CLIMATE CHANGE AND MENTAL HEALTH – TWO INEXTRICABLY LINKED GLOBAL CRISES

A Community Paper of the Global Health Hub Germany Community on Global Mental Health

About the authors
This policy paper reflects the results of the discussions in the Hub Community. Written contributions to this policy paper were made by: Franziska Laporte Uribe and Johanna Löloff (lead authors), Jinan Abi Jumaa, Michael Wirsching, Nicole Votruba, Elliot Brown (Co-authors); contributions to this policy brief were also made by the following members: Kevin Dadaczynski, Florian Fischer, Solveig Kemna, and Rustica Tembele, Hub Community on Climate Change & Health, Hub Community on Global Health & Migration, and Hub Community on Global Mental Health.

Introduction

We, members of the Global Health Hub Germany, welcome the initiative from the Federal Government to address connections between the environment, climate change and health in a holistic way [1]. We are grateful for the opportunity to contribute our knowledge and expertise. In particular, we want to give space to the perspectives of non-governmental actors (or groups of actors) and hope that this marks the beginning of a collaboration between both scientists and industry-experts as well as "experts-by-experience", i.e. those affected by climate change and/or living with mental health concerns.

In this policy brief, we want to focus on two central themes:

1. The climate crisis as also a crisis of mental health that requires transdisciplinary thinking and collaboration at all levels.
2. Examples of good practice exist both nationally and internationally that enable us to learn from each other and guide the implementation of actions.

The climate crisis is also a crisis of mental health

Climate change is currently considered the greatest threat to modern humanity – partly because climate-related crises can lead to the loss of sources of income and serious disruptions to healthcare systems [2]. Worldwide, climate change is changing both the extent and frequency of weather events such as floods, droughts, heat waves and wildfires [3]. The increase in extreme climate events also increases the risk of disease, for example through the spread of new emerging infectious diseases, which are favored by ecosystem damage, poverty, poor hygiene conditions and overuse of antibiotics [3].

Evidence suggests that climate change has a negative impact on mental health as well as physical and social health. The impacts can range from increases in depression, anxiety and trauma-related disorders, to consequences such as food shortages, economic crises and involuntary migration, all of which can contribute to stress and climate anxiety [4, 5]. Events that are related to climate change and where a negative effect on mental health could be observed include: loss of land and home, loss of autonomy and control, loss of personal and professional identity, feelings of helplessness and hopelessness and strains on social relationships through the loss of social networks due to climate migration [6, 7]. Forced migration as a result of climate change has also increasingly become a subject of the public debate. Migration that is forced by sudden or progressive environmental changes and the associated losses and uncertainties, also impacts heavily on mental health. A quote from one of the members of the Hub Community on Global Mental Health illustrates this:

„I have seen this happening in Tanzania where people are being moved out of Ngorongoro to another place and the impact caused on these people. I know it is not related so much to climate change but if you look deep into it, it is …".

To meet the mental health needs of displaced populations, a comprehensive approach is needed that includes access to mental health services, psychosocial support, community-based interventions, and efforts to address the root causes of displacement. It is crucial for governments and humanitarian organizations to prioritize mental health support as part of their response to displacement crises. In Germany, an increase in mental disorders after extreme weather events, an increased suicide risk and increased aggressive behavior at higher temperatures have been observed [8]. However, the underlying causes and mechanisms of interaction have not yet been sufficiently understood, as there is still a lack of interdisciplinary research that investigates the relationship between climate change and mental health [9, 10]. In the next section, two particularly vulnerable groups will be discussed.

Adolescents and young adults

There is initial evidence that phenomena such as eco-stress and climate anxiety are increasing among adolescents and young adults, regardless of whether they have previously come into direct contact with the more extreme consequences of climate change [11]. A study commissioned by the German Federal Environmental Agency (UBA) and the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) showed that young people in Germany reacted to the threatening effects of climate change with negative emotions such as fear, sadness, anger and a sense of injustice [12]. In the same study the authors also found that 26 % of the young people surveyed reported sleep problems and decreased motivation due to thinking about and worrying about climate change [12]. In addition, a study conducted on behalf of a German insurance company (the Barmer Ersatzkasse) found that 47 % of young people in Germany have a moderate level of fear of climate change, and 39 % have a high level of fear [13]. There are many reasons for this, including: increased vulnerability, where young people are particularly susceptible to psychological stress during and after extreme weather events; concerns about political inaction as young people believe that politicians are not taking enough responsibility for climate change; the perception of lack of power in the political system as young people feel that they can do little to stop climate change, even though they are the ones who will have to live with the consequences the longest [11].
Currently it is not well understood why young people experience an increased susceptibility towards negative mental health outcomes such as depression in the context of climate change. One

possible explanation is that their abilities to cope with climate induced stresses and their levels of resilience are not yet fully developed, so they have less of a buffer for mitigating the mental health risks of a flood or a drought [14].

