be lost due to climate-related heat stress (ILO, 2021). It slows the pace of work and increases the need for comfort breaks which can put workers at additional risk of verbal and physical abuse from employers (Devex, 2024). Women and SGMs are particularly at risk of these increased levels of harassment. In many contexts, women also constitute the majority of frontline health workers, particularly nurses and midwives, so the added health burden from climate change impacts directly onto their workload and related mental health (Kivioja et al., 2023).

Men are also at specific risk due to their occupational exposure – for instance men that work in outdoor labour industries are at risk of heat-related impacts and climate-sensitive diseases, and therefore the related mental health impacts of these.

Loss of traditional culture & social connectedness

Displacement severs ties with ancestral lands: In the face of climate change communities face unprecedented challenges that strain social bonds and disrupt traditional ways of life. Displacement caused by climate change forces individuals and families to leave their ancestral lands, severing ties to their cultural roots and community networks. This displacement can lead to a loss of cultural practices, languages, and traditions that have been passed down through generations, as displaced populations struggle to maintain their heritage in new environments (UNESCO, 2023). The disruption of these cultural continuities often results in a sense of identity loss and social fragmentation. As primary caregivers and keepers of cultural traditions, women experience a profound loss of identity and community ties when they are uprooted from their ancestral lands (UNESCO, 2023).

Conflict eroding social cohesion: Resource scarcity, such as limited access to water, arable land, and food, often exacerbates tensions between different groups, undermining social cohesion. These conflicts can be particularly intense in regions where livelihoods are heavily dependent on agriculture and natural resources (IPCC, 2022).

Loss of heritage: Climate change also impacts the physical sites that hold cultural and historical significance. Rising sea levels and increased erosion threaten archaeological sites, historic buildings, and sacred landscapes. The loss of these tangible cultural heritage sites erodes a community's connection to its history and identity (UNESCO, 2023). Certain climate hazards can also change the way communities and individuals relate to nature and the land in which they live which in turn can have profound impacts on mental health (Pearce & Watkins, 2024). For women, who undertake the bulk of small-scale agricultural work, this disconnection from the land can be particularly acute.

Disruptions to education

Damage to school infrastructure resulting in school closure: Extreme weather events cause damage school infrastructure, leading to school closures and interruptions in learning. According to a report by the World Bank, over 400 million students globally have experienced school closures due to climate-related events since 2022 (Sabarwal et al., 2024). The impacts are gendered, and girls are particularly vulnerable to these disruptions (Nordic Consulting Group A/S (for Ministry of Foreign Affairs of Denmark), 2024) with climate-related events prevent at least 4 million girls in low- and lower-middle-income countries from completing their education (Sabarwal et al., 2024). Girls from communities impacted by displacement (whether they are themselves displaced or if they stay behind) miss school at higher rates than their male peers (International Data Alliance for Children on the Move, 2024). The added burden of care from climate change can lead to girls dropping out of school entirely (Porter, 2021). Additionally, the loss of educational opportunities disproportionately affects girls, as they are more likely to be kept at home for safety reasons during disasters.

Economic drivers linked to climate change impacting early entry to the workforce: Boys, while also affected, may face different challenges. In some cases, boys are expected to contribute to household income or assist with agricultural work, especially in rural areas (Sabarwal et al., 2024). This can lead to boys missing school or dropping out to support their families, which can limit their future opportunities and foster feelings of frustration, hopelessness, and a loss of identity.

Physiological differences impact education participation: Girls, and particularly adolescent girls, are impacted by specific physiological differences that can drive stress, anxiety and discomfort and ultimately lead to poorer participation in school. These include menstrual hygiene-related issues (see section on individual impacts) which are exacerbated by climate-related impacts to WASH infrastructure, and the ability of girls to keep themselves cool in extreme heat due to cultural norms around clothing in public.

Society

Disruptions to essential health and social services

- Health system disruptions include power outages, damage to facility buildings and WASH infrastructure as well as supply chain disruptions – all impacting on the availability, accessibility and quality of health services.
- Impacted health systems will struggle even more to respond to the unique health needs women and girls have at different life stages, including access to SRHR and MHPSS services.
- Climate change increases the disease burden on already overstretched services. It also impacts on economic growth, so governments have fewer available resources to address the increasing burden.
- MHPSS services are acutely impacted during extreme weather events and even more so because the base level of service provision is already low, particularly in low-income countries.
- Individuals with pre-existing mental health conditions are particularly at risk due to disruptions in treatment services and access to medication.
- Extreme weather events can significantly disrupt social protection services, including police, legal, and child protection systems, making it difficult to maintain effective protection and support for vulnerable populations.
- Children and adolescents, particularly girls, are at an increased risk of trafficking, exploitation and abuse during crises at these times so rely on these services.

Impacts at the societal level



Increased pressure and mental health impacts on frontline service providers

- Frontline staff can be significantly affected by the additional workload that climate change brings. As the burden of care increases, so too can their working environment deteriorate.
- Occupational health impacts such as physical hazards, burn out, discomfort, stress, fatigue, inability to cope and less efficiency for healthcare workers particularly during high temperatures.
- They may also have to deal first-hand with other people's trauma, grief, anger and loss, potentially at the same time as their own.

Disruptions to essential social services

Health system disruptions: Climate change significantly disrupts health systems and derails progress towards achieving universal health coverage (UHC).

Damage to health infrastructure & diminished quality of care: The increasing frequency and severity of extreme weather events strain health infrastructure and services. Hospitals and clinics may face power outages, damage to facility buildings and WASH infrastructure as well as supply chain disruptions, ultimately hindering their ability to provide quality care (WHO, 2023). This impacts on the availability, accessibility and quality of health services, which in many low-income contexts, are already lagging. Access to SRHR services is vital for women and girls – whether it is for family planning, maternal healthcare or treatment services for SGBV survivors.

Climate change increases the health burden on already overstretched services: climate change increases the burden of disease across a broad spectrum of areas including through increased injuries, prevalence of climate-sensitive diseases, water and food-borne diseases, pregnancy-related complications, malnutrition, respiratory conditions, and importantly the increase in the burden of mental health issues (WHO, 2023). The loss of livelihoods and displacement can also lead to increased poverty, further driving ill health, including common mental disorders (Lund et al., 2010), and increasing the burden on health services. Economic growth is also lower, resulting in fewer resources for governmental mental health service provision (Lawrance et al., 2021).

MHPSS disruptions: These disruptions are even more acute as there is already a huge gap between mental health need and service availability in many parts of the world. It is estimated that up to 50% of people with mental health disorders in high-resource settings and up to 90% of those in low-resource settings receive no treatment at all (Lawrance et al., 2021) and climate change only exacerbates this further. Individuals with pre-existing mental health conditions are at particular risk in climate disasters as their access to preventative and curative services and medication can be disrupted.

Other social protection service disruptions: Extreme weather events can significantly disrupt social protection services and damage public infrastructure related to services provided by the police, the legal system, and child protection systems, making it difficult to maintain effective protection and support for vulnerable populations.

Increased pressure and mental health impacts on service providers

Frontline staff, whether they are MHPSS service providers or broader health system employees or disaster relief workers, can be significantly affected by the additional workload that climate change brings. As the burden of care increases, so too can their working environment deteriorate. There is a gendered element to this which is important to note as there are different gender profiles of the various cadres of MHPSS service providers, with a skew towards a higher proportion of women providing services at the community and lower cadre levels compared to higher proportions of men in the more specialised cadres of service providers.

Tsakonas and colleagues recently published a rapid review of the impacts of climate change on the health system workforce and they reported occupational health impacts such as physical hazards, burn out, discomfort, stress, fatigue, inability to cope and less efficiency for healthcare workers particularly during high temperatures (Tsakonas et al., 2024). Health workforce may be required to continue working under damaged infrastructure, power outages and with limited resources.

They may also have to deal first-hand with other people's trauma, grief, anger and loss, potentially at the same time as their own. This strain can lead to burnout, mental health challenges, and physical exhaustion. Tsakonas and colleagues also highlighted the need to consider support for frontline worker's families if they are unable to leave for long periods of time. Caring for frontline responders must be embedded in our responses to climate events (Connecting Climate Minds, 2024b).

CASE STUDIES

CASE STUDY: MENTAL HEALTH IMPACTS OF CLIMATE CHANGE IN SOUTH-WEST SOMALIA

Southwest Somalia has a hot, semi-arid climate and Baidoa, the capital city, has been known as the breadbasket of Somalia due to its vital role in cereal production. However, the region has suffered from frequent and intense droughts, floods and years of protracted conflict. More than 4.3 million people in Somalia are acutely food insecure, over 6 million are water insecure and close to 4 million are internally displaced. Displacement in Somalia is increasingly climate-driven, with 75% of all new displacements being climate-related.

The Bay Women's Association Network (BAYWAN) is a non-profit, non-partisan organisation. Founded in 2018 BAYWAN is committed to fostering socio-economic and socio-political empowerment across the region. BAYWAN reports the following issues occurring at the intersection between MHPSS, climate and gender:

Displacement due to climate change increases women and children's risk of adverse mental health outcomes. They cited an example of a recent trauma circle they held with women from Baidoa where a woman was highly distressed because she'd been forced to leave one of her five children behind, and she hadn't been able to locate that child since.

Gendered vulnerabilities within the IDP camps: Women face a considerable risk of SGBV within the camps, especially adolescent girls. Women report having to wait until after dark to do their toileting due to lack of privacy, but this then places them at increased risk of SGBV. As one BAYWAN respondent said: "at times you will find our safehouse full – we just can't accommodate everybody".

Stress over shelter availability: BAYWAN reports that the semi-permanent structures within the IDP camps (as well as outside of the camps), are particularly vulnerable to rain and they are frequently washed away during rainstorms. This adds additional stress and worry to people's mental load, especially for the women headed households.

Early child marriage: Families are resorting to marrying their girls off at an early age as a coping strategy to supplement income and reduce their household overhead costs (they reported families in the Somali courts being paid by Al-Shabaab in exchange for their daughters). BAYWAN reports that domestic violence and sexual assault is common for the girls subjected to early child marriage.

Child labour: Children as young as 10/11 years are going out to work rather than going to school. "People are thinking - if you're ten or eleven then you're old enough to go out and help your mum with the income for the family". They say child labour is very high in Baidoa urban centre compared to other districts. This is all linked to food and water insecurity.

Food and water insecurity: During times of drought the local communities suffer intense food insecurity. BAYWAN report that it is not uncommon on household visits to find households that haven't had food the whole day: "You find the kids are all around the mother asking for food but there isn't any. That is where the pain and trauma sits, with the mother."

Suicide: Particularly during the drought seasons, if someone loses their livelihood, BAYWAN report people taking their own lives. This mostly happens to men, often if they are the head of the household and feel the responsibility lies with them.

CASE STUDY: PERCEPTIONS OF CLIMATE CHANGE AMONGST YOUNG PEOPLE IN TANZANIA

Sophia Derrick is a PhD student from the University of Tanzania undertaking research on perceptions of climate change amongst young people. Her research is funded by the University of Copenhagen. Having completed data collection, Sophia is going into the analysis and writing phase of her PhD, and she was willing to share some of her key observations to date from engaging with her study population (NB: these are just observations at this stage as she is yet to complete data analysis).

There is a difference in the way young males and young females perceive climate change: young men in the two communities she studied approach the issues around climate change principally in economic terms and their narratives are information-heavy and based on established knowledge of climate change processes. In contrast, she observed the dialogue of the young women focuses much more on social issues, with narratives largely centring on ideas of connectedness. This creates more stress and worry for women and puts them at increased risk of exposure to climate hazards. Both men and women discuss the impacts on traditional livelihoods and customs.

There is recognition that women are more impacted than men in their communities: whilst it is predominantly the women who recognise this, there were men who also admit this. Within the context of these two rural Tanzanian coastal communities, women undertake more of the work than men, especially in farming activities and within the context of the home. Women will be the ones rushing to move valuable household items ahead of floods and there were stories of women getting distressed by the loss of crops.

There are clear impacts from climate change on young people's learning and participation in school as well as their mental health and wellbeing: Sophia reported children missing school due to flooding impacts. Access routes are often blocked by floods and there were incidents where students had been attacked by crocodiles on the way to school where rivers had flooded, and this created fear and panic amongst fellow students. After heavy rainfall children are often assigned a lot of tasks to help their parents in the fields as this is a time when a lot of farming takes place. Children reported feeling distracted from school during floods as they know their mothers will be pre-occupied with moving things to protect them from damage.

There is an opportunity for integrating climate, MHPSS and gender issues into Environmental Change Clubs in Tanzanian schools: Tanzanian education directives encourage schools to run environmental clubs as part of their extra-curricular activities and Sophia found examples of both active as well as passive clubs. She indicated that this is an opportunity for integrating education and awareness raising around climate change and its impacts, and specifically information on the gendered impacts on mental health and wellbeing.

2. RELEVANT GLOBAL FRAMEWORKS AND CURRENT PROGRAMMING

This Chapter provides an overview of key global frameworks and guidance, highlighting potential entry points as well as evidence-based interventions, potential synergies from integrated action, and finally an overview of the main gaps in programming at the intersection between MHPSS, climate change and gender equality.

2.1. Key global frameworks / tools / approaches

This section provides an overview of the key global frameworks, tools and approaches relevant to this intersection, highlighting where the important entry points are going forwards. Below is a list of the key frameworks of relevance. More detailed descriptions of each framework and the key points of intersection are presented in Annex 2. These descriptions are important reference points for stakeholders from one sector, looking to engage at the intersection as they provide intelligence to support strategic integration with the other sectors.

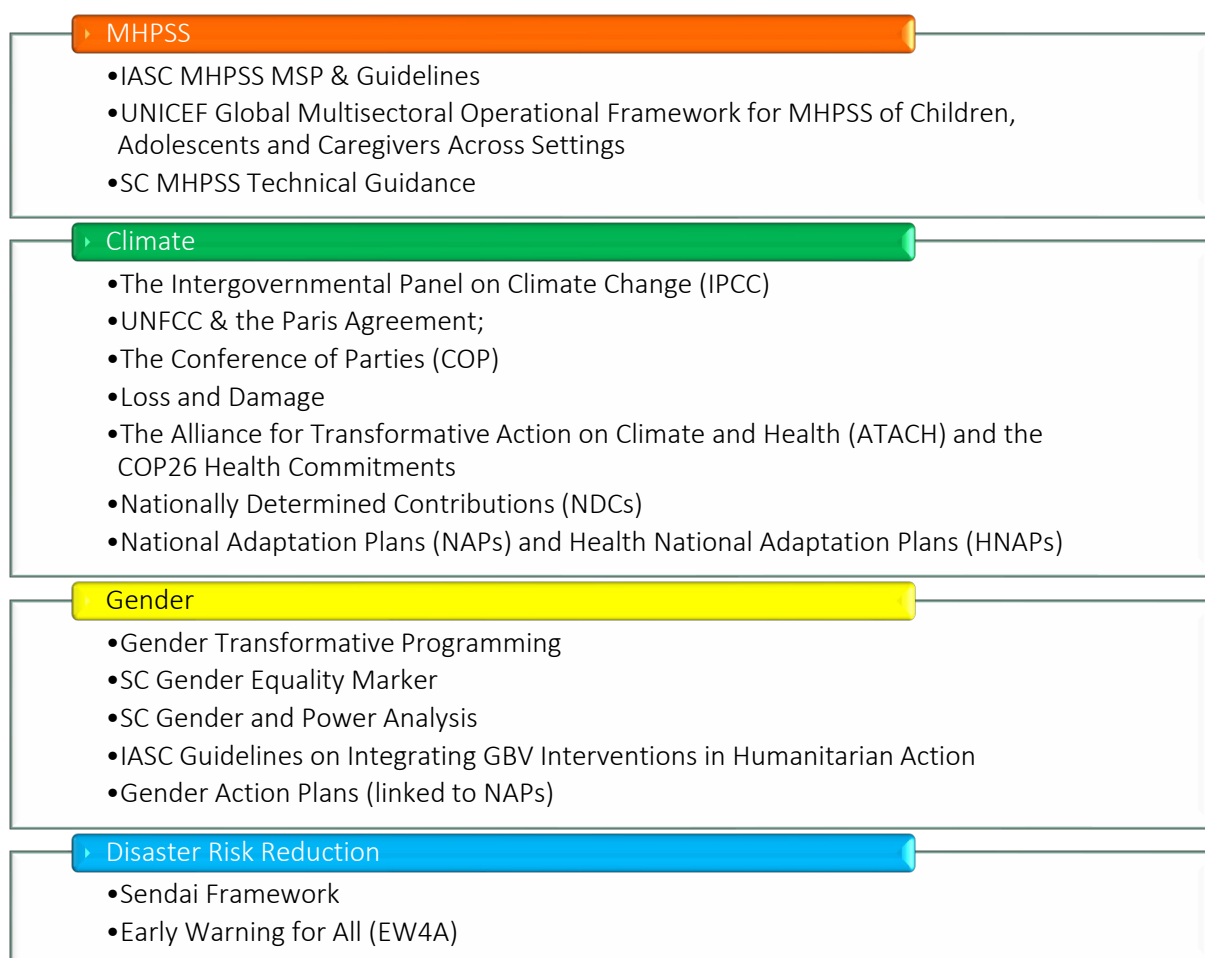


Figure 8: Key global frameworks relevant to the intersection (see Annex 2 for detailed descriptions)

As these three sectors are still relatively siloed, analysis of the key entry points is provided by sector but highlighting points of intersection with the other two sectors.

MHPSS Frameworks

The key global programming frameworks relevant to MHPSS in humanitarian settings have been developed by the Inter-Agency Standing Committee (IASC), established in 1992, following a UN General

Assembly resolution to strengthen humanitarian coordination. The evolution of these guidelines began in 2007 when the first **IASC Guidelines on MHPSS in Emergency Settings** was published, providing a comprehensive framework for addressing mental health and psychosocial needs in emergencies. This was followed by the development of the **MHPSS MSP**, which outlined essential activities for meeting the immediate needs of emergency-affected populations. To ensure effective implementation and evaluation, the **Common Monitoring and Evaluation Framework for MHPSS Programmes in Emergency Settings** was introduced in 2017, offering standardised tools and indicators. The framework was updated in 2021 to include means of verification (MoV), enhancing the ability to measure the impact of MHPSS programmes. This M&E framework and its relevance to the intersection of MHPSS, climate and gender is explored further in Section 5. Other frameworks also relevant to this intersection include the **UNICEF Global Multisectoral Operational Framework for MHPSS of Children, Adolescents and Caregivers Across Settings** and the **SC MHPSS Technical Guidance**.

Gender integration within MHPSS frameworks

All of the frameworks reviewed were developed with rights-based, inclusive principles and approaches at their core that stipulate non-discrimination and pro-active inclusion. They highlight gender considerations throughout, the UNICEF Multisectoral Operational Framework highlights gender norms as part of the enabling environment, and the IASC MSP guidance encourages humanitarian actors to challenge harmful socio-cultural norms through inclusion of activities targeting gender-related barriers to access and protection issues.

Climate integration within MHPSS frameworks

Whilst the IASC documents don't specifically mention climate change per se, they do recognise natural disasters as a type of humanitarian emergency requiring MHPSS programming and many of the direct and indirect impacts of climate change are covered in the activities and considerations. The UNICEF Global Multisectoral Operational Framework does cite intensifying natural disasters and climate change as determinants of mental health and psychosocial wellbeing, and they are included in the Theory of Change and related programming guidance. Similarly, the SC MHPSS Guidance notes natural disasters as a driver of MHPSS and climate change is mentioned in relation to the broader SC Strategy.

Potential entry points for action on the MHPSS/climate/gender equality intersection

There is scope for increased recognition and a more nuanced exploration of the different forms that climate change impacts to mental health and wellbeing can take. For instance, although natural disasters is a relatively broad category, this could be more clearly linked to climate change to ensure inclusion of slow onset climate events as well as extreme weather events. In providing a more nuanced understanding of the climate-MHPSS intersection, there would also be an opportunity to include the gender lens, drawing out the intersectional dynamics presented in this document and highlighting areas for action specific to the intersection.

A potential starting point for this process could be for SC to lead by example, by drafting an addendum or worked case study linked to their guidance document that draws on the findings of this report. This could specifically highlight gender transformative actions relevant to the intersection.

Climate Frameworks

Global Climate Infrastructure

The key overarching structural components of the global climate infrastructure include the following (please refer to Annex 2 for further details):

- **The Intergovernmental Panel on Climate Change (IPCC)** which is a United Nations body responsible for assessing the science related to climate change.

- **The United Nations Framework Convention on Climate Change (UNFCCC)** which is an international environmental treaty adopted in 1992 to stabilise GHG concentrations in the atmosphere at a level that prevents dangerous human interference with the climate system. Under the UNFCCC, key structures include:
 - **The Conference of Parties (COP)** which is the supreme decision-making body of the UNFCCC.
 - **The Paris Agreement**, adopted in 2015, which is a legally binding international treaty under the UNFCCC aiming to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius.

Other key components of the global climate infrastructure that are relevant to this report include:

- The concept of **Loss and Damage** which refers to the negative consequences of climate change that cannot be avoided through mitigation or adaptation efforts. At COP27 in 2022, a Loss and Damage Fund was established however it remains to be fully operationalised.
- **The COP26 Health Commitments** were a set of pledges made by over 90 countries to address the health impacts of climate change. These commitments include developing climate-resilient health systems, conducting vulnerability and adaptation (V&A) assessments, and setting targets for reducing GHG emissions in the health sector.
- **The Alliance for Transformative Action on Climate and Health (ATACH)** is a global initiative led by WHO which was launched during COP26 to drive action around achieving the COP26 Health Commitments. It is a key global platform for the climate and health community.

National Level Policies and Plans

At the national level there are several official policy and planning mechanisms that are central to coordinated climate action. These include:

- **Nationally Determined Contributions** are climate action plans submitted by countries under the Paris Agreement, detailing their efforts to reduce national emissions.
- **National Adaptation Plans** are strategic frameworks developed by countries to address the impacts of climate change. These plans outline priority actions, policies, and programmes to enhance resilience and reduce vulnerability to climate change.
- **Health National Adaptation Plans** are strategic frameworks developed by countries to address the health impacts of climate change. These plans outline priority actions aimed at enhancing public health resilience and reducing vulnerability to climate-related risks.

MHPSS within global and national climate frameworks

The IPCC reports have increasingly recognized the impact of climate change on mental health and wellbeing but until recently mental health was largely absent from high-level climate policy discourse. This changed at COP28 in 2023, where health (and mental health as a component of this) was included as part of the first ever Health Day at a COP, representing an important entry point going forward.

In relation to L&D, both economic and non-economic impacts relate to mental health: economic L&D drives poverty and also negative coping mechanisms that can have harmful repercussions; and NELD includes impacts on infrastructure, livelihoods, biodiversity, cultural heritage, and human health. MHPSS itself is counted as an NELD sub-category to the health category for individuals (see diagram in Annex) however, other aspects of NELDs such as loss of cultural heritage and biodiversity also have a significant impact on mental health and wellbeing, and these are often missed. Invisible impacts often escape the attention of policymakers and comprehensive quantification of these impacts is imperative.

At the national level, mental health and wellbeing should be included as a sub-category to health within NDCs, however a 2023 review found that only 3% of NDCs mentioned mental health compared to 28% that included vector-borne diseases. This is a stark reality, with a similar pattern observed within the NAP processes, providing a clear advocacy point to leverage increased integration.

Gender equality within global and national climate frameworks

Progress on gender by the IPCC has seen the Gender Policy and Implementation Plan and a corresponding Gender Action Team (GAT), however overall, despite decades of efforts to integrate gender considerations within the UNFCCC, progress has been slow. Emphasis remains mainly on achieving a gender balance in climate governance, rather than exploring themes such as gender responsiveness and gender equality (van Daalen et al., 2024). Although the gendered impacts of L&D are recognised within L&D discourse, there remains much to be done to ensure these are not overlooked during the operationalisation of the L&D Fund.

At the national level, important progress has been made in improving gender responsiveness and inclusiveness of NDCs, however whilst gender may be referenced, few of the current plans consider gender in the institutional arrangements for adaptation (Kivioja et al., 2023).

Potential entry points for action on the MHPSS/climate/gender equality intersection

There is a window of opportunity to advocate for comprehensive inclusion of MHPSS impacts under the new L&D Fund. Quantification of the less visible components of L&D, such as mental health, is vital to this. A methodology for doing this has been developed by Bharadwaj and colleagues called Comprehensive Climate Impact Quantification (C-CIQ) – please see section 5 for further information.

The Annual COPs are an increasingly important and accessible opportunity for the gender and MHPSS sectors to profile specific causes and foster multi-sectoral collaboration. COP30 will be where countries submit their revised NDCs, so this is an important opportunity to advocate for more integrated approaches relevant to this intersection. The advocacy point noted above, highlighting that only 3% of NDCs mentioned mental health should be central to this. NDCs are mandated to report on co-benefits likely to result from mitigation actions across sectors and so the mental health co-benefits should be included and quantified where possible.

NAP processes, including HNAP processes, need better MHPSS and gender representation, particularly within institutional arrangements to ensure implementation reflects policy and plans. V&A assessments form the evidence base upon which HNAPs should be developed. This is a key tool for ensuring both a gender transformational approach as well as leveraging greater attention and resources towards addressing the impacts of climate change on mental health and wellbeing in HNAPs. See section 4 for further information on health-focused V&A assessments.

Gender Equality Frameworks

Central to all the gender-related frameworks presented in Annex 2 is the concept of **gender transformative programming**. This aims to address and redress gender inequalities by challenging and changing harmful gender norms, roles, and power dynamics. **SC's Gender Equality Marker** tool is an adaptation of the widely used IASC Gender Marker and it is based on the gender continuum. It is used as a primary tool to measure the gender sensitivity and transformative potential of their program proposals. **SC's GAP Analysis Tool** is designed to examine, understand, and address discrimination and inequality that prevent children, their families, and communities from claiming their full and equal rights (see Section 5 for further details). The **IASC Guidelines on Integrating Gender-based Violence Interventions in Humanitarian Action** provide sector-specific guidance around how to prevent and respond to GBV in humanitarian emergencies.

MHPSS within gender equality frameworks

UNICEF's Technical Note on Gender in Adolescent Mental Health provides examples of MHPSS programming that is gender transformational (some detailed provided in Annex 2 of this report). The SC GEM and GAP Analysis tool are both designed to be used across all SC programme areas, and the

IASC GBV guidelines include a section explaining MHPSS and each thematic section includes core MHPSS considerations.

Climate within gender equality frameworks

As noted above, the SC GEM and the SC GAP Analysis tool can be used across all SC programme areas however there are no examples of it being used on an integrated MHPSS/climate intervention to ensure the gender focus so this could be a potential avenue to explore.

UNICEF Gender Continuum for Climate Action is an example where concrete examples of gender transformative action on climate are presented. Although climate change is not referenced within the IASC GBV guidelines as a driver of GBV specifically, the various thematic areas align with many of the direct impacts of climate change relevant to this intersection.

Potential entry points for action on the MHPSS/climate/gender equality intersection

In order to drive further use of gender transformative approaches at this intersection there is a need to better illustrate examples of activities or broader programming approaches that are truly gender transformational. As the SC GEM and the SC GAP Analysis tool are both intended to be used across programme areas, there could be potential to produce worked examples of them being used on an integrated MHPSS/climate intervention.

Disaster Risk Reduction Frameworks

The Sendai Framework for Disaster Risk Reduction 2015-2030 is a global agreement that aims to substantially reduce disaster risk and losses in lives, livelihoods, and health by promoting a more resilient world. **Early Warning for All** initiative aims to ensure that everyone on earth is protected from hazardous weather, water, or climate events through lifesaving EWS by the end of 2027.

Climate change within DRR Frameworks

Climate change and environmental degradation are recognized by the Sendai Framework as being among the many drivers of disaster risk.

MHPSS within DRR Frameworks

MHPSS is mentioned briefly in priority four of the Sendai Framework however there is a strong argument that it should be fed through to all priority areas. In 2021 The IASC MHPSS Reference Group (RG) produced a technical note linking DRR and MHPSS to support the delivery of a priority set of actions to reduce suffering and improve mental health and psychosocial well-being across and within DRR activities (IASC, 2021). The document provides actions linking MHPSS and DRR for every outcome area of the Sendai Framework. It also provides guidance on indicators which has been explored later in this report in section 4.

Gender equality within DRR Frameworks

Although women's unique vulnerabilities are identified within the Sendai Framework and the inclusion of women and girls in disaster policy and programming is promoted, the approaches do not address fundamental power imbalances and barriers that prevent meaningful participation. As a result, women, girls and SGM individuals are still not fully included in DRR decision-making. The IASC technical note linking DRR and MHPSS has a section on inclusivity in which the need for gender inclusive strategies is highlighted.

Potential entry points for action on the MHPSS/climate/gender equality intersection

The next iteration of the Sendai Framework is due in 2030 so there is an advocacy opportunity to leverage greater profile of MHPSS, and specifically the intersection between MHPSS, climate and gender equality, within the detail of the framework including within its indicators.

2.2. Evidence-based interventions & approaches

The diagram below provides an overview of the key programming areas relevant to this intersection, highlighting its multi-sectoral breadth and the range of stakeholders from different disciplines that need to be convened for collaborative action.

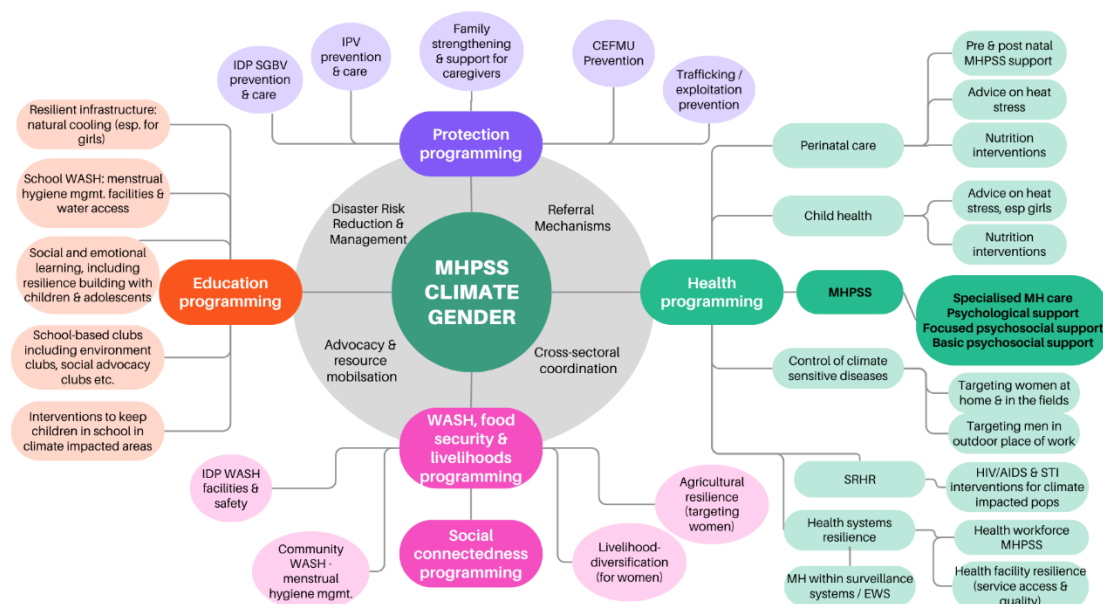


Figure 9: Key Programme Areas - for integrated action

The section below provides a snapshot of some of the evidence-based interventions suggested in the literature and through discussions with key informants for this analysis. It is by no means exhaustive or comprehensive, but it provides a starting point. It is structured aligned to the socio-ecological model.

Individuals

Nutrition:

- Public health interventions that improve rates of anaemia in women in a changing climate (Checkuri et al., 2024)
- Monitoring of weight, surveying of relationship quality for domestic violence and emotional abuse and extended postnatal vitamin prescriptions are points of care where the nutritional impacts of climate change might be additionally mitigated. (Rothschild & Haase, 2023)

Displacement:

- For women and children on the move consider MHPSS intervention options that don't require follow-up. Psycho-therapeutic treatments should only be offered if follow-up is possible (Save the Children International, 2023)

Social protection:

- Social protection interventions, especially child protection, for key vulnerable populations (such as women, children and SGM individuals) – for example targeted interventions providing life skills for vulnerable populations or CEFMU prevention interventions for girls at risk of CEFMU.

MHPSS approaches:

- Harnessing already proven individual and group therapy strategies (Lawrance et al., 2021)

- Basic psychosocial support (e.g. PFA) rather than a one-off psychological debriefing after exposure to an adverse, terrifying, or life-threatening event (IASC, 2022)
- To encourage post traumatic growth: capture experiences of positive change associated with improvements in psychological health that occurs as a result of traumatic stressful life events. Interventions should seek to mitigate distress while also taking steps to develop healing, growth and resilience as adolescents adapt.
- Best practice for addressing youth adversity and trauma experience include establishing a sense of safety, security, and protection; providing psychoeducation to recognise, validate, and normalise the impacts of trauma; developing adaptive coping and communication skills; facilitating acknowledgment of trauma, to counter avoidance; facilitating trauma experience integration and fostering a sense of empowerment in the face of trauma (Israni et al., 2024)
- Educating patients on the heat-related side effects of psychotropic medications can improve outcomes for all genders (Checkuri, Sood, and Campbell, 2024).

Early Childhood Development:

- Interventions that capitalise on the crucial window of opportunity in the first five years of life when children are most ready to acquire new skills and adapt. MHPSS interventions may include parenting/mother-baby groups, infant stimulation and feeding programs.

Strengthening anticipatory capacity

- Interventions that support anticipatory capacity and reduce negative coping mechanisms are key to bolstering agency and adaptive capacity. These interventions could include climate proofing of housing or schools, cash/voucher assistance or community savings schemes, WASH interventions etc. (Easton-Calabria, 2022).

Building individual resilience:

- Interventions that focus on building individual resilience involve cultivating emotional strength, adaptability, and coping strategies to navigate challenges and recover from setbacks.

Social prescribing:

- Social prescribing of activities that enhance environmental, physical and emotional health (Lawrance et al., 2021). This involves link workers facilitating social engagement with peers of a similar age prioritising child-centric principles and involving children in the co-design of their therapeutic experiences (the UK National Health Service (NHS) has integrated this successfully for adults' mental health) (Zangerl et al., 2024)

Connection to climate action

- Make people suffering from climate anxiety aware of the steps being taken to keep them safe/protected to mitigate some of their anxiety
- Facilitate connection and coalition-building to foster peer support and reduce isolation (Israni et al., 2024)

Interpersonal: Parents & carers

Focussing on families (Lawrance et al., 2021)

- Interventions also need to support the health and well-being of caregivers, as detriments to their physical health or mental health, pose risks to child mental health, care, development and protection (UNICEF, 2022a)
- Family, multifamily, and group interventions that include psychoeducation, skills training, emotional regulation strategies, play, and mind-body exercises (Rothschild & Haase, 2023)

Communities

Safe spaces

- Accessible safe spaces provide a non-judgmental environment where individuals can express their feelings and experiences without fear of rejection or criticism (Lawrance et al., 2021). They are important inclusive spaces for community-building and for supporting individuals recovering from traumatic experiences (such as SGBV). Within the climate context they can also provide an inclusive space for ensuring vulnerable populations are involved in climate action.

Economic interventions

- Establishing insurance schemes, both ones that cover housing and assets as well as ones that cover health insurance (Zangerl et al., 2024)
- Diversified income-generating projects that boost the income of women to ensure economic empowerment (Kagunda et al., 2024)

Community engagement / social connection

- Positioning people affected as agents of change. This strategy recognises people affected by climate events as active participants and leaders rather than passive recipients (Corvalan et al., 2022)
- Religion has a role to play in some societies – strengthening community bonds (Key informant)
- Strengthening community networks through activities that facilitate isolated people to meet one another and generate mutual support. (Nahar et al., 2014)
- Comprehensive displacement programming that focuses on providing support, resources, and sustainable solutions for individuals and communities forced to relocate due to climate change (Save the Children International, 2023)

Education / Schools:

- Investments in air conditioning/natural cooling in school (Checkuri et al., 2024)
- Interventions to keep children, particularly girls, in school, and out of CEFMU.
- School-based environmental clubs

Community-based adaptation and anticipatory action planning:

- Initiatives strengthening adaptation capacity for communities, such as climate resilient agricultural methods, climate proofing of infrastructure and community based EWS (Easton-Calabria, 2022)

Society: service providers & humanitarian actors

Caring for responders (Connecting Climate Minds, 2024b)

Training and continual professional development

- Ensure health professional training curricula includes an overview of the impacts of climate on mental health for different population groups (Ha, 2024; Lawrance et al., 2021). This should include awareness of the full range of impacts of the MHPSS, climate and gender equality intersection – for instance ensuring awareness of heat impacts on mental health in those with pre-existing mental illnesses (Lawrance et al., 2021) or being aware of localised infectious disease patterns and the gendered impacts on mental health (Rothschild & Haase, 2023).
- Expand specialised programs to equip mental health professionals, medical professionals, therapists and counsellors with climate-awareness training (Connecting Climate Minds, 2024b), ensuring the gender focus.
- Train key community figures such as teachers and religious leaders (Pearce & Watkins, 2024), women leaders and other community leaders (Nahar et al., 2014), as well as traditional and faith healers (Ha, 2024)
- Train organisations to talk openly and name issues face-on and recognise the unique experience of each individual (Key Informant)

- Ensure all actors working with populations affected by climate change are trained in referral pathways for MHPSS including how to capture reporting on the referrals (Key Informant)

Climate action planning:

- It is important to move beyond vulnerability with considering the gendered impacts of climate change. We need to proactively empower women, girls, boys and SGMs through climate action. (Clements, 2024)
- Plans that address heat exposure to pregnant people are vital, particularly in maternity wards (Checkuri et al., 2024)
- Simultaneously targeting food insecurity, while prioritising gender equality and the empowerment of women and girls as key agricultural contributors and nutritional champions, is essential for supporting positive mental health outcomes globally. (Checkuri et al., 2024)
- Climate policies and actions should be responsive to gender power structures and social constructs, recognize and respond to the needs, perspectives, and rights of women and men, and enhance and protect women's human rights.
- Advocacy-based interventions at the national and global levels need to target the world's top GHG emitters to push for increased mitigation.

Early warning systems:

- HNAPs that include EWS are effective for mitigating the impacts of climate change (IPCC, 2023). Impact-based forecasting, which is weather forecasting plus communication on the potential impacts of weather events is more effective than EWS just reporting upcoming weather events. This communication needs to be designed to reach women, girls and SGM individuals in particular and to include specifics on potential mental health impacts and adaptation strategies for incoming weather systems.

Surveillance and monitoring:

- Effective adaptation options for reducing mental health risks under climate change include improving surveillance and access to mental health care, and monitoring of psychosocial impacts from extreme weather events (high confidence). (IPCC, 2023)
- Inclusion of mental health in non-communicable disease surveillance (Zangerl et al., 2024)

CASE STUDY: IMPROVING MENTAL HEALTH AND WELLBEING OF WOMEN SMALLHOLDER FARMERS IN KENYA

Agripsych Beam Ltd is a Kenyan Healthtech company that uses mobile technology to enhance access to mental health services for smallholder farmers affected by climate change. Their focus is to ensure that women smallholder farmers have a mental wellbeing safety net after crop or livestock loss or devastation of their agriculture enterprise as a result of climate change.

The project is led by a clinical psychologist. They provide individual and group therapy to women smallholder farmers to help them with mental health challenges caused by climate change. They do this through two key strategies:

- 1) Pre-recorded and pre-paid therapy calls on a weekly basis, offering access to specialist free mental health advice that would otherwise not be accessible or affordable for this population group. They plan to reach millions of smallholder farmers in Kenya with this service in the coming years.
- 2) Training of para-therapists: Para-therapists/ community-based therapists are the first people to interact with smallholder farmers in rural areas in the Embu Community. They therefore train community health champions to identify mental health issues for appropriate referral and management.

<https://hub.connectingclimateminds.org/research-and-action/case-studies/35>

2.3. Potential Synergies

“Psychosocial adaptation to climate change has been defined as enhancing, or supporting, the mental health and psychosocial well-being and well-being of individuals and communities so that they can cope and thrive in a changing climate, thereby increasing resilience to future impacts”

(J. L. Augustinavicius et al., 2021)

The mental health benefits of collective climate action

Engaging in climate action can significantly improve mental health by fostering a sense of purpose, community, and empowerment, while also mitigating the anxiety and stress associated with climate-related events.

Synergies, or positive outcomes that result from a specific action

or policy, beyond its primary objective are often termed as co-benefits. Within the climate sector, this is an important concept that stakeholders are encouraged to capture in their reporting and measurement so as to strengthen the argument for climate action and investment. Within the frame of this analysis, co-benefits might relate to win-win opportunities for improving mental health and emotional wellbeing associated with taking actions to reduce GHG emissions and adapt to a warming climate. (Lawrance et al., 2021). Some examples of these have been fed through into the narrative below to illustrate where they sit on the socio-ecological model.

A 2019 scoping review by Hayes and colleagues identified eleven factors key to the ability to adapt to the mental health impacts of climate change. These include social capital; sense of community; government assistance; access to resources; community preparedness; intersectoral/transdisciplinary collaboration; vulnerability and adaptation assessments; communication and outreach; mental health literacy; and culturally relevant resources (Hayes et al., 2019). Whilst this review focused on Canada, it is a starting point for further research in lower income contexts.

Individual

Post-traumatic growth: PTG is a psychological concept coined by Tedeschi and Calhoun referring to the positive psychological change experienced as a result of the struggle with highly challenging life circumstances or traumatic events. Unlike resilience, which involves bouncing back to a previous state of functioning, PTG represents an improvement in one's life beyond the pre-trauma level of functioning. Individuals experiencing PTG often report a deeper appreciation for life, enhanced personal strength, improved relationships, greater sense of purpose, and a shift in priorities. (Psychology Today, n.d.). Augustinavicius and colleagues reports that it has been documented in the aftermath of a variety of extreme weather events such as storms, floods, wildfires and droughts (J. L. Augustinavicius et al., 2021). Female gender has been shown to be a factor associated with higher PTG – Vishnevsky and colleagues indicate that women report more PTG growth than men (Vishnevsky et al., 2010). It is worth noting though that the evidence base on PTG in LMIC contexts is weak and should be further explored.

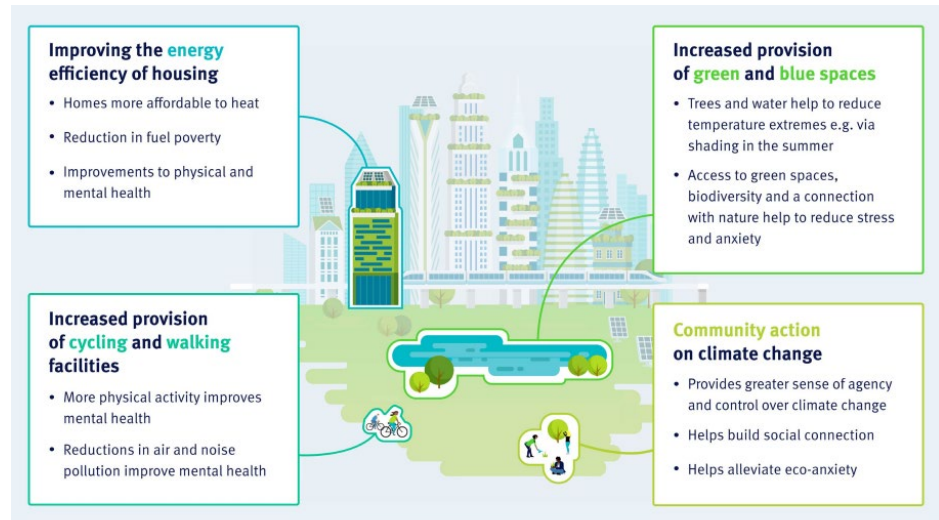


Figure 8: Examples of the co-benefits of climate action for mental health. These include benefits of improving the energy efficiency of houses on reducing carbon emissions, making homes more affordable to heat, reducing fuel poverty and improving physical and mental health.

Climate action's role in reducing climate anxiety: Engagement in pro-environmental action is one of the most widely advocated strategies for alleviating climate anxiety however Ogunbode and colleagues undertook an analysis that showed that feelings about climate change more readily translate to pro-environmental action in richer countries and that in countries of the Global South, people may be unable to engage in climate action due to facing financial or political barriers, having insufficient knowledge, or simply lacking opportunities irrespective of how they feel about climate change (Ogunbode et al., 2022). More research is therefore needed to unpick this relationship in humanitarian contexts.

Community Benefits of active transport: Active transport, such as walking and cycling, promotes physical health, reduces GHG emissions, improves air quality, and fosters stronger community connections by encouraging more face-to-face interactions (S. Clayton et al., 2017).

Creating 'green' and 'blue' spaces: i.e. incorporating plants, trees, ponds and waterways in urban areas - is an evidence-based climate mitigation approach to limit increases in GHGs. It also helps to reduce the urban heat island effect associated and so is important in reducing extreme heat in cities. This intervention is also beneficial to mental health and wellbeing for communities with access to these spaces and it has been shown to reduce psychological distress and depression symptoms and increase happiness and wellbeing (Lawrance et al., 2021).

Other NBS: NBS involve using natural processes and ecosystems to address environmental challenges, such as restoring wetlands to reduce flood risks and planting trees to improve air quality. In addition to the principal climate mitigation and adaptation outcomes, these NBS interventions can also foster increased FSL diversification, better nutrition and bring about increased community cohesion – all outcomes that have a positive knock-on effect to mental health and wellbeing (Romanello et al., 2024).

NBS can also be a key strategy for driving women's economic empowerment through challenging traditional gender norms, women can gain access to resources, income, and decision-making roles. This empowerment can lead to improved livelihoods, increased resilience to climate impacts, and enhanced social status within their communities (Plan International Kenya, n.d.).

Society

Social connection: engaging in climate action can build social connections by bringing individuals and communities together with a shared purpose. These activities encourage people to interact, share ideas, and build networks, strengthening community bonds and creating lasting relationships based on common values and goals. Through collective efforts, individuals not only contribute to a healthier environment but also create a supportive and connected community (S. Clayton et al., 2017).

Reduction in the burden of mental ill health: widespread, effective climate action that targets the most vulnerable and promotes resilience at all levels, including system-level resilience for essential social services, would undoubtedly result in a significant reduction in the burden of mental ill health.

Promoting innovative ideas: through bringing the three sectors closer together, there will naturally be a dynamic mixing of ideas and practices which can result in innovation. It also provides opportunities to 'piggy-back' on existing programming to trial novel ideas and approaches.

CASE STUDY: SOMALI YOUTH ADVOCACY ON CLIMATE ACTION

Zahra, a 19-year-old from Somalia, has been dedicated to working with Somali children and young people (YPs) for over 5 years now. Zahra is a member of the Adolescent & Youth Advisory Group (AYAG) for Save the Children Denmark's global Shifting the Power Programme.

Zahra's primary focus is on raising awareness about climate change and education, especially encouraging young girls to return to school. Zahra has just returned from COP29 in Baku as part of the official Somali Delegation, alongside the President of Somalia. She described the event as a busy global meeting place but noted that young people often cannot access higher-level discussions. Despite this, she gained valuable experience and engaged in beneficial meetings with individuals from various fields. The main message she wanted to convey to COP29 was the urgent need for action over mere discussions about policies and rules.

Zahra highlighted the severe impacts of climate change on Somalia, including droughts and flooding that disrupt farming, affect young people's ability to focus when at school, and lead to malnutrition and health issues. She pointed out that the lack of hygiene and nutrition exacerbates daily living conditions, leading to demoralisation and loss of hope among young people. She also stressed how young people are heavily impacted by how their parents themselves are coping and the impact that witnessing destruction or loss from climate change can have on young people.

She discussed the challenges faced by young people in education, such as hot classrooms, lack of access to clean water at school, and how sudden displacement disrupts children's schooling. Zahra shared a specific example of a young girl with whom she went to school in Mogadishu, who had to leave school to work and support her family due to drought-induced economic hardship.