Marginalized groups

Aggregated global data from 1980 to 2020 has shown that there are certain groups of people who are particularly affected by extreme weather events and therefore have the highest risk of negative mental health outcomes due to climate change. They include, amongst others, women, people with preexisting mental health conditions and people from a lower socioeconomic background [15]. For women, climate change can be a major stress factor associated with negative effects on pregnancy and child development. E.g., increasing temperatures and heat exposure are associated with physical stresses that in turn increase the risk for pregnant women to deliver too early and loose their new borns [14]. It is expected, that birth complications and poorer reproductive health, especially in low- and middle-income countries with tropical climates, will increase the risk of infant and maternal mortality in the future. As a result, climate change will have a significant impact on the health and survival of the next generation of already disadvantaged populations [16]. People with existing (mental) health impairments are particularly vulnerable due to potential disruptions in clinical or nursing care, such as during a pandemic or after a flood [7]. Also people with a lower socioeconomic status, such as small scale farmers, are often particularly severely impacted by climate change related disasters. The failure of crops and the loss of livestock can lead to the interruption of education as children may be required to help with household or farming activities. Increasing fears about the future and increases in depression rates can lead to more domestic violence and higher suicide rates [6, 7]. The impact on the mental health of marginalized groups is exacerbated by a lack of resilience or capacity to adapt to the effects of climate change. This in turn depends on factors such as social capital, sense of community, government support, access to resources, community preparedness, intersectoral/ transdisciplinary collaboration, communication and public relations, mental health literacy, and culturally relevant resources [17].

Key-messages:

While climate change and mental health issues are gaining increasing attention separately, there are still few efforts that address both, and especially the relationships between the two.

- It is crucial that these **two global crises are seen as inextricably linked** and that actors integrate them into their practice areas instead of working in silos [18].

- Therefore, **preventive measures** that go beyond disciplinary silos have the potential to respond to multiple needs simultaneously [19].

Good-practice examples exist both nationally and internationally that enable us to learn from each other and guide the implementation of actions

While historically the links between climate change and mental health have received little attention in research, policy and practice, there is now a growing awareness and understanding of the impact of climate change on mental health [20].

We have identified good/best-practice examples both nationally and internationally. Based on these, we recommend the following actions:

1.) Raising public awareness and knowledge of the impacts of climate change on mental health

2.) Strengthening individual and community resilience

3.) Strengthening transdisciplinary research on linking climate change and mental health

4.) Embedding mental health in climate protection and adaptation plans and considering climate-specific stressors in the planning of future mental health care

The German government is committed to a "partnership approach" in implementing the Global Health Strategy [1], and the German Strategy for Strengthening Resilience to Disasters puts people and their livelihoods at the center [21]. Therefore, the following recommendations are first and foremost addressed to the Federal Government, i.e. ministries, agencies, as well as other government institutions. However, building resilience is not only the responsibility of governments or single institutions, but a whole community or system can contribute.

Therefore, the recommendations are addressed to all members of our society and serve as a guide for other actors who want to participate, for example, in disaster risk management or health research. This ranges from private individuals to representatives from countries, municipalities, civil society, the private sector, science, and the media [21].

1. Raising public awareness and knowledge of the impacts of climate change on mental health

In addition to addressing physical health, there is an increasing need for the provision of mental health services and psychosocial support in preparing and responding to the mental health needs associated with climate change. Worldwide, there are initiatives on the rise to increase awareness and knowledge of the impacts

of climate change on mental health, to build mental health and psychosocial support preparedness capacities, and to reduce stigma related to seeking help for mental health conditions [10]. The following examples are by no means exhaustive but provide a glimpse of a global movement that might inspire local, regional and national stakeholders in Germany and abroad.

- **Climate-Cafés**.
These would serve as places for informal discussion groups on climate change and its effects on health, especially mental health. Climate cafés already exist in several major German cities, such as Bonn, Munich, and Frankfurt, as well as in some smaller towns. These discussion groups, often called Klima-Cafés, offer a platform for exchange between citizens, experts, and local stakeholders.
Example: The **Klima-Café Bonn** *is a joint project of the Bonn local groups Health For Future e.V. and Psychologists For Future e.V. It offers citizens of Bonn and the surrounding area the opportunity to exchange ideas on the topics of climate and sustainability in a relaxed and informal atmosphere. The meetings take place about once a month and are guided by the motto "Information, Exchange, Networking, and Engagement" [22].*