Zahra noted that while pressure on girls to stay at home is decreasing, challenges remain. She emphasised that young people react differently to problems, with boys often seeking material solutions while girls face more household responsibilities. Conflicts over resources, such as water, can lead to violence, further complicating the situation.

Zahra emphasised the importance of support and collective action to raise awareness and secure funding to address these issues, harnessing the energy and fresh perspectives of young people. She identified the following key priorities: educating people about climate change, increasing awareness, and securing government support and financing. She expressed a strong desire for collective action, stressing that young people are the future leaders and need to be empowered to take on these challenges. Zahra concluded with a call for more significant efforts and collaboration to overcome the problems faced by her community, saying she found the lack of action to be immoral.

2.4. Gaps in programming

Overarching

Global mental health Burden: Even without climate change, there is a significant gap between mental health demand and supply. The median number of mental health workers is low at 13 per 100,000 people, and only 2% of government health budgets are allocated to mental health (World Health Organization, 2021a).

Needs assessment and analysis

Intersectionality is not routinely addressed: Intersectionality is not adequately accounted for; a GAP analysis should investigate the forms of inequality significant to specific project sites and communities (Bywater et al., 2021). Intersectional analyses also need to be multi-levelled to grasp the true dynamics of power relations (Kaijser & Kronsell, 2014).

Insufficient focus on the gendered mental health impacts in climate risk assessment: There is a need to better incorporate evidence of mental health impacts of climate change in risk assessment and forecasting needs, including climate migration scenarios (Lawrance et al., 2021).

Response planning

Policy integration is lacking: we need to better integrate climate change considerations into mental health policies and programmes, and vice versa, we need to better incorporate mental health and psychosocial support within climate change and health policies (Corvalan et al., 2022).

Children and Adolescents: There is no comprehensive framework that captures the intersection of climate change and mental health specifically for children and adolescents, including addressing differing needs across the stages of development - which is shown in the example below. One Key Informant reported that climate change is reshaping identity, particularly amongst adolescents. They indicated that they had seen gender roles and family dynamics within the home changing so significantly as a result of climate migration, and other factors of social change, that adolescents are increasingly lost in their transition to adulthood.

Better representation in response planning in climate-impacted communities: we need to ensure participatory planning in climate-impacted communities includes diverse voices, avoiding one-size-fits-all approaches (Key Informant).

Advocacy & Resource Mobilisation

Limited financial resources for climate action: The climate damages expected within the next 26 years vastly outweigh the mitigation costs required to limit global heating to 2°C. There is an urgent need for financial mechanisms to deliver more in relation to adaptation finance and to operationalise the Loss and Damage Fund (Romanello et al., 2024).

Limited financial resources for MHPSS: As noted previously, there is a global under-investment in MHPSS in relation to broader health sector financing. This lack of prioritisation of MHPSS is reflected in the extent to which mental health and wellbeing impacts of climate change are acknowledged and addressed within policy and programming.

Hidden economic impact of climate change on mental health: The mental health impacts of climate change are often unaccounted for in policy and planning, representing 'hidden costs' (Lawrance et al., 2021). The cost estimates that we do have are likely underestimated due to it being a neglected area of evidence (Bharadwaj et al., 2024).

Implementation

Lack of focus on prevention and promotion of mental health: Future public mental health initiatives should focus on prevention and promotion alongside treatment, including adverse trauma reactions related to climate change (Augustinavicius et al., 2021).

Gender mainstreaming and gender transformative approaches are not routinely implemented: National policies on climate change should mainstream women's needs, especially those of marginalised communities like pastoralists (Kagunda et al., 2024).

Capacity building gaps: Staff and community volunteers need key messaging and information to talk about the climate and mental health intersection, importantly with an understanding of the gender aspects in relation to their local context (Key Informant). In particular there should be a drive to improve capacity to implement cross-sectoral holistic MHPSS (see Chapter 3 on integration).

We need more innovative service delivery models to overcome the shortage of climate aware mental health professionals: scalable community-level solutions like peer support programmes and task shifting initiatives are needed, especially given the shortage of climate-aware mental health professionals (Israni et al., 2024).

Lack of full gender representation in decision-making positions at all levels: we need to better support women's agency within climate action. Women and SGM people should be recognized as leaders and decision-makers in climate action and DRR (Kivioja, Pongsiri, and Brody, 2023).

Not enough digital innovation: we are not using the innovations available to us in the form of digital and online mental health service provision, especially during climate-related disasters (Lawrance et al., 2021).

Monitoring, Evaluation, Accountability and Learning

Poor data quality: There is a need for routine collection of sex and gender-disaggregated data to identify gaps in service needs, resource allocation, and interventions (Checkuri, Sood, and Campbell, 2024). There is also a need for better reporting on cross-sectoral mental health referrals.

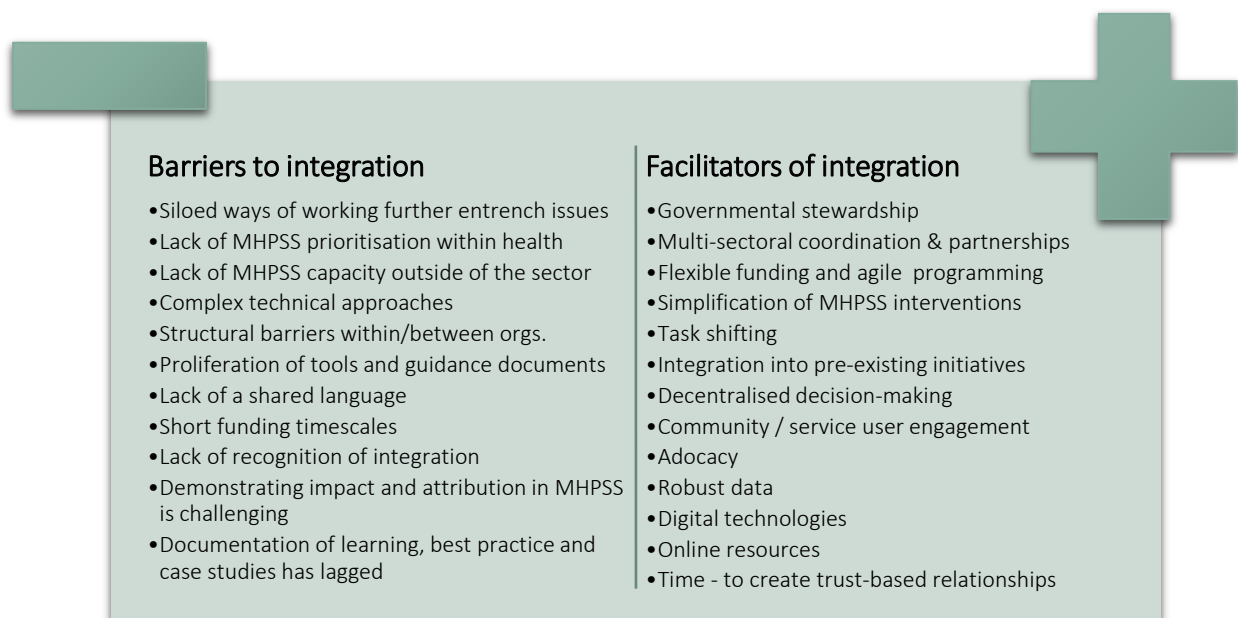
EWS need to be scaled up and broadened to include mental health: only a fraction of countries have health EWS that include mental and psychosocial conditions. These should be integrated with other disease-based EWS as well as with other sectoral EWS.

3. INTEGRATION OF MHPSS, CLIMATE AND GENDER

All three concepts at this intersection are multi-sectoral in their very nature. This complex picture therefore necessitates coordinated efforts to address these challenges holistically from the perspective of the service users for whom their needs are not separated in the same way.

Although integration is being encouraged across the board, even where integration is said to be happening, it is often happening in parallel rather than true integration (Key Informant). This said, there are examples where true integration is taking place, and it is gaining in momentum. An example would be the [Connecting Climate Minds](#) initiative which has very successfully integrated MHPSS and climate change, bringing stakeholders together from a broad array of disciplines and countries.

Below is a diagram summarising the key barriers and facilitators of integration. The latter provides learning and best practice from which this intersection can apply. More context is then provided in the sections below and then synthesised into a set of key recommendations around integration to use as a starting point. The final section of this chapter reviews boundary terminologies that apply to the intersection that can be both useful to bring people together but that also need to be factored into communication strategies as potential barriers to integration, hindering understanding across sectors.



3.1. Key barriers to effective integration

Siloed ways of working: siloes inhibit collaboration and communication across different sectors, leading to inefficiencies, duplication of efforts, missed opportunities for intervention and a lack of holistic solutions to complex issues. Examples include restrictive funding guidelines for research which hinder inclusive approaches (Lawrance et al., 2024) or the narrow technical scope of some academic journals. Likewise, the same is true of funding for programming which can be overly restrictive.

Lack of prioritisation of mental health within the broader health conversation (Whitton et al., 2024): it is a historical problem that MHPSS is always having to fight for recognition and continues to be forgotten by many across the health sector. This is reflected at the policy level and at the research level, and both then impact on the level of resources allocated to MHPSS (Key Informant).

Lack of MHPSS capacity: this is relevant more broadly across the MHPSS sector, as well as specifically within SC. One of the Key Informants reported that the Regional Advisors are stretched so thinly and there is very limited capacity in-country to provide really comprehensive supervision.

Complex technical approaches: Complex technical theories, particularly within MHPSS, can result in specialists with a very narrow focus and related barriers to collaboration (Whitton et al., 2024). The skillsets needed to lead an integrated approach however are more generalist (Key Informant).

Structural barriers between and within organisations also challenge collaborative working arrangements: Smaller organisations struggle with finding the right partners to collaborate with, especially if they don't have internal experience and networks to draw upon in the sector they want to collaborate with. Larger multi-sectoral organisations also struggle to effectively collaborate across departments or workstreams. Competition between departments can even be a barrier to internal collaboration as well as busy schedules and competing agendas.

Proliferation of tools and guidance documents: whilst there remain some key gaps in tools and guidance, the vast array of different approaches can be overwhelming, especially to those on the ground dealing with the challenges of implementation at pace.

Lack of a shared language: this relates to all three sectors, but key MHPSS terminologies in particular are not well understood across different cultures, disciplines and languages.

Short funding timescales: short term and one-off funding approaches mean that implementing partners find it hard to sustain relationships, especially if they are from other sectors (Lawrance et al., 2024).

When integration does happen, it is not always recognised: Integration is often subtle. For example, resilience-building in IDP communities includes elements of mental health and wellbeing but is rarely seen through an MHPSS lens.

Demonstrating impact and attribution in MHPSS is challenging: MHPSS impacts are not easily quantifiable, and it is hard to demonstrate attribution so it's hard to demonstrate value for money, meaning it's less attractive to donors and partners, resulting in a slower uptake and recognition of evidence-based MHPSS approaches.

Documentation of learning, best practice and case studies has lagged: There is a need for better systems to capture and document programmatic examples of integration. Having these would bolster support and galvanise other stakeholders to collaborate more outside of their sectors.

3.2. Facilitators of integration

Governmental stewardship & multi-sectoral coordination: this ensures coordinated policymaking and allocation of resources. It also fosters collaboration across sectors, building consensus among stakeholders (Alcayna & Cao, 2022). It also encourages strategic partnerships which are another enabler of integration (Save the Children International, 2023).

Flexible funding and agile programming: to be responsive to changing contexts across the sectors and between stakeholders it's important to have some flexibility to make changes to programming during implementation (Save the Children International, 2023) (Alcayna & Cao, 2022).

Simplification of MHPSS interventions: there is a need for brief scalable psychological interventions (Massazza et al., 2022) that are openly accessible and easy to integrate into broader initiatives.

Task shifting refers to the strategy of delegating certain healthcare tasks from highly trained professionals to less specialised health workers. This approach has its roots in addressing workforce shortages, especially in resource-limited settings however it can also provide an opportunity for leveraging integrated care. The use of technology to provide supervision and higher cadre expertise support task-sharing as well as integration, illustrating potential areas of synergy (Hoeft et al., 2018).

Integration into pre-existing structures / initiatives: whilst integration from the point of concept provides the opportunity for a more comprehensive integration, the most cost-effective and quick approach can be to adjust pre-existing structures or interventions (IASC, 2021a).

Decentralised decision-making: this allows for more innovative practice and localised intervention, integrating aspects that are most relevant to the context.

Meaningful engagement with communities/service users: this is integral to effective service delivery and ensures acceptability of services, especially if a new model of integration is being trialled. Ultimately the integration is meant to serve their needs better so their involvement is key to effective integration.

Advocacy at all levels: this raises awareness of the need for an integrated approach, but also of the benefits of integration (Save the Children International, 2023) (IASC, 2021a)

Robust data: a robust evidence base provides more weight and urgency to an approach and having high quality, disaggregated data for decision making is key (Save the Children International, 2023)

Digital technologies: integration can be bolstered by innovative technology use such as AI (Save the Children International, 2023)

Online resources: online resource platforms and communities of practice can facilitate sharing of lessons learnt and best practice (IASC, 2021a). An example of this is the [Connecting Climate Minds](#) initiative funded by the Wellcome Trust and led by Imperial College.

Time: building relationships with stakeholders in other disciplines / sectors takes trust and trust is built over time. “Deep, sustained relationships across disciplines, sectors, communities and contexts are built at the speed of trust (i.e. with appropriate investment of time and continuous relationship building that is responsive to needs).” (Lawrance et al., 2024)

3.3. Case studies of good integration

Integration of HIV/AIDS & MHPSS

People living with HIV (PLHIV) are at high risk of mental, nervous system, and substance use disorders, affecting adherence to ARV drugs and retention in care (WHO & UNAIDS, 2022). The integration of MHPSS into HIV/AIDS treatment has gained traction, leading to holistic care models addressing both physical and psychological needs. This integration has improved treatment adherence, reduced stigma, and enhanced the overall quality of life for PLHIV. Challenges to successfully integrating the two include resource constraints, training needs and coordination issues. Lessons learned include:

- **Routine data collection:** The importance of routine and integrated mental health data collection to inform service delivery and policymaking.
- **Standardised protocols:** Developing standardised protocols for implementing MHPSS care within HIV programs is crucial for consistency and effectiveness (WHO & UNAIDS, 2022).
- **Learning networks:** Establishing learning networks that can facilitate knowledge exchange and best practices, helping to bridge the gap between research and practice (Moitra et al., 2024).
- **Prioritisation by funders:** Ensuring that program funders prioritise the integration of MHPSS into HIV services is essential for sustainability and long-term success. This has been key, and one Key Informant highlighted how advocacy to the Global Fund to fight AIDS, TB and Malaria was central to the success of the integration agenda.

Recommendations on successful integration from this integration example include (WHO & UNAIDS, 2022): community-based organisations being engaged in service delivery; MEAL to ensure services are acceptable to the local population; task-sharing with peers, lay health workers, treatment adherence counsellors, or other community-based human resources.

Integration resulting from the COVID-19 pandemic

As one Key Informant highlighted, big global crises can result in a big leap forward in implementation practices - for instance, MHPSS emerged out of the 2004 Tsunami. The COVID-19 pandemic disrupted many service delivery models, accelerating the integration of services as healthcare systems adapted

to new challenges. Strategies included multidisciplinary teams, telemedicine, and integrated surveillance systems. Key facilitators included governmental stewardship, decentralised local decision-making, and multisectoral collaboration, while barriers were fragmented service structures, fragile supply chains, inadequate diagnostics, and workforce shortages.

Alcayna and Cao point to the example of the COVAX mechanism and specifically the 'One Team, One Plan, One Budget' approach which highlighted the importance of building consensus among in-country actors, ensuring that the needs of the countries are the central focus for all engagement and there is flexibility in funding to address bottlenecks as they arise (Alcayna & Cao, 2022).

Integration through the One Health approach

The One Health approach is a multi-sectoral initiative aiming for planetary balance by recognising the interdependence of people, animals, plants, and ecosystems. It spans the humanitarian-development continuum, promoting collaboration across human, veterinary, and environmental health to tackle complex challenges like zoonotic diseases and antimicrobial resistance. The WHO One Health Initiative exemplifies this integration at a global level, with a Quadripartite Collaboration involving WHO, Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP), and the World Organization for Animal Health. The One Health Initiative focuses on strategy development, strengthening evidence, and coordinating One Health activities and programmes (WHO, 2023).

Whilst this high-level action isn't so relevant to the intersection on MHPSS, climate and gender, we can learn from WHO to drive a joined-up approach and ensure prominence on the global health agenda.

3.4. Recommendations for fostering better integration

Below is a list of recommendations for facilitating the intersectional integration agenda. In Annex 3 is a matrix with key stakeholder roles and responsibilities summarised to provide clarity of the different types of relationship that need to be built at the national level.

Overarching

- 1) **Foster a whole of society approach:** this involves the collaborative effort of humanitarian agencies, government, private sector, civil society, and communities working together. Stakeholders may include psychiatrists, psychologists, social workers, school workers, academic institutions, UN agencies, NGOs, humanitarian workers and people from communities themselves.
- 2) **Training and competency development:** Ensure staff from all relevant personnel receive training and ongoing mentorship on integrating gender-transformative MHPSS and climate action into their work. The Humanitarian Leadership Academy is one avenue to explore.

Coordination:

- 3) **Establish cross-sectoral coordination mechanisms:** at the country level with representatives and decision-makers from all relevant sectors. This should be linked with larger multisectoral bodies and include specific focal points from MHPSS, climate and gender.
- 4) **Identify focal points:** Appoint focal points from each sector (MHPSS, climate, gender) to lead coordination and work together on improved alignment. Each focal point will require specific capacity building to understand the nexus and the specific stakeholders they need to ensure are engaged and given voice.

Needs Assessment:

- 5) **Engage academic research actors:** promote academic research seeking mutual understanding of the intersection and ensure dissemination across country, cultural, sectoral and disciplinary lines.
- 6) **Utilise baseline assessments as key tools for integration:** baseline assessments, such as multi-hazard risk and needs assessments are a good platform to engage different disciplines.

- 7) **Undertake a thorough mapping of the status quo before designing interventions:** the 4Ws mapping tool is a good example that generates a picture of who is doing what where and when.

Strategic Planning:

- 8) **Embed Systems Thinking:** integrate systems thinking into all concept designs to map out interdependent relationships from the start and guide comprehensive approaches.
- 9) **Integration of MHPSS, climate and gender as cross-cutting themes within policies and plans:** Timing is critical to this, so mapping the timeframes of the relevant policies and strategic plans is the first step to ensure engagement and participation in the revision process in line with the planning cycles. This activity cuts across several different levels of operation and stakeholder groups:
- Global and national level agency and inter-agency policies and plans, including joint programming and fundraising between agencies.
 - National governmental policies and plans, including national health policies and health strategic plans, HNAPs, broader NAPs, NDCs, climate-related gender action plans; and national gender policies and plans.
 - Sub-national planning processes and related documents.
- 10) **Create a bank of simplified, scalable interventions:** this should include climate-relevant and gender transformational MHPSS interventions that are suitable for integration.
- 11) **Integration across disaster management cycle:** as per these recommendations.
- 12) **Develop context-specific guidance;** based on learning from the HIV/AIDS integration with MHPSS, it would be helpful to structure guidance by service delivery model as well as by resource setting.

Resource Mobilisation:

- 13) **Targeted advocacy to funders:** global level actors can play a key role in leveraging their connections to funders of all types (multi-lateral / bi-lateral / philanthropic / private sector).
- 14) **Integrated proposal development:** implementers have an opportunity to bring together diverse stakeholders and disciplines at the proposal development stage, and if funding rules allow it, to propose integrated approaches even if the funding guidance doesn't suggest it.

Implementation:

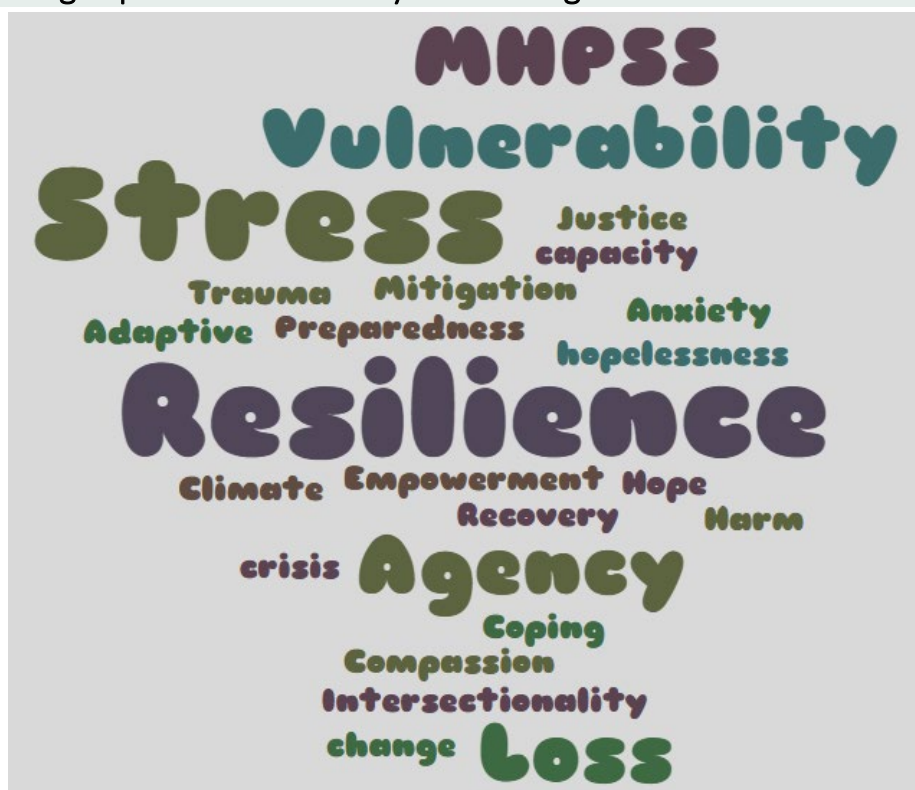
- 15) **Facilitate implementation of guidance at the country level:** Focus on providing support to country or project teams who are implementing on the ground to support aligning to current guidance. In particular there should be a drive to improve capacity to implement cross-sectoral holistic MHPSS. This should help avoid overwhelming country-level actors with excessive technical guidance.
- 16) **Build referral networks:** Develop referral networks across MHPSS, broader health service providers, and other relevant sectors such as education, social protection, and DRR. This should include mechanisms to report on referrals made.
- 17) **Task-sharing:** task-sharing with peers, lay health workers, case workers, or other community-based resources can reduce the pressure on existing personnel. This does require simplification of protocols and approaches as well as clear lines of accountability and oversight.
- 18) **Create standardised protocols:** it's important that the blueprint of the protocol is the same but there is flexibility so that can be adapted to the local context.
- 19) **Resilient Healthcare Facilities:** Create criteria for resilient healthcare facilities and IDP camps that provide integrated care and address specific MHPSS needs of diverse populations, ensuring that WASH infrastructure is resilient to floods and storms, especially for women and girls' menstrual health needs.
- 20) **Integrated resilience-building at the individual level:** ensure a comprehensive approach to individual-resilience building interventions that takes account of intersectionality, gender norms and the full range of climate impacts to mental health and wellbeing across the life-course.
- 21) **Utilise digital and telemedicine** given the shortage of mental health professionals this is a key strategy. Issues around data protection, security and transparency must be considered.

- 22) **Utilise the SC Common Approaches:** one route is to integrate considerations related to this intersection into the SC Common Approaches document.

MEAL:

- 23) **Integrated Disease Surveillance and Early Warning:** Establish systems that integrate gender disaggregated mental health outcomes with climate/weather information to analyse seasonal trends for better programming and resource allocation ahead of peak demand periods.
- 24) **Integrate targets and indicators to track integration of this intersection:** including standardised targets and indicators relevant to the intersection within cross-sector frameworks, with particular attention to ensuring they are gender transformative. As one Key Informant pointed out: *“It doesn’t have to be an MHPSS programme to have MHPSS outcomes”*.
- 25) **Ensure simple yet targeted data collection, maintaining the Do No Harm principles:** ensure data collection requirements for any indicators working at this intersection are simple and can be done by non-MHPSS personnel and align with the Do No Harm approach for MHPSS data collection.
- 26) **Communication Strategies:** Develop strategies for disseminating climate risk information to various population groups, including women, SGMs, adolescents, and children, in a sensitive and accurate manner to avoid exacerbating climate anxiety.
- 27) **Create learning networks:** learning networks facilitate knowledge exchange and best practices, helping to bridge the gap between research and practice. These should include stakeholder from across the three disciplines.
- 28) **Accessibility of learning:** maintain a repository of existing assessments and disseminate information collected for use by policymakers and stakeholders.

3.5.Existing & potential boundary terminologies



Boundary terminologies are the words that sit at the intersection between a set of concepts. They are common terminologies that may or may not have a shared meaning. Identifying them and clarifying their definition within the context of each technical area is crucial for fostering a shared understanding common language between sectors. Through better defining these boundary terminologies we can

attempt to avoid instances where differences in language impede cooperation across a nexus space (Mercy Corps, 2023).

Clearly delineating the divergences and convergences is the first step in moving towards standardised measurement metrics across disciplines which is vital to allow for comparison across contexts. As Lawrance and colleagues' state there must be a recognition though that allows for the multiplicities of application across cultures: *"There is a tension between the need for standardisation for comparison and for adaptation to local contexts that reflect cultural and linguistic diversity in how climate change-related mental health challenges are conceptualised."* (Lawrance et al., 2024)

Below is a list of the various boundary terminologies that emerged over the course of this analysis. They are presented below in a word cloud diagram and then again in a table with additional contextual information on their definition across the three technical areas, highlighting where there are divergences and where the term is universally understood.

Boundary Terminologies with a shared meaning across MHPSS, climate and gender	
Adaptive Capacity	'Adaptive capacity' refers to the ability of a system, community, or individual to adjust to potential damage, take advantage of opportunities, and respond to consequences associated with environmental or societal changes. Coping responses can be adaptive or maladaptive, not just personally but also ecologically so the term is applicable at the individual as well as the ecological level (Climate Psychology Alliance, 2022).
Agency	'Agency' is the ability to act or have an effect and make independent choices reflecting a sense of control and empowerment in one's life and environment (Climate Psychology Alliance, 2022). Women should be seen as agents of change engaged in climate action (Kivioja et al., 2023).
Climate change, Climate crisis, Climate emergency	Climate change refers to the scientific phenomenon of the long-term changes in temperature, precipitation, and other atmospheric conditions on earth. Climate crisis and climate emergency relate more to the climate action that can be taken to mitigate and adapt to climate change. Whilst many actors use these terminologies interchangeably, others feel there should be a more refined usage of them.
Compassion	Compassion is a key unifying concept due to its role in helping us face the enormity of the climate crisis. It enables us to respond with courage but also with an acceptance of the limitations of our powers and it can increase our sense of agency (Climate Psychology Alliance, 2022).
Distress	Distress is related to a feeling of extreme anxiety, pain or sadness. within the context of climate change 'climate distress' is the psychological distress related to the climate crisis.
Empowerment	Empowerment relates to when individuals acquire the power to act freely, exercise their rights, and fulfil their potential as full and equal members of society (Bywater et al., 2021).
Hope / hopelessness	Hope and the converse, hopelessness, key unifying concepts. It is particularly relevant to young people as it takes a future-looking perspective about how climate change will impact the world in years to come.
Intersectionality	Intersectionality is a framework for understanding how various aspects of a person's social and political identities—such as gender, race, class, sexuality, ability, and others—overlap and interact to shape their experiences of discrimination, privilege, and oppression.
Justice	Justice is the maintenance of what is just or right by the exercise of authority or power (Oxford English Dictionary). Its application within climate (i.e. climate justice) relates to the fact that climate change disproportionately affects marginalized and vulnerable

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

	populations, who often contribute the least to GHG emissions. Justice is also relevant to climate-driven conflict and to SGBV.
Protection	Protection could be seen as a unifying terminology that can be used within all of the three sectors to protect the environment or to protect people.
Vulnerability	Vulnerability, referring to a person's susceptibility to external stressors, is also a unifying term and is central to all three technical areas.

Boundary Terminologies with a different meaning across MHPSS, climate and gender

Term	Climate	Gender	MHPSS
Anticipatory action	Acting ahead of predicted hazards to prevent or reduce acute humanitarian impacts before they fully unfold (UNOCHA)		
		Amongst SGBV actors it is often used to refer to the preventative actions that can be taken to prevent SGBV reoccurring	
Anxiety	A feeling of worry, nervousness, or unease about something with an uncertain outcome		
	A heightened emotional, mental or somatic distress in response to dangerous changes in the climate system		mental health condition characterised by excessive apprehensiveness about real or perceived threats, typically leading to avoidance behaviours and often to physical symptoms such as increased heart rate and muscle tension
Do No Harm	A fundamental ethical guideline across various fields, emphasising the imperative to avoid causing harm to people, communities, and environments while delivering services or interventions		
	The climate action that can be taken to mitigate and adapt to climate change		The responsibility to avoid actions that could cause physical or psychological harm to individuals
Loss	The fact or process of losing something or someone		
	Habitat loss or extinction of species but also the loss of culture, traditional livelihoods or social connection that can result from climate change		The experience of losing someone or something significant, which can have profound emotional and psychological impacts
MHPSS	The term 'mental health and psychosocial support' refers to any type of local or outside support that aims to protect or promote psychosocial well-being or prevent or treat mental health conditions. However, it is a long composite term and an unwieldy acronym		

	(Key Informant). There is no suggestion it should be changed, but better explanation of the term is required, particularly to encourage further integration.		
	MHPSS as a concept is not well understood by other sectors.		It is a necessary definition as it attempts to unify the biomedical with the psychosocial
Mitigation	Mitigation refers to the actions taken to reduce or prevent the adverse effects of an event		
	Actions taken to reduce GHG emissions. Within DRR it is used to describe actions to reduce the severity of disasters.	Actions taken to prevent SGBV and other protection issues	Actions taken to reduce the prevalence of mental health conditions
Recovery	The action or process of regaining possession or control of something stolen or lost		
	Ecosystem recovery, also known as ecological restoration, is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed	The process of healing after an SGBV experience	A process of regaining a sense of stability, purpose, and well-being following a period of mental health challenges
Resilience	Resilience is the ability to withstand, adapt to, and recover from adversity, stress, or unexpected challenges. The word can be applied across many domains (natural, social, physical, human, economic).		
	Climate resilience is the ability to thrive in the face of multiple risks and threats posed by climate change	Societal resilience is shaped by gender-based expectations and discriminations hinder women’s and girls’ ability to participate in, and contribute to, society	Psychological resilience is the process and outcome of successfully adapting to difficult or challenging life experiences and/or the ability to cope mentally and emotionally with a crisis.
Stress	Pressure or tension exerted on a material object or a state of mental or emotional strain or tension resulting from adverse or demanding circumstances.		
	Within the climate-health nexus people talk about environmental stressors that can impact our health and wellbeing		The body's response to any demand or challenge and the related psychological response

4. MEASURING IMPACT AND PROGRESS

"Climate change is the largest threat to human health of the twenty-first century. Women are disproportionately affected by climate change. While the physical health impacts of climate change are an active area of research, works related to the mental health impacts are less developed."

(Stone et al., 2022)

This section focuses on the measurement of impact and progress of the intersection between MHPSS, climate and gender equality. As Massazza and colleagues point out, a robust evidence base is key to positioning the topic on the global climate and health agenda, providing the direction for developing innovative interventions and more fuel to the health argument for climate action (Massazza et al., 2022).

4.1. Analytical challenges of current measurement practices

Lack of Data Availability

Each of the three sectors has its own specific issues around data availability which contribute to the overarching lack of data available to link the three sectors together effectively

- We need a high level of **temporal and spatial mental health data** to pair mental health data with the climate data and this is very rarely available (Key Informant)
- Despite the clear gender disparities, **gender disaggregated health data** are often non-existent or under-reported in assessments of the health impacts of climate change and this feeds through to mitigation and adaptation policy and planning (Kivioja et al., 2023)
- **Data on mental health amongst youth/adolescents**: There remains a gap in terms of age-disaggregated data that capture mental health outcomes among children and adolescents, particularly those on the move due to the impacts of climate change (International Data Alliance for Children on the Move, 2024).
- **Lack of gender-disaggregated data**: there is a universal gap in terms of gender-disaggregated data that cuts across all sectors. A 2023 World Bank analysis of SDG monitoring data found that only a third of gender-related SDG data are available for tracking the 50 gender-related indicators within the SDG framework (Beegle et al., 2023). IDPs are particularly hard to capture as many national governments don't report on them routinely or transparently for political purposes (Key Informant) and even less of the data there is on IDPs is gender disaggregated: *"In 2018, only 14 per cent of the countries and territories for which we collected data on IDPs published information disaggregated by sex and age. Of them, only 25 per cent did so systematically."* (Cazabat, 2020). Limiting factors include financial and resource constraints, methodological challenges and ethical and cultural factors (Yasukawa, 2023). Data on displacement related to a specific disaster usually only covers the evacuation and early recovery phase, rarely past one month (Cazabat, 2020).

Study Design

- **Overlapping exposures that interact to produce adverse outcomes** are hard to capture (Ha, 2024) - for example an individual may be exposed to both extreme temperatures and air pollution simultaneously
- **Limited studies purely on women**: a lot of the literature simply compares women to men rather than having a complete focus on women's mental health without the comparison (Stone et al., 2022). This means that women's mental health is always framed in reference to men's mental health.
- **Lack of longitudinal study designs**: we need more reliable longitudinal data on MHPSS - there is a proliferation of small-scale studies that don't have the budget/scope to do large scale comparative analysis, especially for measuring wellbeing and happiness (Key Informant)
- **Mismatched timeframes**: climate change acts on a different timescale to that of human life and most studies looking at the impacts of climate change on mental health focus on weather or climate variability rather than climate change per se (Massazza et al., 2022). Whilst this is a challenge, it is unlikely something that will be solvable due to the realities of conducting such studies.
- **Lack of longer-term impact studies**: Often programmes are 2-4 years in length and it's challenging to demonstrate climate-related impacts within that short a timeframe. Additionally, limitations on funding

limit the possibility of long-term follow up. We need longer programmes with strong indicators that can be measured over a longer timeframe (Key Informant).

- **Less focus on common mental health disorders from climate:** there has been more focus on the more severe mental disorders and the link to climate change than the more common mental health challenges brought about through climate change (Massazza et al., 2022)
- **Over-reliance on head of household:** there is often a focus on the head of household during household surveys and this tends to skew the data to the male perspective, failing to capture the diversity of views and needs. Women may have unique needs and also may know more about household expenditure, children's nutrition and education, or protection issues (Yasukawa, 2023).
- **Sensitivities in collecting SGBV data:** whilst it's important to get the prevalence of SGBV in order to tailor interventions, there is a risk of further traumatising respondents by asking questions on this topic in quantitative surveys (Yasukawa, 2023).
- **Attribution is very difficult to prove** when it comes to climate studies (Massazza *et al.*, 2022) - for example mobility decisions are complex and often linked with other drivers of movement (International Data Alliance for Children on the Move, 2024). Same is the case for attribution of extreme weather to mental health impacts, as people may more closely associate them with disruption of work or social life rather than the weather itself (Pearce & Watkins, 2024).
- **Reverse causality:** there is a risk of some studies on climate change and mental health suffering from reverse causality whereby the direction of cause and effect is opposite to what is assumed. For example, one might assume that exposure to climate hazards worsens mental health. However, reverse causality suggests that individuals with severe mental health issues might be more likely to be exposed to climate hazards because factors like poverty or marginalisation limit their options and increase their vulnerability (Massazza et al., 2022).
- **Few systems-thinking methodical approaches:** whilst systems thinking has been used to develop conceptual frameworks, there is a dearth of empirical examples using complex systems methodological approaches to examine the role of mental health or gender within a broader system of climate change effects (Massazza et al., 2022).
- **Lack of studies examining multiple intersections:** whilst studies focusing on two factors, such as climate and MHPSS or gender and climate are more common, there has not been so much focus on more complex intersections.

Metrics of Measurement

- **Varying definitions of the construct of measurement:** The challenge with mental health and climate change is to define the construct before we can accurately measure it (Key Informant)
- **Lack of common metrics across MH that allow for contextualisation:** currently researchers from different groups (e.g. psychiatry, psychology, neuroscience, social science) measure mental health outcomes using very different measures which makes comparison difficult. There are also considerable cultural and contextual constructs related to mental health to consider - for instance we are taking constructs from high-income contexts and applying them to the LMIC contexts without verification of whether it is also relevant to the local context. This is particularly the case for the tools developed to measure climate anxiety which are often unvalidated or unreliable (Massazza et al., 2022). Therefore, there is a need for more common metrics for mental health that allow for contextualisation but also facilitate comparability across contexts. Frameworks such as the IASC Common M&E Framework for MHPSS (see section 4.2 below) should be more widely used to bring in standardisation that is also context specific.
- **Lack of metrics for the less quantifiable impacts of climate change:** this gap means that the more hidden impacts to mental health and wellbeing are not considered within broader climate vulnerability and risk assessments.
- **Challenges with self-reported data:** Much of mental health data is self-reported or reporting to an interviewer which introduces several biases (Key Informant). The alternative however is to use more hospital admission data or psychiatric assessment data, both of which do not capture the full breadth of MHPSS issues. Therefore, awareness of the challenges with self-reported data is important but not something that should be changed.
- **Language complexities:** talking about climate emotions is complex and subjective and language often doesn't adequately capture this complexity (Panu Pihkala & Anya Kamenetz, 2024).

- **Lack of gender sensitive data collection tools:** we need to ensure the data collection tools themselves are gender sensitive, not just aim for gender disaggregation (Key Informant). Examples of steps to ensure gender sensitivity include using gender neutral language, providing diverse response options when asking about gender and ensuring tools are accessible to varying literacy levels.
- **Stigma skewing responses:** There is considerable stigma associated with mental health, particularly in LMIC contexts, which can impact response rates and responses themselves (Key Informant)
- **Lack of standardised weather-related metrics:** there is a lack of global standardised definitions for weather - for instance, extreme heat has such a wide variation of temperatures observed between countries that it has to be context specific rather than standardised globally (Pearce and Watkins, 2024). Whilst this only applies to one of the three sectors in question, it impacts on the comparability of weather data used within studies that might include MHPSS and gender.
- **Few metrics on slow onset climate impacts:** There has not been as much focus on the MH impacts of slow onset climate events as extreme weather events (Massazza et al., 2022)
- **Narrow focus on PTSD in humanitarian contexts:** PTSD is a clinical construct that captures only some aspects of the distress that emergency-affected populations experience. There tends to be an inappropriately narrow focus on PTSD in many humanitarian crises (IASC, 2021b).

Data Collection

- **Challenging conditions for collecting data** before, during or after an extreme weather event (Stone, Blinn, and Spencer, 2022), particularly when the population of study is on the move or is displaced (International Data Alliance for Children on the Move, 2024)
- **Hidden populations:** the most vulnerable populations, are often hidden or hard to reach (Key Informant)
- **Low levels of literacy:** particularly amongst vulnerable and harder to reach populations, low levels of literacy mean that the role of the interviewer is key, requiring more oversight (see point below)
- **Need for interviewer-administered tools:** some studies rely on interviewer-administered tools which requires significant training and oversight for accurate results
- **Contextual restrictions on free speech:** There is an increasing tightening of public discourse in some countries, and gender and MHPSS can be sensitive topics (particularly in relation to SGMs). With this shrinking of civic space, we need to be aware that there's an impact on the evidence base. (Key Informant)
- **Need for more focus on the Do No Harm principles** during data collection, particularly when collecting data from children, adolescents and other vulnerable populations.

Data Sharing

- **There is a lack of data sharing** due to weak and fragmented research information systems (Lawrance et al., 2024)
- **Confidentiality issues around public sharing** of national and global data on climate change and mental health leads to a lack of trust among potential participants (Lawrance et al., 2024)

Human and Financial Resources

- **Limited funding opportunities** that focus on the climate/mental health nexus (Lawrance et al., 2024)
- **Capacity gap:** there is a lack of research and institutional capacities in climate change and mental health (Lawrance et al., 2024) - this includes both lack of skills amongst existing personnel as well as a lack of enough personnel to undertake the research that is required
- **Lack of personnel diversity:** the diversity of personnel engaged in leading the research on climate/mental health is lacking - we need to enable people from diverse backgrounds to come into the space (Lawrance et al., 2024)
- **Psychological impact on researchers:** Existing personnel engaged in research on the climate/mental health nexus experience psychological burnout due to the emotional challenges of undertaking the research and the lack of appropriate support (Lawrance et al., 2024).

4.2. Overview of key measurement frameworks

This section provides an overview of the key measurement frameworks that are relevant to the climate, MHPSS and gender equality intersection. These are presented in terms of the principal focus of the framework (i.e., MHPSS, climate or gender or all three).

MHPSS Measurement Frameworks

The 2007 IASC guidelines on MHPSS in emergency settings detail a minimum response requirement of conducting assessments of mental health and psychosocial issues and initiating participatory systems for M&E. The comprehensive response is detailed as conducting regular assessments and regular in-depth analyses, M&E with pre-defined indicators in line with the guidelines, disseminating results and lessons learned and developing inter-agency indicators for MHPSS in the transition phase (IASC, 2007).

The **Do No Harm Principles** are particularly important to integrate into measurement design and implementation for MHPSS, and teams involved, especially if they are non-MHPSS personnel, will require guidance. The SC MHPSS Technical Guidelines include guidance on the Do No Harm approach for research and MEAL processes specific to MHPSS in humanitarian contexts (Save the Children International, 2023). This guidance includes strategies such as ensuring all MEAL/research personnel are trained on PFA and child safeguarding issues as well as on active listening approaches and appropriate communication with children; ensuring questions about mental health do not cause additional distress or anxiety to participants; ensuring proper informed consent; ensuring safeguarding measures are in place; and ensuring appropriate feedback loops.

IASC MHPSS Common M&E Framework

The Common Monitoring and Evaluation Framework for MHPSS Programmes in Emergency Settings was introduced in 2017, offering recommended and commonly used tools and indicators for MHPSS M&E in emergency settings. The framework was updated in 2021 to include MoV, enhancing the ability to measure the impact of MHPSS programmes.

The common framework identifies the overall goal of MHPSS programming as reduced suffering and improved mental health and psychosocial wellbeing. The goal impact indicators are as follows:

- 1) **Functioning:** For example, the ability to carry out essential activities for daily living, which will differ according to factors such as culture, gender and age.
- 2) **Subjective well-being:** Aspects of subjective well-being that could be measured include feeling calm, safe, strong, hopeful, capable, rested, interested or happy, and not feeling helpless, depressed, fearful or angry.
- 3) **Extent of prolonged disabling distress** and/or presence of mental, neurological or substance use (MNS) disorders.
- 4) **Ability of people with mental health and psychosocial problems to cope with problems** (for example, through skills in communication, stress management, problem-solving, conflict management or vocational skills)
- 5) **Social behaviour:** For example, helping others, aggressive behaviour, use of violence or discriminatory actions.
- 6) **Social connectedness:** Referring to the quality and number of connections an individual has (or perceives to have) with other people in their social circles of family, friends and acquaintances. Social connections may also go beyond one's immediate social circle and extend, for example, to other communities.

Importance of contextualisation: The framework indicators are recommended, not mandated, with the intention of introducing more coherence to the measurement of impact and progress (IASC, 2021b). The recommendation is that each MHPSS programme aligns their overall goal to that in the IASC M&E framework and uses at least one goal impact indicator; plus at least one recommended MoV related to that goal impact indicator; plus at least one outcome indicator from the common framework. Whilst it is recommended to maintain the precise wording / structure of the indicators, there is a recognition of the need to contextualise measurement to the local understanding of MHPSS. Therefore, scope is provided within the MoVs suggested to align to the local context. This is the entry point for further integration of the intersection.

Integration of climate within the framework: The six areas of mental health listed within the impact indicators are all relevant to the impact that climate change can have on mental health, and indeed, have been built into the diagram developed to visualise the intersection presented earlier in this report. As one Key Informant noted however, the more subjective/indirect impacts of climate change such as climate anxiety or solastalgia do not fit so well within this framework.

Relevant MoVs: Whilst this framework does not specifically reference any climate-specific measurements, the means of verification listed are potentially relevant for use within a climate-related emergency situation, and in fact many of the focal concepts of the MoVs are related to the impacts highlighted in the diagram depicting the intersection presented earlier in the report. Examples include The Adult and Children's Hope Scale, the Aggression Questionnaire, Barriers to Accessing Care Evaluation, the Multidimensional Scale of Perceived Social Support and the Neighbourhood Cohesion Instrument which measure social connectedness and social cohesion, and the PIA Resilience Questionnaire.

Integration of gender within the framework: This framework was developed with a gender lens and considerations of gender-related issues in measurement and reporting are presented within the document. In particular, the need for gender-disaggregated data collection and the need to ensure the Do No Harm approach when disaggregating for gender minorities. The impact indicator on functioning specifically mentions gender as an influencing function. Some of the MoVs also specifically target women's mental health outcomes through the life-course – such as the Postpartum Bonding Questionnaire.

Outcome indicators relevant to the MHPSS/climate/gender intersection: whilst most of the indicators included in the framework could be potentially relevant to climate-affected settings, the most applicable to the specific intersection we are analysing are included below:

- O1.3. Percentage of target communities where local people have been enabled to design, organise and implement emergency responses themselves
- O2.5. Number of members of at-risk groups (such as children or survivors of sexual violence) who use safe spaces
- O2.6. Percentage of target group members (such as the general population or at-risk groups) who feel safe
- O3.1. Number of children reunified with family members or who are in other appropriate care arrangements according to their specific needs and best interests
- O3.4. Level of family connectedness or cohesion
- O3.10. Number of people in at-risk groups engaged in livelihood opportunities
- O3.11. Number of children with opportunities to engage in learning developmentally appropriate socio-emotional skills
- O4.1. Number of people with mental health and psychosocial problems who report receiving adequate support from family members
- O4.2. Abilities of caregivers to cope with problems (through, for example, stress management skills, conflict management skills, problem-solving skills, parenting skills, knowledge of where to seek help or information and resources needed to access care)
- O5.1. Percentages of medical facilities, social services facilities and community programmes that have staff trained to identify mental health conditions and to support people with mental health and psychosocial problems
- O5.3. Percentages of medical facilities, social services facilities and community programmes that have and apply procedures for referral of people with mental health and psychosocial problems
- O5.4. Number of women, men, girls and boys who receive focused psychosocial and psychological care (such as psychological first aid, linking people with psychosocial problems to resources and services, case management, psychological counselling, psychotherapy or other psychological interventions)
- O5.5. Number of women, men, girls and boys who receive clinical management of MNS disorders through medical services (primary, secondary or tertiary health care)
- O5.6. Number of people per at-risk group (for example, unaccompanied or separated children, children associated with armed groups, survivors of sexual violence) receiving focused care (such as psychological first aid, linking people with psychosocial problems to resources and services, case management, psychological counselling, psychotherapy or clinical management of mental health conditions)

As one Key Informant noted, there could be scope, in future revisions of this framework, to integrate additional guidance, indicators and MoVs specific to climate disasters, however due to the broad overarching scope of the framework, it would not be appropriate to focus on climate over other emergency situations.