- **Target Group-Tailored Communication and Information Campaigns**.
This includes the development and dissemination of communication materials tailored to the needs of target groups (young adults, rural residents, indigenous people, etc.) on the consequences of climate change on mental health. In addition to public health information on climate change such as the Internet portal www.klima-mensch-gesundheit.de of the Federal Center for Health Education (BZgA) there will be further information on psychological stress and risks [23]. The topic should also be prioritised in the communication activities of the newly established Federal Institute for Prevention and Education in Medicine (BIPAM). In addition to classic text-based information formats, more engaging and entertaining formats should also be used in communication.
Example: The **Environment Platform Wales** *hosted a Mental Health Awareness Week in 2024 on the theme "Eco-Anxiety, Eco-Therapy and Mental Health"* [24]**.**

- **Social Media**.
Social media can be used to describe the human costs of climate change by linking personal stories with expert advice.
Example: **The Climate Mental Health Network (CMHN)**, *a nonprofit organization founded in 2021 to address the mental health consequences of climate change, is using creative media, such as film, Gen-Z-led podcasts, and sound meditations, to share lived experiences, elevate how young people feel about climate change, and document what it means to fight for the right to a livable planet. These stories have been translated into multiple languages and are being viewed in communities worldwide to inspire hope and rapid action. By uplifting the emotional experiences of individuals in advocacy, these efforts create room for authentic expression and provide*

entry points for new and sustained engagement, especially with young people [18].

- **Psychological training of healthcare professionals**.
Continued training of first aiders and other healthcare professionals in order to be able to recognize the consequences of climate change on mental health and to provide

psychological help after climate disasters.

*Example: As non-governmental and independent associations of healthcare professionals, **Health For Future** and **Psychologists For Future** are committed to providing effective climate and environmental protection from a health perspective [25, 26].*

2. Strengthening individual and community resilience

Community resilience: "[…] the abilities of a local community as a complex system, including actions and interactions of local agencies, natural and built environments, critical infrastructures, and citizens, to reduce, withstand, and even turn back from impacts of hazards, as well as the competence to adapt and thrive themselves to be less vulnerable to future disasters and emergencies." [27]

Although the effects of climate change on mental health are receiving more and more attention, a coherent cross-sectoral agenda is still lacking (in Germany and internationally). Based on a collaborative effort with 61 participants from 24 nations, Alford et al. have developed a consensus of recommendations for various stakeholders, some of which we endorse here [28].

- **Lived-Experience-Involvement.**
By involving those affected, empowerment can be strengthened and the effectiveness of measures can be increased. To do this, people with lived experience, who are particularly at risk from mental health issues as a result of climate change, together with mental health service providers, researchers, local communities and other relevant stakeholders should be actively involved in the development of policies related to climate change and mental health.
*Example: Recently, as part of the **Connecting Climate Minds** project, a lived-experience-engagement toolkit was developed, that draws upon the collective wisdom of experts and individuals with firsthand experience and offers*

practical guidance on navigating the complexities of livedexperience engagement in the context of climate change and mental health research and practice [29].

- **Climate adaptation community plans.**
With the help of community-based adaptation projects, the population's awareness to climate impacts and climate protection can be strengthened, and awareness of susceptibility to mental consequences can be raised. The goal would be to develop, support and implement climate protection and adaptation measures that are appropriate for the local context that are designed and supported by the community **(community-driven)** - and that also have positive effects on mental health (i.e.,

foster both psychological and climate resilience). Particular attention must also be paid to reducing existing inequalities and combating climate injustice [28].

*Example: One example from Aotearoa New Zealand shows, how **community-based participatory research** can be used to successfully develop resilience indicators by and for those who are directly concerned with resilience building, namely local people in the context of the New Zealand Disaster Resilience Strategy [30].*

- **Focusing on strengths and solutions**. This describes a solution-oriented view on the effects of climate change on mental health without catastrophizing and without focusing only on the devastating effects of climate change - but still not trivializing them.

  *Example: **Tap Elderly Women's Wisdom for Youth (TEWWY)** trains older women and network members in Tanzania to provide social and mental health support, using life stories, experiences and counseling skills to empower communities [31].*

  *Example: **The Toolkit for Youth on Adaptation & Leadership** equips young people with the knowledge and skills they need to engage specifically with climate adaptation policy, advocacy and political action. This toolkit is a project from the Global Center on Adaptation Youth Leadership Programs, which was developed by the CARE Climate Justice Center with financial support from Norad [32].*

- **Work in a culturally sensitive and differentiated manner**.
  This means, to recognize differences in the experiences and vulnerabilities of different populations, e.g. experiences of people in the Global South, refugees, those affected by migration, war, poverty and poor access to education, and to adjust actions accordingly. E.g., promoting **access to information and care for people with a migration background at the community level** is a fundamental area of intervention for prevention and health promotion to reduce inequalities. This means supporting the provision and dissemination of information about climate change and mental health in different languages, across social networks and in places that are inclusive of all relevant populations. The same applies to people who live with a disability. Although around 15 % of all people worldwide live with a disability, there is still a **lack of a disability inclusion in climate change adaptation plans** [33]. Therefore, in all measures, there is a need to pay particular attention to environmental justice and the protection of vulnerable groups [28].