MHPSS measurement tools

The IASC MHPSS Common M&E Framework provides a comprehensive list of tools (MoV) for collecting data to use for impact and progress assessment of MHPSS. These all relate to humanitarian contexts and as such, are all potentially useful in the assessment of the climate impacts on mental health and wellbeing. Below is a list of specific tools mentioned in the Common M&E Framework as well as in the reviewed literature and by Key Informants as being useful to measurement of this intersection. Many of these come from Sadie Ha's chapter in Rhonda Moore's recent book on Climate Change and Mental Health Equity (Ha, 2024):

- **Routine health service statistics:** the International Classification of Disease (ICD) codes used in routine healthcare reporting identify outcomes such as dementia, depression, mania, bipolar disorder, schizophrenia, self-harm, substance use, and suicide and some studies also use administrative records to assess referrals to MHPSS services following events. Use of routine health information statistics does rely on high quality health information systems so in LMIC contexts this data can be incomplete. It also requires people receiving care for mental health problems within the health system, which is very rare in some contexts like refugee camps.
- **Distress/anxiety:** the Kessler Psychological Distress Scale: this is relevant to survey/interview-based assessment and screens for symptoms of distress, anxiety, or mood complications.
- **Anxiety:** The General Anxiety Disorder Assessment, the State-Trait Anxiety Inventory, the Habit Index of Negative Thinking, and the Penn State Worry Questionnaire
- **Depression:** the Patient Health Questionnaire: this assesses symptoms of depression
- **PTSD:** the PTSD Checklist, the Impact of Events Scale (revised), the Post-Traumatic Diagnostic Scale, and the Trauma Screening Questionnaire
- **Climate anxiety:** Climate Change Anxiety Scale – this measure, developed by Clayton and Karazsia looks at the extent to which climate anxiety impairs functioning to distinguish between an adaptive response and a maladaptive response. Ogunbode suggests instead to capture the intensity of climate emotions using a measure of negative climate-related emotions that is based on the 'State Anxiety' dimension of the State-Trait Anxiety Inventory (Ogunbode et al., 2022).
- **Extreme weather impacts:** Environmental Distress Scale and the Storm Fear Questionnaire
- **ECD:** the Bayley Scales of Infant and Toddler Development, the Wechsler Preschool and Primary Scale of Intelligence-Revised, the MacArthur–Bates Communicative Development Inventory, the Peabody Picture Vocabulary Test-Revised, the Ages and Stages Questionnaire
- **Socioemotional and behavioural problems in early childhood:** the Brief Infant Toddler Social Emotional Assessment, the Short Temperament Scale for Infants, the Child Behaviour Checklist for externalising behaviours or by the Infant Characteristics Questionnaire for temperament.
- **Social media emotions:** analysis of posts on social media platforms has also been used to analyse emotional content related to climate anxiety after extreme weather events – most prominent of these is the Lancet Countdown on Climate and Health (see section below on this framework).

Ha notes that while some of these are validated in the context of climate change, the majority are not. To facilitate future research and policy decisions, it may be important to reach a consensus on outcome assessment approaches to ensure consistency. Key to this however is to ensure adaptability of tools so that they are applicable to different contexts.

UNICEF MMAPP

The UNICEF Measuring Mental Health Among Adolescents and Young People at the Population Level (MMAPP) initiative aims to address the lack of reliable data on adolescent and young people's mental health. The initiative focuses on developing culturally adaptable and clinically validated tools for data collection, establishing global indicators for standardised data collection, and disseminating knowledge products to inform policies and programs (UNICEF, 2023b).

The mental health data collection module developed through the MMAPP initiative will be first launched as part of the 7th round of Multiple Indicator Cluster Surveys (MICS) which will guarantee broad global coverage across countries. There is a strong emphasis on cultural adaptation, and when the module is first used in a new setting a process is followed to ensure that language and content is contextualised appropriately.

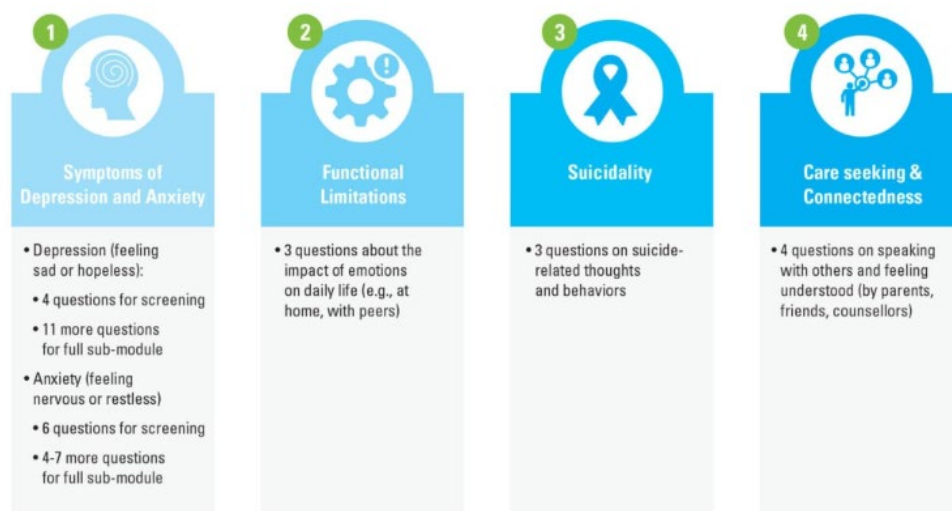


Figure 10: Mental health domains in MMAP (UNICEF, 2023b)

One of the objectives of the initiative is to establish a set of global indicators on mental health of adolescent and young people for promoting standardised data collection and reporting across countries and regions, as follows:

- Symptoms of depression among adolescents and young people
- Symptoms of anxiety among adolescents and young people
- Symptoms of depression and/or anxiety among adolescents and young people
- Functional limitations among adolescents/young people with symptoms of depression/ anxiety
- Suicidal ideation among adolescents and young people
- Care-seeking for mental health among adolescents and young people
- Unmet need for mental health care among adolescents and young people with symptoms of depression and/or anxiety
- Someone to talk to about mental health among adolescents and young people

Whilst the indicators don't relate specifically to climate change, all of the indicators listed in the MMAP are relevant to the measurement of outcomes on the MHPSS/climate/gender intersection (UNICEF, 2021)

Multi-sectoral MHPSS Assessment toolkit

This Multi-sectoral MHPSS Assessment Toolkit provides practical support and guidance for MHPSS assessments in humanitarian settings. Published in 2024, it is an update and expansion of the 2012 WHO & United Nations High Commissioner for Refugees (UNHCR) Assessing Mental Health and Psychosocial Needs and Resources: Toolkit for Humanitarian Settings.

In humanitarian crises, sectoral and multi-sectoral needs assessments are often used to guide and fund response efforts, so integrating MHPSS needs is key to ensuring that MHPSS activities are sufficiently prioritised and supported (IASC, 2024).

The guidance includes a section on considering gender in assessments: it emphasises the importance of considering the norms, roles and inequalities related to gender as well as the need to engage women and girls in particular both as participants in informing the assessment design and as a population of interest. The section also highlights key Do No Harm principles in relation to gender, including the need to identify SGBV referral pathways ahead of any assessment so that interviewers can refer people accordingly (IASC, 2024).

The document also includes a section on integrating MHPSS into sectoral and multi-sectoral needs assessments and highlights the following sectors as relevant: Health, Education, Protection (including Child

Protection, GBV and Mine Action), Nutrition, Water, Sanitation and Hygiene (WASH), Shelter and Settlements, Camp Coordination and Camp Management (CCCM) and FSL. The guidance provides a phased approach for sudden onset emergencies allowing for flexible timelines, highlighting that MHPSS assessment can be integrated into every phase.

A list of common multi-sectoral assessment tools is presented, showing how MHPSS-related components are integrated already. A lot of the tools presented are relevant to the MHPSS/climate/gender intersection:

- The humanitarian emergency settings perceived needs scale (HESPER), WHO (2011)
- Health Resources Availability Monitoring System (HeRAMS), Health Cluster (2024)
- Public Health Situation Analysis (PHSA), WHO and Health Cluster (2018)
- Protection Analysis Framework (PAF) Tools, Global Protection Cluster (2021)
- Child Protection Rapid Assessment Child Protection Working Group, Global Protection Cluster (2012)
- Gender-based violence in Emergencies Resource Pack: Tools, UNICEF (2019)
- GBV assessment and situation analysis tools United Nations Population Fund (UNFPA), IMC & GPC (2012)
- Camp management toolkit, CCCM Cluster (2015)
- WASH promotion initial needs assessment checklist – Appendix 1, Sphere Project (2018)

As well as being aware of integration that has already happened, the guidance highlights the need for driving further integration and it provides several recommended routes: 1) Include MHPSS in household surveys; 2) Include MHPSS considerations in the Multi-Cluster/Sector Initial Rapid Assessment (MIRA) and Joint and Intersectoral Analysis Framework (JIAF); and 3) Include MHPSS assessment data in humanitarian needs and response plans.

Specific tools the guidance document covers include desk reviews, MHPSS service and activity maps, household and individual surveys, tools to explore stakeholder perceptions, and facility and site visit checklists. All of these tools are relevant to the MHPSS/climate/gender intersection.

Climate-related Measurement Frameworks

Lancet Countdown on Health & Climate Change

The **Lancet Countdown on Health & Climate Change** is a comprehensive global collaboration that tracks the evolving health impacts of climate change and the necessary responses. The initiative, which has been going since 2016, produces annual reports that evaluate data across five key domains and 56 indicators, providing an up-to-date assessment of the links between health and climate change. The latest report highlights record-breaking health threats due to climate change, including increased heat-related deaths, extreme weather events, and changing patterns of infectious diseases. It emphasizes the urgent need to redirect resources from fossil fuels to health-supporting, zero-emissions initiatives to mitigate these impacts and protect global well-being (Romanello et al., 2024).

This is a key global monitoring framework for the climate and health sector (Lawrance et al., 2024) yet of the 56 indicators only one relates directly to mental health (see green highlighting in figure below). However, as illustrated by this report, many of the direct and indirect impacts on health from climate change also have knock-on impacts to mental health and wellbeing. Therefore, in the diagram below which depicts all 56 indicators, those that have mental health-related impacts have been highlighted in yellow.

Indicator 1.2.5 relates to extreme heat and sentiment. The headline findings in the 2024 report was that in 2023, extreme heat events cumulatively worsened human sentiment by a record 53% more than the baseline average effect between 2006 and 2022 (Romanello et al., 2024). It was introduced in the 2021 report, and it tracks the effect of heatwaves on the general sentiment of expressions from Twitter users around the world. This year introduces a modified methodology. First, it links geo-localised X (formerly known as Twitter) posts with coincident meteorological data to estimate the effect of heat exposure on expressed sentiment using a multivariate fixed-effects regression. Second, it overlays this response effect with observed temperatures, to estimate the change in annual heat attributable online sentiment expression (Romanello et al., 2024).

Whilst this indicator gives us a snapshot of how heat can influence sentiment, it by no means gives a comprehensive picture since social media use is not uniform around the world. It introduces a skewed view

of extreme heat and sentiment that favours those in higher-income contexts and also populations that have higher media literacy. The latter is particularly relevant for women as in many cultures there is a considerable digital gender gap, with women having fewer skills and access to digital technology compared to men. It also does not take account of those adolescents with poor access to technology. Massazza and colleagues also point out that there is a risk of pathologizing typical emotional reactions (Massazza et al., 2022).

1 Health hazards, exposures, and impacts 1.1 Heat and health 1.1.1 Exposure of vulnerable populations to heatwaves 1.1.2 Heat and physical activity 1.1.3 Change in labour capacity 1.1.4 Rising night-time temperatures and sleep loss 1.1.5 Heat-related mortality 1.2 Health and extreme weather-related events 1.2.1 Wildfires 1.2.2 Drought 1.2.3 Extreme precipitation 1.2.4 Sand and dust storms 1.2.5 Extreme weather and sentiment 1.3 Climate suitability for infectious disease transmission 1.3.1 Dengue 1.3.2 Malaria 1.3.3 Vibrio 1.3.4 West Nile virus 1.4 Food security and undernutrition 2 Adaptation, planning, and resilience for health 2.1 Assessment and planning of health adaptation 2.1.1 National assessments of climate change impacts, vulnerability, and adaptation for health 2.1.2 National Adaptation Plans for health 2.1.3 City-level climate change risk assessments 2.2 Enabling conditions, adaptation delivery, and implementation 2.2.1 Climate information for health 2.2.2 Benefits and harms of air conditioning 2.2.3 Urban greenspace 2.2.4 Global multilateral funding for health adaptation programmes 2.2.5 Detection of, preparedness for, and response to health emergencies 2.2.6 Climate and health education and training 2.3 Vulnerabilities, health risk, and resilience to climate change 2.3.1 Vulnerability to severe mosquito-borne disease 2.3.2 Lethality of extreme weather events 2.3.3 Rising sea levels, migration, and displacement 3 Mitigation actions and health co-benefits 3.1 Energy use, energy generation, and health 3.1.1 Energy systems and health 3.1.2 Household energy use 3.1.3 Sustainable and healthy road transport	3.2 Air quality and health co-benefits 3.2.1 Mortality from ambient air pollution by sector 3.2.2 Household air pollution 3.3 Food, agriculture, and health co-benefits 3.3.1 Emissions from agricultural production and consumption 3.3.2 Diet and health co-benefits 3.4 Tree cover loss 3.5 Health-care sector emissions and harms 4 Economics and finance 4.1 The economic impact of climate change and its mitigation 4.1.1 Economic losses due to weather-related extreme events 4.1.2 Costs of heat-related mortality 4.1.3 Loss of earnings from heat-related labour capacity reduction 4.1.4 Costs of the health impacts of air pollution 4.2 The transition to net zero carbon, health-supporting economies 4.2.1 Employment in low-carbon and high-carbon industries 4.2.2 Compatibility of fossil fuel company strategies with the Paris Agreement 4.2.3 Stranded coal assets from the energy transition 4.2.4 Country preparedness for the transition to net zero 4.2.5 Production-based and consumption-based attribution of CO ₂ and PM _{2.5} emissions 4.3 Financial transitions for a healthy future 4.3.1 Clean energy investment 4.3.2 Funds divested from fossil fuels 4.3.3 Net value of fossil fuel subsidies and carbon prices 4.3.4 Fossil fuel and green sector bank lending 5 Public and political engagement with health and climate change 5.1 Media engagement with health and climate change 5.2 Individual engagement with health and climate change 5.3 Scientific engagement with health and climate change 5.3.1 Scientific articles on health and climate change 5.3.2 Scientific engagement with the health impacts of climate change 5.4 Political engagement with health and climate change 5.4.1 Government engagement 5.4.2 Engagement by international organisations 5.5 Corporate sector engagement with health and climate change
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Figure 11: The indicators of the 2024 report of the Lancet Countdown highlighting indicators that have related MHPSS and gender impacts (Romanello et al., 2024)

Climate vulnerability & adaptation assessment frameworks

Climate risk, vulnerability and adaptation assessment tools and frameworks are essential for understanding how climate change affects different systems, communities, and ecosystems. These tools identify vulnerabilities by analysing exposure, sensitivity, and adaptive capacity to climate risks, enabling stakeholders to identify suitable adaptation activities and prioritise interventions. Whilst health, and MHPSS within that, is just one of many sectors these assessments are intended to cover, it is an important entry point for integration.

There is a plethora of these tools from across the humanitarian sector that could be relevant to this context and three such examples include the [Community-based Risk Screening Tool](#) from IIED, the [Vulnerability & Risk Assessment Toolkit](#) from Oxfam and the [Climate Vulnerability and Capacity Analysis Handbook](#) from Care.

These frameworks already integrate the gender lens comprehensively and would have the potential to also capture mental health and wellbeing issues. This would require a more detailed review and integration of a specific tools or questions for capturing the MHPSS related data. There may be potential to explore the use of one of the tools outlined as MoV in the IASC Common M&E Framework.

WHO Guidance on Climate Change and Health Vulnerability & Adaptation Assessment

WHO's 2021 guidance document on conducting climate change and health V&A assessments was co-developed with WHO, the Pan American Health Organization and Health Canada. A V&A assessment is a participatory process. It is a tool that allows countries to evaluate which populations and specific geographies are most vulnerable to different kinds of health effects from climate change; to identify weaknesses in their social systems; and to specify interventions (World Health Organization, 2021a).

Whilst mental stress (such as eco-anxiety), is mentioned in the section outlining the health risks of climate variability and change, the guidance document overall does not consider mental health to the extent it should do. As Massazza and colleagues note: *"In the most recent iteration of the WHO Climate and Health surveys, mental health was the least considered priority in climate change vulnerability and adaptation assessments for health."* (Massazza et al., 2022)

The guidance emphasises the importance of considering social determinants of health - such as gender, socioeconomic status, and access to resources - in assessing vulnerability and planning adaptation measures. There is detailed guidance around centring health equity in the process and reaching all populations.

Overall, this guidance document would be a helpful tool for measuring baseline and subsequent vulnerabilities and identifying key adaptation routes, however until it is revised to include more of a focus on MHPSS and the related impacts, it is of little use to assessment of this intersection.

SOSCHI Framework

The [SOSCHI project](#), led by the UK Office for National Statistics and funded by the Wellcome Trust, is developing a framework of indicators based on state-of-the-art statistical methods to measure climate-related health risks (Pearce & Watkins, 2024). The aim is to support global reporting and monitoring on climate change to highlight data gaps and drive action to address them.

The Standards for Official Statistics on Climate-Health Interactions (SOSCHI) project has been going since 2022 and has recently released the first version of their climate health framework. This framework covers 7 topics, with mental health being one of them. Each of these topics is covered in an introduction paper looking at the health impact and outlining metrics for measuring that impact. The 4-year timeframe means there is only scope to develop a small number of headline indicators for the framework and the ones included have been selected because they can provide regular, reliable and comparable data across countries.

The introduction paper for mental health outlines their decision to focus on two key mental health outcomes rather than wellbeing metrics due to the difficulty in measuring wellbeing outcomes at scale without conducting large population surveys. They do acknowledge that this leaves a big gap but that they can only measure what is feasible at the global level (Pearce & Watkins, 2024). The two metrics they have selected are: suicides attributed to extreme heat and hospitalisations for mental health reasons attributed to extreme heat.

They have indicated that the same indicators but for extreme weather are important and will be signposted for future development as well as an indicator on the development of a NAP, which integrates short-, medium- and long-term MHPSS support and an indicator on access to mental health services. None are within the scope of the current project though (Pearce & Watkins, 2024).

Overall, this framework is an important step forwards in providing standardised global indicators across sectors impacted by climate, but it is limited by the need to be comparable across contexts and data

availability so from the MHPSS context, the indicators only represent the most severe end of the mental health spectrum and therefore only provides a partial picture of the issue. There was also limited reference to gender and no mention as to whether the indicators would be disaggregated by gender, indicating this might be another key gap.

Gender Equality Measurement Frameworks

The SC MHPSS Technical Guidance includes gender and power analysis as a key component of an effective Do No Harm approach to the provision of MHPSS services in humanitarian contexts: *“Use gender and power analysis and diversity analysis to identify power dynamics associated with gender, age, disability, race, ethnicity, and other factors and use the findings to inform and support inclusive opportunities for participation of children, adolescents, caregivers, and community members from diverse backgrounds, including the most marginalized, in MHPSS programming”* (Save the Children International, 2023). There are many tools that can support a gender and power analysis and two are profiled below alongside two indices that can help us measure gender equality, the SC Power Index and the United Nations Development Programme (UNDP) / UNWOMEN Twin Gender Indices.

WHO Guidance on Mainstreaming Gender in Health Adaptation to Climate Change Programmes

WHO’s 2012 guidance on mainstreaming gender in health adaptation to climate change programmes provides an overview of what gender is and what the gender dimensions of health and climate change are, followed by guidance on how to mainstream gender within the health adaptation programme cycle. The guidance provides tools for gender analysis (see figure above) and a checklist with practical recommendations for each of the phases of the programme cycle, namely identification, formulation and design, implementation and M&E.

Factors that influence health impacts of climate variability and change	Health-related considerations for current and projected health risks	Gender-related considerations		
		Biological factors	Sociocultural factors	Access to and control over resources
Risk factors and vulnerabilities				
Access to and use of current health protection programmes, including health emergency and disaster risk management actions				
Treatment options				
Health-seeking behaviours				
Experiences in health care settings				
Health and social outcomes and consequences				

Figure 12: Matrix for gender analysis of health vulnerability and impacts due to climate variability and change (World Health Organization, 2012)

Whilst mental health is mentioned in the document in terms of the background on climate, gender and health, there are no specific tools related to mental health and wellbeing, representing a gap and a potential opportunity for advocacy if this guidance is due to be updated.

Save the Children Gender and Power (GAP) Analysis

SC’s GAP Analysis Tool is designed to examine, understand, and address discrimination and inequality that prevent children, their families, and communities from claiming their full and equal rights. The GAP Analysis is a type of action research that investigates how gender and power inequalities intersect, helping staff and partners understand the types and depth of discrimination in each context. This tool supports the design and adaptation of programming that positively transforms unequal power relations, ensuring all stakeholders can equitably access, participate in, be decision-makers for, and benefit from activities. Ultimately, it enables evidence-based programming and advocacy that advance gender equality and social justice (Bywater et al., 2021).

This analytical tool is designed to be used across the various programming sectors at SC so is not intended to be sector specific. There are 6 domains outlined that are used to examine key gaps, risks, and barriers that limit gender equality and social justice in different arenas of life. Both climate change and MHPSS feature in the Safety, Dignity and Wellbeing domain. However, all of the other domains also contain elements of

relevance to the MHPSS/climate/gender intersection – for instance division of labour and unpaid labour which is key to women’s mental health and wellbeing before, during and after climate events is part of domain five and expectations about behaviour, which is highly influential in determining an individual’s vulnerability and exposure to climate events, is part of domain three.

A possible opportunity for action utilising this tool could be to suggest specific thematic updates to the questions in the tool to ensure a more integrated approach to climate and MHPSS.



Figure 13: Domains of analysis from the GAP Analysis Guidance (Bywater et al., 2021)

The Save the Children Power Index

This indicator looks at the percentage of girls who report they are empowered according to a tool called the [Power Index](#). The SC Power Index is a quantitative composite index designed to measure girls' empowerment. It uses Likert scales to assess girls' attitudes, perceptions, and beliefs across four domains of power: Power To, Power With, Power Within, and Power In. The index scores range from 0 to 112 points, with higher scores indicating greater empowerment.

The MoV is a tool called the Girls’ Power Index which is adaptable and has been used in health and education projects to support the measurement of empowerment among girls, often comparing their scores with those of boys to understand empowerment across different groups.

It is worth exploring whether there is potential to develop a tailored MoV for the MHPSS/climate intersection if there were interest.

Twin Gender Indices (UNDP / UNWOMEN)

The Twin Gender Indices developed by UNDP and UN Women and launched in July 2023, are designed to provide a comprehensive assessment of women's empowerment and gender equality. The indices include:

1. Women's Empowerment Index (WEI): Measures women's power and freedoms to make choices and seize opportunities in life.
2. Global Gender Parity Index (GGPI): Assesses gender disparities in key dimensions of human development, comparing the status of women relative to men.

These indices offer different but complementary lenses for evaluating progress and highlight the complex challenges faced by women globally. They aim to inform targeted interventions and policy reforms to advance gender equality and empower women and girls. Importantly, they include a proxy for time spent in unpaid care activities included in a gender inequality measure as well as a GBV indicator (UNDP & UN Women, 2023).

Whilst these measures are not sector-specific, there is clear applicability to this intersection and it would be useful to trial their use within the context of an existing project that includes elements of MHPSS and climate change adaptation.

DRR Measurement Frameworks

The Sendai Framework

An overview of the Sendai Framework is provided in Section 1 above, so this section will focus on the measurement side. The framework recognises the importance of addressing the mental and psychosocial impacts of disasters, alongside physical health and, as described above, it includes mention of mental health under priority 4.

Zaidi and Fordham critique the Sendai Framework in relation to its avoidance of addressing the root causes of disaster vulnerability, and within that, of gender inequality. They argue this has hindered its own transformative capacity (Zaidi & Fordham, 2021). They cite a lack of metrics on gender risk and resilience which essentially overlooks women through M&E mechanisms and call for better inclusion of women and gender minorities within the indicators.

The next iteration of the Sendai Framework in 2030 is a key opportunity to redress this balance both from the MHPSS side as well as the gender side.

Save the Children Global Indicators

The SC Global Indicators are a set of verified, quality-assured indicators used to measure the key results of SC's projects worldwide. These indicators are part of an Indicator Library developed to support country-level work and enable cross-project analysis. They provide detailed guidance, including MoV, measurement guidance, and definitions, to ensure consistency and accuracy in data collection and reporting. Specific indicators from the Indicator Library are relevant to the intersection between MHPSS, climate and gender. These are listed below.

MHPSS Indicators

- Improved functioning (MHPSS)
- Improved social behaviour (MHPSS)
- Improved social connectedness (MHPSS)
- Improved subjective wellbeing (MHPSS)
- Reduced distress or symptoms of disorder (MHPSS)
- Strengthened ability to cope (MHPSS)

Climate Resilience Indicators

- Children benefiting from climate resilience in education
- Children covered by climate-health information system
- Climate resilience of child protection service providers
- Climate Resilient WASH in Health Facilities
- Health workers using climate-health information
- Participants taking locally led climate risk reduction actions
- Uptake of diversified / climate-resilient livelihood options
- Usage of Climate EWS

- Usage of Weather & Climate Information Services (WCIS)

Gender Indicators

- Gender equitable norms
- Decision making power for women and girls
- Gender equality in decision making processes
- Abilities of children to exercise civil rights and freedoms
- Community engagement to advance gender equality
- Minimum Dietary Diversity-Women (MDD-W)
- Power Index
- Unpaid domestic work

Other SC Indicators or relevance

- Postpartum care coverage for mothers (%)
- Access to documentation for children on the move
- # of people reached through anticipatory actions
- % of individuals provided with technical assistance on Shelter
- Coverage of Acute Malnutrition Treatment
- Safely managed drinking water
- Safely managed sanitation

One Key Informant also highlighted the need to update country reporting frameworks to include reporting on intersectionality so findings from this analysis could feed into that.

As these are pre-defined indicators there isn't scope to change them, however it might be worth exploring if it's feasible to add one or two new ones specific to the intersection based on some of the recommendations at the end of this chapter. In the interim, the simple act of using these indicators together in reporting would be a step forward toward understanding what is happening at this intersection, and this wouldn't require any new development or modification of what exists.

4.3. Recommendations to inform the development of new indicators

Below is a list of potential areas to explore in the development of new indicators targeting this intersection. This list is by no means exhaustive, and the suggestions are high-level and would require a great deal more exploration and refinement before being implemented. Some are suggestions from literature, and some are suggestions based on observed gaps.

- **Integration of cross-cutting indicators into national plans:**
 - Inclusion of gender sensitive mental health considerations and actions in relevant climate policies and plans (NAPs)
 - Inclusion of climate and gender considerations within broader health sector plans
- **Gender & intersectionality:**
 - Indicators that report on girls and women as agents of change (i.e. % of girls who express increased sense of self-efficacy or feel confident in their ability to delay early marriage)
 - Indicators that report on the gender dynamics of IDPs agency and their progress in pursuit of durable solutions (Yasukawa, 2023)
 - Indicators that measure pathways towards gender equality change: changes in knowledge, attitudes, norms (Marcus et al., 2021)
 - Incorporate questions related to sexual and gender diversity, disability, mental health, and investigating power dynamics and contextual factors
 - Indicators tracking the changing of gender norms and roles and how they are reproduced, legitimised and reinforced.
- **MHPSS-related**
 - Access to MHPSS services disaggregated by gender
 - Referrals from programmes outside of the MHPSS sector would better inform the picture of need
 - MHPSS approaches being used by actors outside of MHPSS sector (Yasukawa, 2023), and specifically from actors in the climate and DRR sectors
 - Expressions of intent / hope for the future (linked to climate anxiety)
- **Climate-related indicators**
 - The existence of a gender-transformative NAP, which integrates short-, medium- and long-term mental and psychosocial health support (Pearce & Watkins, 2024)
 - Indicators that aim to quantify non-economic L&D such as mental health issues arising from climate-induced stress and displacement (Bharadwaj et al., 2024), erosion of cultural heritage, the loss of biodiversity, and the disruption of social cohesion and community networks. Alignment with data from the C-CIQ method of quantifying.
- **Community / health**
 - Time spent collecting water (disaggregated by age and gender) (Clements, 2024)
 - Rates of anaemia in a changing climate that is gender specific (Checkuri et al., 2024)
- **DRR**
 - Percentage of affected people reporting awareness of and access to EWS information, disaggregated by sex and other vulnerability factors
 - Percentage of families with prevention and preparedness plans incorporating MHPSS that account for specific gender related risks

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

- Family composition over time (does the head of household change and why)

• MEAL

- Development and maintenance of a central online repository of mental health-related and gender transformative climate risk information to inform programming
- Existence of integrated surveillance systems that integrate the tracking of mental health outcomes alongside weather and climate data
- Explore the potential to develop a specific SCI Global Indicator on this intersection.

• Financing

- Indicators measuring funding for research on the MHPSS/climate/gender intersection
- Proportion of climate adaptation funding spent on programming relevant to the intersection
- Proportion of organisational programme financing which targets action relevant to the intersection

5. OPPORTUNITIES FOR ACTION

5.1. Further research opportunities

As this is a relatively under-studied intersection, the literature review identified a broad range of gaps in the evidence base. These have been synthesised into 12 overarching categories:

1. The role of sex and gender in influencing climate-related vulnerability to mental health impacts

Evidence is limited on how gender and sex influence vulnerability and exposure to climate-related mental health risks. An example being gender norms dictating that men are often exposed to high temperatures through outdoor work, while biological factors mean women may experience greater physiological stress in extreme temperatures (van Daalen et al., 2024). This complex interplay between the socio-cultural factors and the biological factors is therefore key to targeting interventions. In addition, there should be an exploration of the transformative role that agency can play in strengthening climate resilience amongst women and girls to inform interventions going forward.

2. Mental Health Impacts of Climate Change through the Life-course

The life-course perspective on climate change and mental health is complex and under-explored, involving risk and protective factors, cumulative impacts from extreme weather, inter-generational effects, sex-related impacts like paternal exposures on offspring outcomes (i.e. heat impacts on sperm quality) (Ha, 2024). Specific areas that have emerged include climate impacts to mental health at key developmental stages, particularly early years and adolescence; climate impacts on children and adolescent mental health and wellbeing more broadly; and climate impacts on mental health and wellbeing amongst elderly women and men is an area of interest here that requires further exploration to build the evidence base to drive targeted interventions (Mehta et al., 2024).

3. Factors influencing the longer-term impacts on mental health

There is a need for improved understanding of the specific interplays between gender and climate-sensitive factors such as water and food security, WASH (especially MHM), and vector-borne diseases (Rothschild and Haase, 2023). Of particular interest here is to look intersectionally at both gender and age and other socio-economic characteristics.

4. Geographical Research Gaps

There is a critical need for more studies on climate change and mental health in South America, Africa, and Asia, particularly regarding climate anxiety, the unique experiences of SGMs and the impacts of SGBV during climate disasters, especially under extreme heat (Ha, 2024; Checkuri, Sood, and Campbell, 2024).

5. Air Quality and Vulnerable Populations

The mental health effects of air pollution on SGMs and also children and adolescents, are under-researched, necessitating a focused agenda to address these disparities (Checkuri, Sood, and Campbell, 2024). Also, women's perceptions of air pollution and the connection to adverse birth outcomes and their own psychological health (Rothschild & Haase, 2023)

6. Climate Anxiety and Solastalgia

Emerging concepts like climate-anxiety require intersectional approaches to understand their effects across different genders, particularly among women and SGMs, youth and adolescents (Checkuri, Sood, and Campbell, 2024). As noted earlier, the interactions between climate anxiety and existing mental health conditions is not well understood (Israni et al., 2024). It is also important that we grow the evidence base on climate anxiety in the humanitarian context to redress the skew towards high income settings, and to understand how climate action may promote/protect mental health – linked to the point below (Corvalan et al., 2022).

7. The Mental Health and Wellbeing Co-Benefits to Climate Action

The association between adaptation and mitigation interventions and the potential co-benefits that could arise for mental health and wellbeing is under-researched (Charlson et al., 2022). This would be particularly

interesting through an intersectoral lens to identify specific sub-groups who might benefit. This would provide more weight to the calls to account for these in country level NDCs. Of particular interest is the concept of PTG (Israni et al., 2024) (Connecting Climate Minds, 2024a).

8. Community-Level Factors

Most existing research has concentrated on individual-level factors, with less attention given to community-level influences on mental health in the context of climate change (Augustinavicius et al., 2021). In particular, social cohesion and its inverse social isolation due to extreme weather (Connecting Climate Minds; Ha, 2024).

9. Displacement

The evidence base on displaced populations is lacking, with insufficient data to inform targeted interventions on IDPs disaggregated by age and gender, and few insights after the initial displacement period (International Data Alliance for Children on the Move, 2024). Specifically, the extent to which women are at a greater risk of displacement than men, under which conditions, and how this can be mitigated (Cazabat, 2020). The flipside of this is also of interest –the impacts of immobility, specifically for women and children.

10. The impact on mental health of slow onset climate change

There has been focus on the impacts of extreme weather events but less of a focus on the impacts to mental health of slow-creeping and chronic climate change (J. L. Augustinavicius et al., 2021) and of particular interest would be an intersectional lens to identify specific at-risk population groups.

11. The costs of the mental health impacts of climate change

We require better quantification of both the economic burden that climate impacts on mental health and wellbeing results in (Charlson et al., 2022 as well as the NELD related to mental health and wellbeing (Bharadwaj et al., 2024) is required to feed into the ongoing Loss and Damage discussions (Connecting Climate Minds, 2024a).

12. Methodological advancement

There is no consensus on assessing mental health effects related to climate change, with a variety of study designs and tools used across studies. A standardised approach with validated tools and quantitative measures of outcomes is needed for consistency in future research (Ha, 2024). There are also opportunities to draw on existing methods from across other disciplines and applying them to this intersection (Massazza et al., 2022). There have been calls for more implementation research (Augustinavicius et al., 2022; Charlson et al., 2022) and testing of impact of adaptation and mitigation interventions in relation to mental health for different sub-populations.

5.2. Advocacy

“When key stakeholders – including children and youth advocates – speak a common language based on an agreed terminology, dialogues and interventions that aim to protect children affected by climate mobility are likely to be more inclusive, efficient and productive.”

(International Data Alliance for Children on the Move, 2024)

Advocacy is key to highlighting the intersection of MHPSS, climate, and gender equality. It reveals hidden dynamics within the nexus and promotes the need for action to address the historical neglect of mental health in climate and health discussions. An example that a Key Informant highlighted, was the 77th World Health Assembly's 2024 climate change and health resolution which, in its first draft, made no mention of mental health. After intense advocacy from key stakeholders, the words ‘mental health’ were included in the [final resolution](#) – a seemingly small change, but one that ensures its inclusion going forward.

Key advocacy framing

- **The health argument for climate action:** a key messaging strategy being used by many of the health advocates at COP29 is to stress that framing the need for climate action is the most effective way of

leveraging public support and mobilising for action, highlighting how physical and mental health can function as important motivators for climate action (El Omrani et al., 2024).

- **Agreeing a shared language:** as this analysis has shown, one of the key next steps is to use the findings from this document to galvanise support for better alignment through a shared language. The findings on boundary terminologies will be central to this.
- **Driving a more streamlined approach to integration:** consensus amongst key stakeholders working at this intersection is required on how to better align efforts and push at the right levers to facilitate improved integration in line with the findings of section 4 of this report.
- **Spotlighting specific gender transformative interventions:** The MHPSS and climate intersection is progressing well in terms of the research focus, especially with initiatives like Connecting Climate Minds. However, this isn't yet being fed down to the implementation side in terms of integrated interventions and the gender aspect is less recognised. To highlight this, stakeholders should agree on shared messages and develop gender-transformative interventions.
- **Targeted adolescent and child focused messaging:** this is particularly key in relation to the findings on climate anxiety and efforts should be targeted at driving forwards the research agenda specifically for humanitarian contexts to better understand the climate anxiety angle amongst adolescents.
- **Women and girls as agents of change:** this is a key point to emphasise based on the literature review and the need to drive agency rather than just the empowerment agenda. *"We need to refer to women as agents of change rather than passive beneficiaries"* (Kivioja et al., 2023)
- **Emphasise the co-benefits of climate action:** leverage more recognition of the climate/mental health intersection by targeting mitigation actors with key messaging around the specific mental health-related co-benefits of climate action like creating 'green' and 'blue' spaces.
- **Considerations around climate anxiety:** this approach focuses on the synergies and actions people can take as well as providing evidence-based facts about risk, pairing difficult information with opportunities for action.

Advocacy entry points

- **Loss and Damage:** Work with the Santiago Network on L&D to incorporate approaches that take account of the NELD related to mental health and wellbeing into the technical support they provide to countries. The Santiago Network on Loss and Damage aims to provide technical assistance to developing countries that are particularly vulnerable to the impacts of climate change (Global Climate & Health Alliance, 2024).
- **NDCs:** there is a pressing need to push for countries that are currently finalising their new NDCs due in 2025 at COP30 to include recognition of the impacts to mental health, and specifically to account for the considerable mental health co-benefits that climate mitigation actions can bring.
- **NAPs/HNAPs:** countries across the world continue to make progress in drafting new and updating old NAPs and HNAPs. Therefore, there is an opportunity for country level advocacy to ensure better integrated action around this intersection in these ongoing processes.
- **Global adaptation indicators:** to continue the work started at COP29 on a set of adaptation indicators within the UAE Framework for Global Climate Resilience to be adopted at COP30, advocating for inclusion of indicators that will contribute to progress reporting relevant to the intersection - see Section 5 for a starting point (Massazza et al., 2024)
- **COP30 in Brazil:** The focus of COP30, scheduled to take place in Belém, Brazil in November 2025, will be on strengthening climate action and accountability. It is pegged to be a 'children's COP' as well which places SC in a key position to leverage its lead in this area. It is the deadline for the submission of the next round of NDCs as well so will be a key milestone for countries.
- **Sendai Framework revisions:** in 2030 the current term of the Sendai Framework ends so in the years leading up to this point there will be an advocacy opportunity to influence both the wording of the framework as well as the indicators used for monitoring.
- **Leveraging global climate and health alliances and platforms:** select findings from this report could be disseminated through existing platforms specific to each sector. In particular, the two principal routes for the climate and health community – the WHO-led [ATACH](#) and the [Climate x Health network](#) (led by GCHA and Amref and funded by Wellcome and the Rockefeller Foundation).

- **Advocacy with MHPSS professional organisations/universities:** this is key to ensuring that educational messaging around the intersection is included in MHPSS related training curricula.
- **Advocacy with WHO to update their V&A Assessment guidance to better integrate mental health and wellbeing:** as detailed above, the current guidance hardly mentions MH.
- **2026 Nordic Conference on MHPSS in Fragile and Humanitarian Settings:** Denmark is set to lead the climate stream again at the next Nordic Conference (as was the case for 2024). A series of upcoming policy framework workshops that emerged from the outcomes of the 2024 conference are the first milestone in the run-up to the 2026 conference. These workshops are an opportunity to dig into some of the key findings of this report and galvanise support for a shared action agenda going forward. A key focal area should be the drive to agree on both a shared language and some high-level strategies for driving a more joined-up, integrated and multi-sectoral approach.
- **Round table meetings with Danish politicians:** as highlighted by one Key Informant, hosting mini conferences, or round tables, targeting the participation of key Danish politicians is one route to influencing Danida's development approach. It would be beneficial to hold one such event focusing on some of the key findings and recommendations from this analysis ensuring clear advocacy asks. Two Key Informants noted the need to target advocacy on intersectional programming towards donors, and in particular for the Sahel Region as there is a downward trend in investments in these fragile states which is worrying.
- **Leveraging high-level connections within WHO and UNICEF:** targeted messaging to high-level stakeholders closely connected to both organisations is key to ensuring a unified voice at key events within the Global Health calendar such as the UN General Assembly and the World Health Assembly.
- **Internal advocacy related to SC:** A targeted internal advocacy campaign should be developed to highlight the need for more intersectional integration and develop a common approach. This will be transformative for all SCI programmes and seeing as this intersection covers such a broad range of programming areas, it could be the perfect entry point to leverage that process. Learning from this process should be shared with other cross-sectoral organisations. As one Key Informant put it: *"we are supposed to be the experts and we're on a really steep learning curve on this, so how can we expect the senior leadership, who need to know about so many other areas as well, lead this"* – so it needs to come from the experts targeting the senior leadership with key messaging and strategies to facilitate it.

Key Advocacy Partners

- [Global Mental Health Action Network](#) – their advocacy briefs were widely used at COP29
- [United for Global Mental Health](#) – existing partners of the MHPSS Collaborative
- [The Global Climate and Health Alliance](#) – central to the climate/health nexus advocacy space
- [COP2](#) – 'Care of People and Planet' - network of 450+ organisations from around the world who focus on the intersection of psychological resilience and climate change
- [The Climate Psychiatry Alliance](#) – hub for "climate-aware" mental health professionals to engage

5.3. Policy Development

Participatory and evidence-based policy development ensures that policies are not only grounded in robust scientific data but also reflect the needs and perspectives of those directly affected. Involving stakeholders in the decision-making process fosters inclusivity, transparency, and accountability, leading to more effective and sustainable solutions. Over the course of this analysis several priority action areas emerged specific to the policy-making process:

Voice, representation & meaningful participation, including:	The need to use policy processes themselves to address persistent systemic inequities and the need to see women, girls and SGMs as agents of change rather than passive beneficiaries (Kivioja, Pongsiri and Brody, 2023). The need to include voices of those with lived experience of climate change impacts alongside mental health professionals in the development of policies on climate and mental health (Lawrance <i>et al.</i>, 2021)
Interconnectedness and the importance of systems thinking	Systems thinking can contribute to a more nuanced understanding of the interconnections, the power dynamics and the levers of change across the intersection. This is needed in order to connect across silos and factor in the intersectionality issues highlighted in this document. As we are coming from a status quo of distinct siloed sectoral approaches, it is important for the policy-makers to look across the siloes and facilitate the connections where they exist (Lawrance <i>et al.</i>, 2021). Integration is key to this and the first step is ensuring climate and gender are integrated into MHPSS policies, and vice versa for both gender and climate.
Political prioritisation and willingness to change	Being able to identify and act on willingness to change is a key skill for policymakers. It is the key ingredient that is often overlooked. Sometimes the willingness is there but at the sub-national level so then policy-makers should target that level (i.e. mayors and cities). Mental health has suffered from lack of high level political will historically and now there are even more competing priorities. (Lawrance <i>et al.</i>, 2021)
Cost-informed policy making	The true cost of climate impacts on mental health, as well as the savings related to the co-benefits of climate action, need to be factored into cost-benefit analyses and related policy-making decisions (Lawrance <i>et al.</i>, 2021). The same is true for integrating the costs into both climate and health policies. There is an overarching need for more innovative financing mechanisms for immediate disaster response and longer term health resilience.
Key skillsets	There are specific skillsets we are lacking at the policy-making and leadership levels. These include the ability to interpret the evidence base across different sectors and join the dots to ensure the evidence base is fully and correctly translated into effective policies.

Specific policy-making priorities were numerous but a few of the key ones to emerge include social protection policies to protect women from SGBV after extreme weather and adolescent girls from early and forced marriage; the increased burden of care that climate change places on women in particular, and specific social policies that can address that; and more nuanced policies for displaced populations, including for male climate migrants.

One of the key policy-related outcomes from COP29 in Baku was that countries agreed a decision on gender and climate change to extend the Lima Work Programme on Gender and Climate Change for another 10 years. A key development here was that climate mainstreaming and gender disaggregated data in climate action is now highlighted as key recommendations within the Lima Work Programme. There was also an agreement to develop a new gender action plan for adoption at COP30 next year⁶.

5.4.Funding

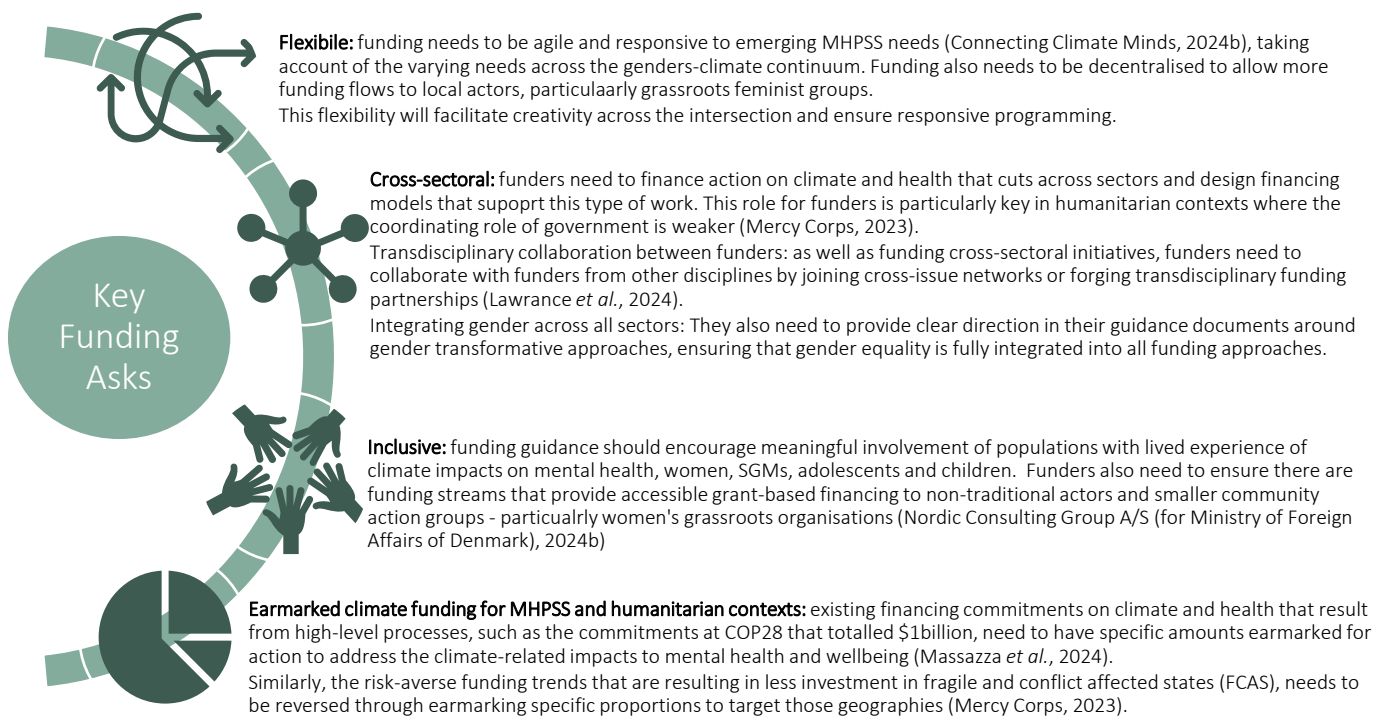
“The cost of mental health conditions as a direct result of climate-related hazards, air pollution and inadequate access to green space is projected to reach nearly US\$ 47 billion per year by 2030.”

⁶ <https://unfccc.int/news/cop29-un-climate-conference-agrees-to-triple-finance-to-developing-countries-protecting-lives-and#:~:text=With%20a%20central%20focus%20on,300%20billion%20annually%20by%202035.>

COP29 Special Report on Climate Change and Health: Health is the Argument for Climate Action (WHO, 2024)

In a special report published ahead of COP29 in Baku, WHO called for radical realignment of economic and financial systems to support both human and planetary health, in line with principles of the Just Transition (WHO, 2024). Now we are post-COP29, and we know what the financial outcomes are: an agreement to triple climate finance for developing countries, from \$100 billion to \$300 billion annually by 2035, with a broader goal of \$1.3 trillion globally from public and private sources (UNFCCC, 2024b). This is the New Collective Quantified Goal on Climate Finance (NCQG) and whilst it's an important advance in driving financing, it has left many bitterly disappointed as it falls significantly short of the financing asks going into COP, particularly from developing countries (LSE Grantham Institute, 2024). This underlines the need for intensified action on climate at all levels. As Massazza and colleagues note *"mental health cannot be safeguarded if climate action is not appropriately financed"* (Massazza et al., 2024). In addition to the insufficient level of financing, it is also a problem that there is no decision on the specific proportional allocation to adaptation and L&D, under which MHPSS interventions would predominantly be financed.

To secure funding for actions at the MHPSS, climate, and gender equality intersection, stakeholders must engage both traditional and non-traditional funders across all three sectors, broadening the funding base. Below is a summary of the key asks to funders for financing of action across the intersection of MHPSS, climate and gender equality.



As stakeholders plan for COP30 in Brazil, financing should be central to their advocacy. Collaborative efforts are needed to ensure that NCQG funding, despite being inadequate, doesn't worsen climate inequities and that commitments are realised promptly. Health, and mental health in particular, needs to be centred within NCQG arrangements going forward (WHO, 2024). Financing for L&D should acknowledge the significant climate impacts on mental health. A dedicated health workstream is needed which recognises this and maintain a focus on mental health within the broader agenda. The Santiago Network on Loss and Damage is crucial for quantifying health-related losses, and MHPSS stakeholders should engage with its members.

5.5. Programming

To avoid overburdening local teams, findings from this analysis should be carefully and creatively integrated into existing trainings, workshops and fed through coordination mechanisms. For regions with relevant programming opportunities, begin with participatory workshops to contextualise the key concepts and outcome pathways before conducting needs assessments. This helps ensure a better understanding of the

intersection, and in particular, of MHPSS. The diagrams below illustrate key programming considerations to guide managers and technical staff in addressing the MHPSS/climate/gender intersection.

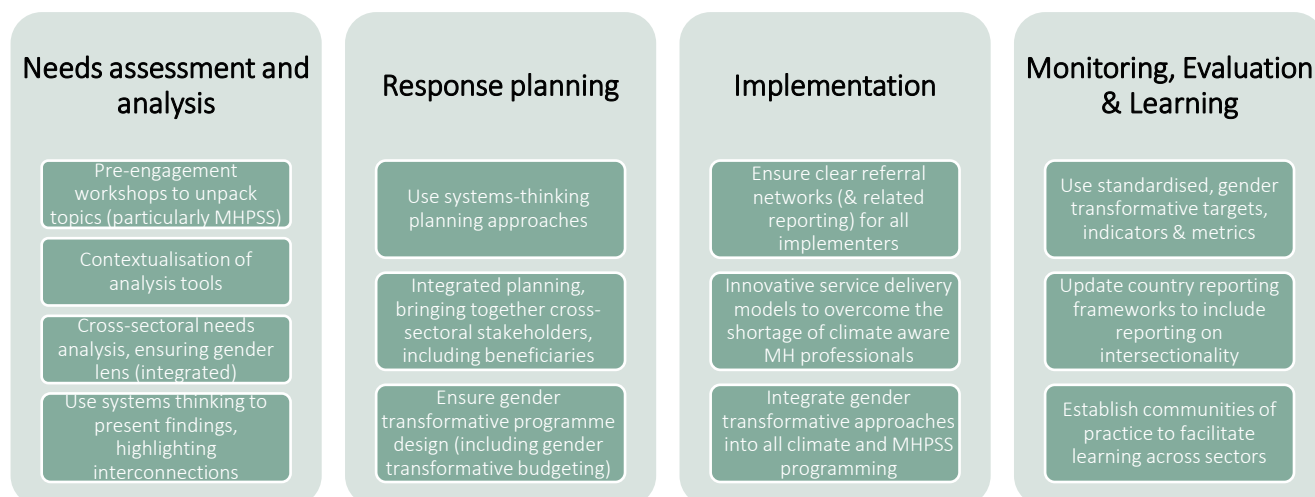


Figure 14: Key Programming Strategies

5.6. Integration into Danish Development Policy Strategy 2026-30

Denmark's current development cooperation strategy, *The World We Share*, was launched in January 2021 and runs until July 2025. It reflects its commitment to addressing global challenges such as poverty, inequality, climate change, and conflict. Rooted in the principles of solidarity, human rights, and sustainability, the strategy focuses on fostering inclusive growth, promoting democratic values, and ensuring environmental resilience. Climate change and the need for an equitable green transition features strongly in the strategy, as does gender equality, girls and women's rights. Mental health is mentioned in relation to humanitarian crises but only once.

While the exact focus of the next development strategy has not yet been defined, it is likely to build on the priorities of *The World We Share* while adapting to emerging global challenges, including an increased focus on climate change. The strategy is also likely to align closely with Denmark's international commitments, including the UN Sustainable Development Goals (SDGs) and the Paris Agreement, while emphasizing partnerships and private sector engagement. Denmark's strong emphasis on global solidarity and innovation positions it to address intersecting challenges like climate change, inequality, and geopolitical instability.

In terms of the relevance to the MHPSS, climate change and gender intersection, the following insights can guide engagement and advocacy by the MHPSS Collaborative and SCD with the Danish Government going forward. They are based on the premise that Danida will want to build on progress made under *The World We Share* and that recent studies commissioned by Danida will inform their strategy, as well as a little internal intelligence from SCD / MHPSS Collaborative colleagues.

Potential technical focal areas: the following technical areas are likely to be included within Danida's next SPA strategy (NB: this is not an exhaustive list, just projections based on reading and consultations).

Climate change: The Danish Government's document on priorities for Danish development cooperation in 2024 indicated that climate change would be a key focal area in 2024, and this is unlikely to change going forwards. According to that document, in 2024 climate aid alone comprised 30% of the committed assistance to developing countries (Government of Denmark, 2024), with a skew to the adaptation agenda.

Migration (with a focus on climate mobility): the global increase in migration, particularly to Western Europe, is driven by the multifaceted challenges facing communities in lower- and middle-income countries. Danida acknowledges these interconnections and therefore places a strategic focus on addressing the root causes of migration, climate change being a key one. This includes internal displacement as well as migration. Many of the longer-term impacts detailed in this report relate to displacement and migration, including impacts on SGBV, IPV, CEFMU and other protection issues, access to services and loss of social connectedness. Key to this stream of work will be emphasising the interconnections and a nexus approach.

Nature-based solutions (with a focus on forests and nature): The 2024 priorities document notes the Danish Government's interest in supporting forests and nature through initiatives targeting deforestation and biodiversity (Government of Denmark, 2024). This was a multi-year commitment, so it is likely to extend into the strategic priorities of the next SPA period. The connections between nature and mental health are an emerging area of interest and one that would be worth further investigation to identify potential strategic partners. Key to this stream of work would be the identification of mental health and wellbeing co-benefits of action on forests and trees and highlighting this in communication with Danida.

SRHR & climate: this was the topic of a deep dive commissioned by Danida and published in June 2024. This indicates that it's an area of interest to them, therefore it is likely to be a core area of focus. The specific areas of intersect with this analysis include SGBV, perinatal mental health, HIV and STIs, and access to SRHR services during extreme weather events.

Education & climate: as above, this was the topic of a deep dive commissioned by Danida and published in June 2024. The specific points of intersect relevant to this analysis include educational infrastructure, in particular its relation to the impact of extreme heat on student mental health and wellbeing; access to clean drinking water at schools; school-based WASH facilities, in particular MHM facilities for girls; and the importance of keeping up school attendance, particularly for girls, in the face of climate challenges, especially displacement.

Humanitarian-development-peace-nexus approach: Danida is clear in all its communication that it focuses its support at the humanitarian-development-peace-nexus, and it encourages all partners to ensure complementarity, coherence and coordination across the nexus.

Likely strategic approach: in order to realise impact, the following are likely approaches that will be relevant for SCD and MHPSS Collaborative colleagues to highlight:

Intersectionality: throughout Danida's last SPA and the communication on 2024 priorities, there has been a strong focus on intersectionality and the need for multi-system, multi sectoral, multilevel, and multi-stakeholder approaches that break down silos where they exist. This is likely to continue going forwards. A few Key Informants mentioned that Danida works flexibly and would welcome efforts from partner organisations to drive the same values on intersectional working as they themselves demonstrate in their strategic approach. Therefore, this opens the door for SCD to use the opportunity to drive the integration agenda internally and to illustrate this to Danida, potentially using the example of the MHPSS/climate/gender intersection to model a more integrated approach to programming.

Localisation: demonstrating a locally led approach will continue to be a priority approach and one that SCD is strong on. Specific groups of interest relevant to this intersection include women, girls and boys and SGMs as well as those with lived experience of mental health impacts of climate change.

Civil society engagement: demonstrating links with active grassroots civil society organisations, particularly women's groups and adolescent action groups is key.

Co-benefits: an important strategy that SCD should employ, irrespective of whether or not it is highlighted in the next SPA strategy is to emphasise the MHPSS co-benefits of climate action, both mitigation and adaptation.

CONCLUSION

The evidence of human-induced climate change is undeniable, with significant alterations in weather patterns and climate across the globe. The mental health impacts are particularly profound, leading to increased rates of psychological distress, PTSD, depression, and other mental health conditions. The impacts on mental health and wellbeing span every level of the socio-ecological model from the individual, to the interpersonal to the community and the societal level. The mental health ramifications are compounded by the inequitable burden of climate change, disproportionately affecting those who have contributed least to GHG emissions. Factors such as gender and sex, as well as age, race, ethnicity, religion, and socio-economic status mean that each individual has a unique experience of climate change, highlighting the complex intersectionality of climate-driven mental health impacts. Gender plays an important role, modifying an individual's exposure and vulnerability to climate hazards such as floods, storms, heatwaves etc. The specific mental health impacts that are outlined in this report are therefore viewed through the gender lens to highlight specific groups more at risk of each impact.

The analysis included in this report provides an overview of the landscape underpinning this intersection, presenting a picture of the gendered direct and indirect impacts of climate change on mental health and wellbeing. These have been explained using the socio-ecological model:

Individual: loss of life and physical injury; heat stress impacts particularly for women during pregnancy, infants and the elderly; malnutrition particularly for women and girls; climate-sensitive vector-borne diseases for which gender roles influence exposure; WASH-related impacts for women and girls related to collecting water and needs during menstruation and pregnancy; sexual health impacts linked to sexual risk behaviour during climate disruptions; exacerbation of existing mental health conditions, particularly in relation to post-natal maternal mental health and mental health of the elderly; and increased awareness of climate impacts which can lead to climate anxiety, ecological grief and solastalgia which are highly relevant to adolescents, and to adolescent girls in particular.

Interpersonal: At the interpersonal level, climate change drives SGBV; conflict over natural resources impacting both men, women and boys and girls in different ways; child protection issues including trafficking and CEFMU; as well as an increased burden for caregivers who are usually women and girls.

Community: At the community level, impacts include increased climate mobility; loss of traditional culture and social connectedness; workplace vulnerabilities, particularly for women; and disruptions to education, particularly for girls. All of these impact men, women, girls, boys and SGM individuals differently.

Society: At the societal level impacts include disruption to essential social services, importantly health, MHPSS and child protection services, as well as to the legal system and the rule of law; and an increased mental health burden on service providers and first responders.

Case studies from Somalia and Tanzania have been presented to illustrate how the intersection plays out on the ground. The case study from Somalia illustrated how multiple overlapping exposures and impacts can impact one individual or community whereas the case study from Tanzania illustrated how awareness of climate impacts differs and impacts adolescent boys and girls differently.

Key features of the three, currently siloed sectors have been presented, including the challenges and facilitators of improved integration, as well examples of three areas where intersectionality has been embraced – HIV/AIDS and MHPSS, service delivery during the COVID-19 pandemic and the One Health approach. Key boundary terminologies have been identified, highlighting those that foster shared meaning and unity across the sectors, as well as those that have the potential to cause divisions or misunderstandings.

The programming landscape has been laid out with an analysis of where the key areas of intersection lie across MHPSS, climate, gender equality and DRR programming, and emerging evidence-based interventions have been listed. Of note, areas of potential synergies have been highlighted, such as the need to acknowledge and quantify the mental health co-benefits of climate action and the role that proactive climate action can play in empowering women, girls, boys and SGM individuals. Key gaps in programming are underpinned by an unaddressed global mental health burden and span the programming cycle from needs assessments not routinely addressing intersectionality and climate risk assessments not routinely measuring

the gendered mental health impacts; to response planning where better gendered representation is required; to advocacy and resource mobilisation where limited financial resources for climate action and for MHPSS limit programming progress; to implementation where gender transformative approaches are not routinely implemented, there are considerable capacity gaps and where we need further innovation to plug key resource gaps; to MEAL where data limitations (see below) hamper programme improvements.

The challenges facing the current measurement of impact and progress across this intersection have been explored, highlighting issues around lack of data availability, study design, measurement metrics, data collection, dissemination of evidence and availability of resources. Key measurement frameworks across the relevant sectors have been presented, and recommendations for next steps in developing new indicators that monitor progress across the intersection have been presented, including suggestions for targeted action to advocate for improved intersectional MEAL in key frameworks and guidance documents that are due to be reviewed such as the Sendai Framework and the WHO Gender Mainstreaming for Climate and Health Adaptation Programming document.

Finally, priorities for action across research, advocacy, policy development, funding and programming have been synthesised, and a summary of key potential entry points for engagement on this intersection with Danida have been presented, highlighting the need for an intersectional approach both in terms of programming as well as internally in terms of how organisations such as SC work across disciplines to tackle these problems.

This is a complex intersection with multiple overlapping pathways of exposure and outcome and with a broad array of stakeholders that need to collaborate going forward in order to drive high impact action that targets the root causes of gender inequality as well as shifting the dial on climate adaptation for the most vulnerable populations globally.

ANNEX 1: KEY DEFINITIONS

Adaptation	In <i>human systems</i> , the process of adjustment to actual or expected <i>climate</i> and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects IPCC Glossary Search .
Climate anxiety	Heightened emotional, mental or somatic distress in response to changes in the climate system (Climate Psychology Alliance, 2022).
Climate change	A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. IPCC Glossary Search
Climate mitigation	A human intervention to reduce emissions or enhance the sinks of greenhouse gases (GHGs) IPCC Glossary Search .
Climate resilience	Climate Resilience is where we aim to make adjustments in natural and human systems in response to actual or expected climate change and their effects on nature and people. For SC, Climate Resilience is principally about practical measures in programming, policy and advocacy which reduce vulnerabilities and increase resilience of children and their communities from the negative effects of climate change. Climate Resilience Save the Children
Gender equality	Gender equality refers to the absence of discrimination on the basis of sex and gender. For SC, gender equality is when one sex or gender is not routinely privileged or prioritized over another, and all people are recognized, respected and valued for their capacities and potential as individuals and members of society. (Gender Equality Save the Children)
Gender norms	Gender norms are a subset of social norms, meaning that they are informal rules and shared social expectations that distinguish expected behaviour on the basis of gender (UNICEF, 2022c)
Intersectionality	Intersectionality is a concept and a theoretical framework that facilitates comprehension of the ways in which social identities overlap and create compounding experiences of discrimination and concurrent forms of oppression based on two or more grounds. UNOCHA
Mental health	A state of (psychological) well-being (not merely the absence of mental disorder) in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (IASC, 2021b)
MHPSS	The term MHPSS refers to any type of local or outside support that aims to protect or promote psychosocial wellbeing and prevent or treat mental health conditions. (IASC, 2007)
Psychosocial well-being	The psychosocial dimension of well-being. Although there is no widely agreed definition, practitioners often use the adjective “psychosocial” to describe the interaction between social aspects (such as interpersonal relationships and social connections, social resources, social norms, social values, social roles, community life, spiritual and religious life) and psychological aspects (such as emotions, thoughts, behaviours, knowledge and coping strategies) that contribute to overall well-being (IASC, 2021b)

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

Social norms	Social norms can be defined as informal rules about how people should act (UNICEF, 2022c)
Solastalgia	Solastalgia is the distress that is produced by environmental change impacting on people while they are directly connected to their home environment (Albrecht G et al., 2007)

ANNEX 2: KEY GLOBAL FRAMEWORKS

MHPSS Programming

The IASC Guidelines on MHPSS in Emergency Settings

Overview: These 2007 guidelines provide a comprehensive framework for humanitarian actors to address MHPSS needs of affected populations during emergencies. Developed by IASC, these guidelines offer multi-sectoral, inter-agency guidance and tools for effective coordination and response. The guidelines aim to improve the quality and predictability of MHPSS in emergency settings, ensuring that affected individuals receive the care they need (IASC, 2007). The guidelines emphasise the importance of strengthening community-based support, using multi-layered interventions, mainstreaming MHPSS approach across different sectors, integrating MHPSS into existing structures and systems, and coordinating services. (Save the Children International, 2023). A key component is the intervention pyramid of MHPSS in emergencies presented in Section 1.1.

Gender equality

- Principles include a rights-based, inclusive approach stipulating non-discrimination and pro-active inclusion and specifically mentioning gender
- Gender considerations are mainstreamed throughout
- Do's and Don'ts section includes instructions to pay attention to gender and not to assume that emergencies affect men and women (or boys and girls) in exactly the same way, or that programmes designed for men will be of equal help or accessibility for women.
- Encourages gender-disaggregated reporting

Climate change

- Natural disasters and conflict are noted as the two key drivers of humanitarian crises
- However, climate change itself is not mentioned.
- Many of the direct and indirect impacts are covered in the domains and action sheets.

Programming guidance relevant to the direct and indirect impacts outlined in section 1 of this document

- Prevent and manage problems in MH and psychosocial well-being among staff and volunteers
- Facilitate conditions for appropriate communal cultural, spiritual and religious healing practices
- Facilitate support for young children (0–8 years) and their caregivers
- Provide access to care for people with severe mental disorders
- Strengthen access to safe and supportive education
- Implement strategies to prevent violence, including SGBV
- Identify, monitor, prevent and respond to protection threats and failures through social protection & legal protection
- Include specific social considerations (safe, dignified, culturally and socially appropriate assistance) in site planning and shelter provision, in a coordinated manner
- Include specific social considerations (safe and culturally appropriate access for all in dignity) in the provision of water and sanitation

MHPSS Minimum Service Package

Overview: The MHPSS MSP is an intersectoral framework designed to guide humanitarian actors in providing essential MHPSS during emergencies. It outlines high-priority activities based on existing guidelines, evidence, and expert consensus, aiming to improve coordination, predictability, efficiency, and quality of responses. The MSP helps address the needs of affected populations by promoting collaboration across sectors, identifying gaps in services, and ensuring that MHPSS are integrated into humanitarian efforts (IASC, 2022). The Gap Analysis Tool assesses and maps current implementation to identify gaps and prioritise action (see section 4 below where this is reviewed in greater depth).

Gender equality

- Rights-based, inclusive approach – non-discrimination and pro-active inclusion.

Climate change

- Doesn't specifically mention climate change in itself, however it does recognise natural disasters as a type of humanitarian emergency

Analysis of the Intersection between MHPSS, Climate Change and Gender Equality

- Stipulates that MHPSS programmes must consider the specific needs of women, men, boys and girls with respect to both biological sex differences and sociocultural gender differences
- Encourages humanitarian actors to challenge harmful socio-cultural norms through ensuring activities consider gender-specific barriers to access and protection issues
- Stresses this also relates to men and boys (not just women and girls) and the impact of masculine expectations can have on behaviour and mental wellbeing.

requiring MHPSS programming and many of the direct and indirect impacts are covered in the activities and considerations.

Programming guidance relevant to the direct and indirect impacts outlined in section 2 of this document

- Early Childhood Development (ECD) and support for children
- Support for caregivers & education providers
- Women and girls' safe spaces
- Support for survivors of SGBV and IPV – including male, child and adolescent survivors of sexual violence
- Support for people with pre-existing MH conditions
- Integration with clinical case management of infectious diseases
- Nutrition & WASH-related considerations
- Food security & livelihoods (FSL) considerations
- Camp coordination and camp management considerations
- Considerations for IDPs and migrants
- Considerations around staff wellbeing and MH

UNICEF Global Multisectoral Operational Framework for MHPSS of Children, Adolescents and Caregivers Across Settings

Overview: This framework for MHPSS aims to improve the MH and psychosocial wellbeing of children, adolescents, and caregivers across various settings. It provides guidance for UNICEF staff and partners to develop programs using the social ecological model and the continuum of care, including prevention, promotion, and treatment. The framework emphasises collaboration across health, social welfare, child protection, and education sectors to design, implement, and evaluate locally relevant, comprehensive, and sustainable MHPSS strategies (UNICEF, 2022b).

Gender equality

- Rights and equity-based approach in line with broader UNICEF principles
- There is a section on gender as part of the MHPSS principles, standards and approaches section.
- Recognition that MHPSS programming needs to be developed based on a clear understanding of the gender-related causes of MH and psychosocial problems and the barriers to accessing care and support – specially mentioning adolescence as a period when gender is key and the specific needs of non-binary individuals.
- Social and gender norms are included as part of the enabling environment

Climate change

- Intensifying natural disasters and climate change are referenced as determinants of MH and psychosocial wellbeing and included in the Theory of Change.

Programming guidance relevant to the direct and indirect impacts outlined in section 2 of this document

- Interventions related to maternal MH and psychosocial wellbeing
- Nutrition, disease outbreaks, conflict, displacement all treated as a determinant of MH and wellbeing and considered within guidance throughout
- Ensure basic needs (shelter, food, WASH) are provided in ways that respect the culture, dignity and agency of children and families and are sensitive to children's developmental needs.
- Access to MHPSS, SRH services, and protection services for child and adolescent survivors of GBV

Save the children MHPSS Technical Guidance

Overview: The SC MHPSS Technical Guidance provides comprehensive support for mainstreaming and integrating MHPSS into programming across various sectors. Developed to assist Save the Children staff and partners, this guidance outlines concrete actions to implement the organization's MHPSS strategy, ensuring that interventions are safe, effective, and consistent with global standards. It emphasizes the importance of addressing the MH and psychosocial needs of children and adults in all contexts, including humanitarian, development, and peace settings (Save the Children International, 2023).

Gender equality

- Core principles include a human rights and child rights focus
- Key principle related to participation – including children who identify as LGBTQI+
- Gender is mainstreamed comprehensively throughout. There are specific sections on involving men and boys.

Climate change

- Climate change is mentioned in relation to the broader SC Strategy to 2024 as one of the key threats to children.
- Natural disasters are mentioned as a driver of MHPSS

Programming guidance relevant to the direct and indirect impacts outlined in section 2 of this document

- MHPSS approaches relevant to SGBV/IPV, including impacts on male survivors, children and caregivers
- MHPSS approaches relevant to Child, early, and forced marriage and unions (CEFMU)
- Considerations around supporting staff wellbeing
- Sections on integrating MHPSS into nutrition, health, FSL, WASH, education
- Sections on children on the move and shelter and settlements

Climate Programming

Global Climate Infrastructure

The Intergovernmental Panel on Climate Change: The IPCC is a United Nations body responsible for assessing the science related to climate change. It provides comprehensive reports on the state of scientific, technical, and socio-economic knowledge on climate change, its impacts, future risks, and options for reducing its rate. The IPCC's reports are critical for informing global policy and action on climate change, offering a robust scientific basis for decision-making.

Gender (IPCC, 2024)

- The IPCC has made significant strides in addressing gender through its Gender Policy and Implementation Plan, adopted in 2020.
- The IPCC also established a Gender Action Team (GAT) to oversee the implementation of this plan.
- This includes conducting surveys on gender, diversity, and inclusivity, and developing a code of conduct to address complaints and promote a respectful, inclusive environment.

MHPSS (IPCC, 2023)

- The IPCC reports have increasingly recognized the impact of climate change on MH and wellbeing.
- The Sixth Assessment Report (AR6) highlights that climate change affects MH through multiple pathways, including psychological trauma from extreme weather events and longer-term adverse impacts of rising temperatures

UNFCCC & The Paris Agreement: The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty adopted in 1992. Its main objective is to stabilise GHG concentrations in the atmosphere at a level that prevents dangerous human interference with the climate system. The UNFCCC provides a framework for negotiating specific international agreements, such as the Kyoto Protocol and the Paris Agreement, to combat climate change. The Paris Agreement, adopted in 2015, is a legally binding international treaty under the UNFCCC. Its central aim is to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius.

Gender (IPCC, 2024)

- The Paris Agreement explicitly mentions the importance of gender equality and the empowerment of women in its preamble and encourages Parties to respect, promote, and consider their respective obligations on gender equality when taking climate action.

MHPSS

- Although MH is not specifically mentioned, it is implicit in the Paris Agreement's pursuit of equity and the reduction of

- The UNFCCC has also established a dedicated agenda item on gender and climate change, which includes the Enhanced Lima Work Programme on Gender and its Gender Action Plan (GAP).
- These initiatives aim to improve gender balance in UNFCCC processes, increase the participation of women in climate decision-making, and support the development and implementation of gender-responsive climate policies
- Despite decades of efforts to integrate gender considerations within the UNFCCC, progress has been slow (van Daalen et al., 2024)
- Emphasis remains mainly on achieving a gender balance in climate governance, rather than exploring themes such as gender responsiveness, gender equality (van Daalen et al., 2024)

vulnerability factors
(Corvalan et al., 2022).

The Conference of Parties (COP): The COP is the supreme decision-making body of the UNFCCC. It brings together representatives from all countries that are Parties to the Convention to review the implementation of the Convention and any other legal instruments that the COP adopts. The COP meets annually to assess progress, negotiate agreements, and take decisions necessary to promote the effective implementation of the Convention.

Points of intersection

Gender

- Establishment of the Lima Work Programme on Gender (LWPG) at COP 20 in 2014
- COP25 with the adoption of the Gender Action Plan (GAP) in 2019
- COP27 adopted an intermediate review of the GAP implementation and made amendments to address challenges and gaps
- COP28 saw the initiation of the final review of the enhanced LWPG and GAP
- COP29 review of the enhanced LWPG and GAP & gender-responsive climate finance
- Gender Day events and high-level dialogues on gender are key features of recent COPs

MHPSS

- Until recently MH was largely absent from high-level climate policy discourse
- At COP28 in 2023, health (and MH as a component of this) was included as part of the first ever Health Day at a COP (see below).
- COP28: MH was integrated into the Climate and Health Declaration, signed by 151 countries (excerpt below):
 - *Promoting a comprehensive response to address the impacts of climate change on health, including, for example, mental health and psychosocial wellbeing, loss of traditional medicinal knowledge, loss of livelihoods and culture, and climate-induced displacement and migration.*
- COP29: climate finance for health (including MHPSS)

Loss and Damage: L&D refers to the negative consequences of climate change that cannot be avoided through mitigation or adaptation efforts. The concept of L&D recognises that some climate change effects are inevitable and disproportionately affect vulnerable communities, particularly in developing countries. These unavoidable impacts of climate change include economic and NELDs such as impacts on infrastructure, livelihoods, biodiversity, cultural heritage, and human health. Both economic and non-economic losses impact on MH, however NELD increasingly affects physical health and causes emotional distress in populations facing climate extremes. L&D can severely weaken health systems by destroying infrastructure, displacing workers, disrupting supply chains, and overwhelming services – especially in LMICs facing disproportionate health burdens (WHO, 2024). At COP27 in 2022, a Loss and Damage Fund was established and at COP28 pledges were made to the fund totalling USD \$770million, however it remains to be fully operationalised.

Gender

- L&D have differential impacts for both women and men – as demonstrated by this analysis.
- An example could be the unpaid labour of women in families and communities is often not taken into account, but it is an NELD.
- Although this is recognised within L&D discourse, there remains much to be done to

MHPSS

- Economic L&D impact on MH outcomes through driving poverty and negative coping mechanisms that often result in significant protection risks for children (CEFMU / exploitation etc.).
- MHPSS itself would be counted as an NELD sub-category to the health category for individuals (see diagram below)
- However, other aspects of NELDs such as loss of cultural heritage and biodiversity also have a significant impact on MH and wellbeing.
- Invisible impacts, such as MH issues arising from climate-induced stress and displacement, often escape the attention of policymakers. Quantifying them is the first step to addressing them (Bharadwaj et al., 2024). A

ensure these are not overlooked during the operationalisation of the L&D Fund.

methodology for doing this has been developed by Bharadwaj and colleagues called Comprehensive Climate Impact Quantification (C-CIQ) – please see section 5 for further information.

- There is a window of opportunity to advocate for comprehensive inclusion of MHPSS impacts under the L&D Fund.

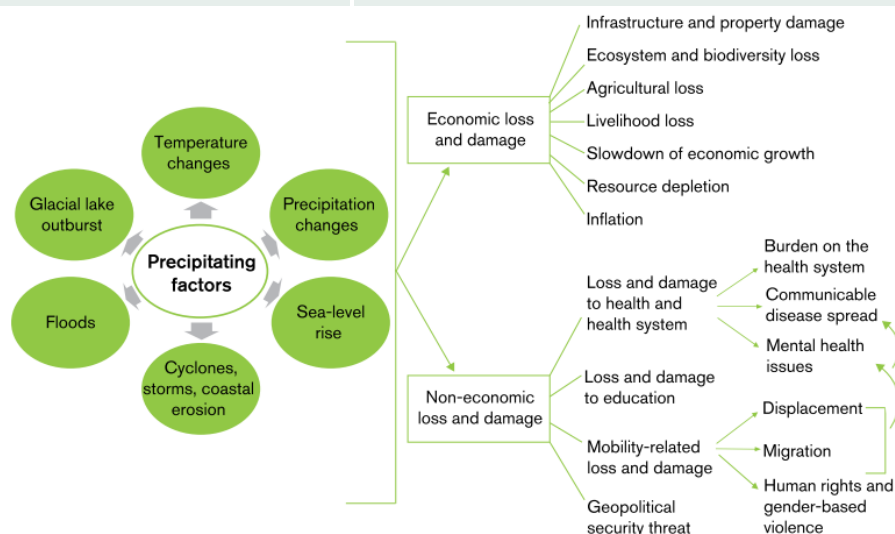


Figure 15: Domains of analysis under the C-CIQ methodology for quantifying Loss and Damage (Bharadwaj et al., 2024)

The Alliance for Transformative Action on Climate and Health (ATACH) and the COP26 Health Commitments: The COP26 Health Commitments were a set of pledges made by countries to address the health impacts of climate change. These commitments include developing climate-resilient health systems, conducting vulnerability and adaptation (V&A) assessments, and setting targets for reducing GHG emissions in the health sector. Over 90 countries have committed to these initiatives, with many aiming to achieve net-zero emissions by 2050 – see [Countries and areas - The Community of Practice for Climate Resilient and Low Carbon Sustainable Health Systems](#) for further information.

The ATACH is a global initiative launched during COP26, led by the WHO, the UK government, and other partners. ATACH aims to build climate-resilient and low-carbon health systems, recognising the critical link between climate change and public health. The alliance brings together over 90 countries and numerous partners to share knowledge, promote best practices, and drive action on climate and health.

Points of intersection: gender is very much a part of all the WHO guidance on developing the relevant health sector documents detailed under the COP26 Health Commitments. MH is included as a key component as well but is often overlooked (see below for more specifics).

National Level Policies and Plans (NDCs / NAPs / HNAPs)

Nationally Determined Contributions: NDCs are climate action plans submitted by countries under the Paris Agreement, detailing their efforts to reduce national emissions and adapt to the impacts of climate change. Each country outlines specific targets and measures they intend to implement to contribute to global climate goals. NDCs are updated and strengthened over time, reflecting increasing ambition and progress.

Gender (Kivioja et al., 2023)

- Important progress has been made in improving the gender-responsiveness and inclusiveness of NDCs and addressing integrated considerations
- In 2021, 78% of NDCs submitted included explicit mention of women and/or

MHPSS

- A 2023 review found that only 3% of NDCs mentioned MH compared to 28% that included vector-borne diseases

The points below are taken from WHO guidance published ahead of COP29 on integrating health into NDCs (World Health Organization, 2024)

- MH and wellbeing is included as a sub-category to health within NDCs.
- It is recommended that NDCs incorporate quantitative estimates of current and future health impacts of climate change, including MH

gender (this was 32% in 2016)	▪ NDCs are mandated to report on co-benefits likely to result from mitigation actions across sectors and so the MH co-benefits should be included and quantified where possible (see section 3.3 below on co-benefits) ▪ Climate-sensitive health risks, including L&D, should be quantified. This may include loss of life as a result of climate extremes, and indirect L&D to health, such as MH impacts related to loss of cultural heritage and way of life.
▪ Twenty-six countries were found to have gender references in adaptation efforts for the health sector	

National Adaptation Plans: NAPs are strategic frameworks developed by countries to address the impacts of climate change. These plans outline priority actions, policies, and programmes that governments intend to implement to enhance resilience and reduce vulnerability to climate change. NAPs encompass various sectors, including agriculture, water resources, health, and infrastructure, ensuring a comprehensive approach to adaptation. Countries are including sector- or system-specific adaptation actions in overarching NAPs, some are developing separate sector-based adaptation plans, and some are doing both (WHO, 2021).

Gender	MHPSS
▪ A review by the IPCC indicated that gender was referenced in 95% of the 60 NAPs the review considered (UNFCCC, 2024a) ▪ Whilst gender may be referenced, few of the current plans consider gender in the institutional arrangements for adaptation, and in 2020 only one third of proposals to the Green Climate Fund globally mentioned the establishment of institutional arrangements to address gender (Kivioja et al., 2023)	▪ A 2024 analysis of 160 NAPs found that no country addressed children's direct needs in the domain of MH despite the evidence base supporting this (Zangerl et al., 2024) ▪ There is a tendency in NAPs to list aspects of country-level impacts, but they generally do not include inter-relationships between climate change and MH. (Connecting Climate Minds, 2024b) ▪ A WHO review of 19 NAPs in 2021 found that all NAPs highlight health as a high-priority sector vulnerable to climate change. The extent to which the health risks are considered and addressed, however, varied (WHO, 2021) ▪ Institutional arrangements for NAP processes are being established in countries. Health-sector, and within that, MHPSS representation, is critical.

Health National Adaptation Plans: HNAPs are strategic frameworks developed by countries to address the health impacts of climate change. They are often nested under NAPs but are sometimes stand-alone documents. These plans outline priority actions, policies, and programmes aimed at enhancing public health resilience and reducing vulnerability to climate-related risks. As of December 2023, 52% of WHO members that committed to building climate-resilient health systems through the COP26 Health Programme reported having developed an HNAP, up from just 6% the year before (Romanello et al., 2024).

V&A assessments form the evidence base upon which HNAPs should be developed. This is a key tool for ensuring both a gender transformational approach as well as leveraging greater attention and resources towards addressing the impacts of climate change on MH and wellbeing in HNAPs. See section 4 for further information on health-focused V&A assessments.

Gender	MHPSS
▪ Gender features within the WHO guidelines on developing HNAPs under considerations of vulnerability factors to design and target adaptation actions (World Health Organization, 2021b) ▪ A 2010 WHO guidance document on mainstreaming gender within health adaptation to climate change proposes two main tools for ensuring gender is properly reflected – gender analysis and a checklist that includes practical recommendations on how to mainstream gender for each of the phases of the programme cycle (World Health Organization, 2012).	▪ In a 2021 WHO survey where 95 countries provided data, only nine had included MHPSS in their national health and climate change plans (WHO, 2022). ▪ There is a need to advocate for more directed case studies and NAP planning to focus on the MH impacts of climate change. (Connecting Climate Minds, 2024b)

Gender Equality Programming

Gender Transformative Programming

Overview: Gender transformative programming aims to address and redress gender inequalities by challenging and changing harmful gender norms, roles, and power dynamics. It involves engaging communities in critical reflection about gender inequalities and promoting positive, equitable behaviours and norms. This approach seeks to transform underlying structures, policies, and systems that sustain gender inequality, fostering lasting change and empowerment for disadvantaged populations. A gender-transformative approach to climate change seeks to build lasting, positive development outcomes based on equality among women, men, girls, boys and gender-diverse individuals. It also aims to engage communities in climate action to challenge gender norms, promote social and political influence positions for women, and address power imbalances between genders. (Clements, 2024).

MHPSS (drawn from UNICEF's Technical Note on Gender in Adolescent Mental Health, 2022)

- MHPSS programming can be gender transformational by actively challenging and changing harmful gender norms, roles, and power dynamics that contribute to gender inequality through the MHPSS interventions themselves.
- Distinguish between immediate, underlying, and structural causes of disparities in MHPSS
- Make additional efforts to reach out to diverse and underrepresented adolescents, including LGBTIQ+ adolescents and pregnant and parenting adolescents.
- Ensure that communication materials on adolescent MH do not perpetuate or exacerbate harmful gender norms
- Collect and disaggregate data on depression, anxiety, suicidality, and functional impairment by sex and age in order to ensure progress towards equitable MHPSS outcomes.

Climate change

- The Gender Continuum for Climate Action relates to this framework and is presented in section 2.1.
- UNICEF has identified nine key elements for a gender-transformative approach that can apply to climate change programming (Clements, 2024):
 1. Work to challenge the structural barriers that uphold gender inequality.
 2. Build the individual and collective agency of women, girls and people of diverse gender identities.
 3. Ensure that girls and women in all their diversity and people of non-conforming gender identity, especially marginalized groups, have a voice in and can influence and/or lead programme implementation, measurement, and evaluation.
 4. Work with boys and men to embrace gender equality.
 5. Work through an intersectional lens
 6. Take a life course and intergenerational perspective.
 7. Work at all levels including policies and laws, systems, services, communities, families and individuals
 8. Work at multi-sectoral and intersectoral levels.
 9. Focus on approaches that will have an impact at scale.

Save the Children Gender Equality Marker

Overview: SC's Gender Equality Marker tool is an adaptation of the widely used IASC Gender Marker. It is used as a primary tool to measure the gender sensitivity and transformative potential of their program proposals. The GEM evaluates whether new program proposals are gender-sensitive (considering gender differences) or gender-transformative (challenging and changing harmful gender norms). This tool is applied to all concept notes and proposals before submission to donors, ensuring that gender considerations are integrated from the outset. By using the GEM, SC aims to drive positive, transformative results and promote gender equality across their programming (Save the Children International, 2017).

Points of intersection: the marker can be used across any/all programmatic areas to evaluate where a programme or intervention sits on the gender continuum and to identify specific areas where improvements could be made to increase the gender transformative power. Therefore, it relates to both MHPSS and climate contexts and has been used for both, however there are no examples that have come to light of it being used on an integrated MHPSS/climate intervention to ensure the gender focus (although there may well be one out there).

Save the Children Gender and Power Analysis Tool

Overview: SC's GAP Analysis Tool is designed to examine, understand, and address discrimination and inequality that prevent children, their families, and communities from claiming their full and equal rights. The GAP Analysis is a type of action research that investigates how gender and power inequalities intersect, helping staff and partners understand the types and depth of discrimination in each context. This tool is reviewed in more depth in Section 5 as it is a key measurement tool.

Points of intersection: this analytical tool is designed to be used across the various programming sectors at SC so is not intended to be sector specific. Further information on the tool and key points of intersection can be found in Section 5.

IASC Guidelines on Integrating Gender-based Violence Interventions in Humanitarian Action

Overview: These IASC guidelines provide sector-specific guidance around how to prevent and respond to GBV in humanitarian emergencies. They emphasise the importance of integrating GBV risk mitigation across multiple sectors (thematic areas) to ensure safety, dignity and wellbeing for affected populations, particularly women and girls. The guidelines includes guidance, checklists, case studies, lessons learned and M&E tools specific to each thematic area.

Points of intersection: The guidelines include a section explaining MHPSS and each thematic section includes core MHPSS considerations. Although climate change is not references as a driver of GBV specifically, the various thematic areas align with many of the direct impacts of climate change relevant to this intersection, including camp coordination and management, child protection, education, health, WASH etc. (IASC, 2015)

Disaster Risk Reduction Programming

“The concept of adapting to mental health challenges is not new, as the field of disaster risk reduction has long acknowledged its significance” (Zangerl et al., 2024)

The Sendai Framework: The Sendai Framework for Disaster Risk Reduction 2015-2030 is a global agreement adopted by United Nations member states in 2015. It aims to substantially reduce disaster risk and losses in lives, livelihoods, and health by promoting a more resilient world. The framework outlines seven targets and four priorities for action:

1. Understanding disaster risk: Enhance knowledge of disaster risk in all its dimensions.
2. Strengthening disaster risk governance: Improve disaster risk management and governance.
3. Investing in disaster reduction: Increase investment in DRR for resilience.
4. Enhancing disaster preparedness: Improve preparedness for effective response and recovery.

Climate change and variability and environmental degradation are recognized by the Sendai Framework as being among the many drivers of disaster risk.

Gender	MHPSS
▪ Formally recognises women’s unique vulnerabilities to climate change and furthermore identifies them as important stakeholders to be engaged in creating and implementing risk reduction plans. ▪ Zaidi and Fordham argue that although the framework has made headway in promoting the inclusion of women and girls in disaster policy and programming, on the whole it represents a missed opportunity for addressing fundamental gender-based issues in DRR. Weaknesses highlighted include the lack of a definition on gender and thereby failing to acknowledge the differentiated vulnerability of men, boys, and other gender groups in specific disaster contexts (Zaidi & Fordham, 2021) ▪ Brown and colleagues explored gender integration in DRR in Nepal and Peru and found that marginalised gender groups risk being excluded from DRR policies, and decision-making as DRR processes are not currently designed to enable them to engage. They participate less because of their domestic roles, lack of autonomy, mobility challenges, social isolation and persecution, and gendered assumptions (e.g. that men represent a household) (Brown et al., 2019)	▪ Despite MHPSS being only briefly mentioned in priority four of the Sendai Framework (which focuses on recovery from crises), strong arguments exist for integrating MHPSS within all areas of DRR (Corvalan et al., 2022) ▪ Many organisations and governments operating under the Sendai Framework provide trauma-informed resources to support MH in the aftermath of climate events (J. L. Augustinavicius et al., 2021) ▪ As one key informant pointed out, the next iteration of the Sendai Framework is due in 2030 so there is an advocacy opportunity to leverage greater profile of MHPSS within the detail.

In 2021 The IASC MHPSS Reference Group produced a technical note linking DRR and MHPSS to support the delivery of a priority set of actions to reduce suffering and improve MH and psychosocial well-being across and within DRR activities (IASC Reference Group on Mental Health and Psychosocial Support in Emergency Settings, 2021). The document provides actions linking MHPSS and DRR for every outcome area of the Sendai

Framework. This has a section on inclusivity in which the need for gender inclusive strategies is highlighted. It also provides guidance on indicators which has been explored later in this report in section 4.

Early Warning for All: The EW4A initiative, launched by the United Nations in 2022, aims to ensure that everyone on earth is protected from hazardous weather, water, or climate events through life-saving EWS by the end of 2027. The initiative focuses on building resilience and reducing vulnerability, especially in least developed countries and small island developing states. It emphasises the importance of multi-hazard EWS , which are cost-effective tools that save lives, reduce economic losses, and support long-term sustainability.

The initiative is built on four pillars to support countries in building/operating multi-hazard EWS:

1. Disaster risk knowledge
2. Detection, observation, monitoring, analysis, and forecasting
3. Warning dissemination and communication
4. Preparedness and response capabilities

Gender

- EW4A highlights the need to ensure that EWS are gender responsive. This means recognizing that men and women access, process, interpret, and respond to information differently due to social and cultural gender relations.
- The initiative promotes the involvement of women in EWS, as they often require specific communication strategies and are connected to different social networks

MHPSS

- There is no explicit link to MHPSS within this initiative however, as one key informant highlighted, the four pillars are key to this intersection.

ANNEX 3: STAKEHOLDER ROLES FOR INTEGRATION

Key recommendations for strengthening integration have been built into the opportunities for action section to streamline into one set of recommendations. This section provides a summary breakdown of the key stakeholders of relevance to the MHPSS / climate change / gender equality intersection and outlines their key roles and responsibilities in driving forwards integrated approaches targeting action across the intersection. The table is adapted from a similar table in the 2021 Technical Note that IASC published linking DRR and MHPSS (IASC, 2021a). This level of clarity is required for effective collaboration between the diverse stakeholder groups that comprise this complex intersection.

Stakeholder Group	Roles and Responsibilities
Government Stakeholders	
Ministry of Health (MoH)	Designated focal point for MHPSS to lead internal and cross-sector collaboration. Internal focus: MHPSS service delivery in line with national standards and protocols, ensure policy and planning coherence, collaborate with other MoH departments such as nutrition, infectious disease surveillance and response, environmental health, WASH, SRHR, maternal and child health, ECD. External focus: coordination with other Ministries listed here & DRR stakeholders, civil society and the private sector; leverage external funding opportunities; advocacy and communication. Updating of medical training curricula in collaboration with professional medical associations.
Ministry of Environment (MoEnv.)	Designated focal point for climate change to lead internal and cross-sector collaboration. Internal focus: ensure policy and planning coherence, collaborate with other MoEnv. departments such as clean energy, air quality, water and resource management, WASH, biodiversity and conservation, waste management. External focus: coordination with other Ministries listed here and civil society; leverage external funding opportunities, advocacy and communication.
Ministry of Women's Affairs (MoWA)/ Gender Equality	Designated focal point for gender equality to lead internal and cross-sector collaboration. Internal focus: ensure policy and planning coherence with a focus on gender transformative approaches, collaborate with other MoWA departments such as economic empowerment, violence against women and girls, education and training, legal and policy. External focus: coordination with other Ministries listed here, and civil society; leverage external funding opportunities; advocacy and communication
Ministry of Education (MoE)	Participation in multi-sectoral coordination mechanisms for climate (mitigation, adaptation, L&D), DRR and humanitarian response. Updates to relevant training and education curricula to increase the knowledge base around the intersection of climate, MHPSS and gender. Establishment and oversight of school environment clubs to engage adolescents in climate action and foster social cohesion to mitigate the risk of climate anxiety.
Ministry of Welfare and Social Services (MoWSS)	Participation in multi-sectoral coordination mechanisms for climate (mitigation, adaptation, L&D), DRR and humanitarian response. Coordination with other key social protection actors such as the police, legal entities and humanitarian actors. Social protection service delivery, with a focus on targeting SGBV and IPV and other forms of exploitation.
Ministry of Finance (MoF)	Coordination with all the above ministries to undertake comprehensive gender-transformative budgeting and financial management. Liaising with focal points to ensure specific budget lines for necessary activities.
Civil Society Organisations	
CSOs from health, education, climate change, welfare and child protection	Ensuring the necessary consideration and inclusion of aspects of MHPSS, climate and gender equality within and across sectors. Participation in cross-sectoral technical working groups. Citizen engagement and social accountability to hold government and other actors to account for service delivery across the intersection.
International agencies and organisations: specifically, those involved in DRR, emergency relief, EWS, social protection and healthcare delivery.	

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Humanitarian organisations	Providing technical and human resources to implement integrated humanitarian programmes that target the intersection between MHPSS, climate and gender. Documentation and sharing of lessons, best practices and reporting on integration. Participation in cross-sectoral collaboration through cluster meetings, humanitarian coordinators and camp coordination - Cluster/sector coordinators are key to this coordination. Coordination on key issues across the humanitarian – development continuum.
Development Partners	Providing technical and human resources to implement integrated development programmes that target the intersection between MHPSS, climate and gender. Documentation and sharing of lessons, best practices and reporting on integration. Participation in cross-sectoral collaboration through technical working groups and government collaboration. Coordination on key issues across the humanitarian – development continuum.
Funders	Provision of financial resources for integrated interventions targeting the intersection. Longer term financing strategies that cover the full spectrum of climate action (mitigation, adaptation and L&D) as well as MHPSS and gender transformative programming. Global advocacy on the need for an integrated intersectional approach.
Other types of stakeholders	
Universities and researchers	Providing guidance and support for obtaining funding, developing programming consistent with evidence, testing its implementation and effectiveness at all levels, and disseminating knowledge to the wider global community. Driving forwards a comprehensive research agenda that plugs the gaps identified and presented in Section 6 of this report on areas for further research.
Private sector	Engaging in efforts to mobilise and raise awareness with respect to the MHPSS, climate and gender intersection. Sharing knowledge, expertise and resources and encouraging innovation for advancing integrated service delivery.
Media agencies and journalists	Providing responsible media coverage of traumatic events in line with best practice recommendations and in line with evidence-based messaging. Disseminating accurate information about disaster risk, climate change, mental health and wellbeing, and the specific impacts for different genders and age groups.

ANNEX 4: BIBLIOGRAPHY

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