- **Mobilize**.
  Individuals and communities should be encouraged to do something about the consequences of climate change on mental health. This can be achieved by indicating options for engagement and for taking action and responsibility. Also, networking activities are a key to knowledge translation within and across communities and should be encouraged and supported.

  *Example: In the context of the **Connecting Climate Minds** Project [20], in March 2024, stakeholders got together to finalize the Global Research and Action Agenda. The event was hybrid and open and*

accessible to everyone. Results from projects with regional communities, youth, small farmers and fishermen and indigenous communities were presented. There were also *opportunities for networking and exchange with others from the global climate change and mental health community.*

3. Strengthen transdisciplinary research linking climate change and mental health

As heatwaves, floods and other extreme weather events become more severe and frequent across Europe, it is crucial to understand the links between climate change and mental health. Research in this area should be expanded and encouraged. In addition, it is important to identify possible measures to protect mental well-being and to deal with the increasing demands on mental health.

- Launch **research programs** that are **interdisciplinary, transdisciplinary and participatory** to understand the mechanisms of interaction between climate change and mental health, and to identify possible influencing and resilience factors. Potentially vulnerable groups, such as children and young people, people with previous mental illnesses, women or people with high social and financial stress, should be involved right from the beginning as "**experts-by-experience**".

*Example: In a **transdisciplinary research project**, members of the Hub Community on Global Mental Health are investigating how the responsiveness of our health systems towards the specific needs of vulnerable populations (i.e., people living with dementia) can be improved, especially during times of crises. This research is conducted in close collaboration between academics, health care professionals, and emergency response professionals representing perspectives of **sociology, public health, health care, ethics, geography and disaster management** [34, 35].*

4. Embed mental health as an integral part of all climate protection and adaptation plans and take climate-specific challenges into account in future mental health care planning

The German Society for Psychiatry and Psychotherapy (DGPPN) recently published the so-called "Berlin Declaration" outlining demands for more climate and health protection. One main aim is to address the increasing need for psychiatric care due to the negative impact of climate change on mental health [23]. The Berlin Declaration includes, among others, the following requests addressing politicians, which we support in the form of recommendations.

- **Advocacy and politics.**
  Ensure that the impact of climate change on mental health is integrated into national strategies and action plans [25].

- **No-Health-without-Mental-Health.**
  Check proposed laws and existing funding in terms of a "mental health in all policies approach" for their health effects ("health check") and promote mental health literacy at the individual, organizational, municipal and professional levels [23].

- **Comprehensive heat action plans.**
  Parks, green spaces and green buildings have positive effects on mental health and climate protection. Introduce comprehensive heat action plans that:
  - inlcude interventions to protect mental health
  - take heat events into account in urban planning and hospital infrastructure, and
  - expand access to natural and semi-natural areas in a socially equitable manner [23].

- **Consideration of increasing care needs.**
  When planning future mental health care, consider the increasing and specific needs in the context of extreme weather events and climate-specific stress [23].

Conclusion

Climate change is considered the biggest threat to humanity and extreme climate events are inextricably linked to negative (mental) health outcomes. Understanding and addressing the climate crisis also as a crisis of mental health requires transdisciplinary thinking and collaboration at all levels. Examples of good/best practice exist both nationally and internationally and can guide the implementation of actions. While our recommendations (raising public awareness; strengthening individual and community resilience; strengthening transdisciplinary research; and embedding mental health in climate protection and adaptation plans) are addressed to the Federal Government, the core concept of resilience requires a societal approach with actors ranging from private individuals to representatives from countries, municipalities, civil society, the private sector, science, and the media.

The members of the Hub Community on Global Mental Health are keen to continue the dialogue on the challenges and opportunities in the context of the impact of climate change on mental health. Together with the other Hub Communities of the Global Health Hub Germany, our goal is to contribute to an inclusive, sustainable and fair healthcare system that, in line with the SDGs, "leaves no-one-behind" [36].

This statement reflects the results of discussions in the Hub Community on Global Mental Health of the Global Health Hub Germany. The community is made up of different groups of professionals from various academic disciplines, organizations and people from civil society.

About the Global Health Hub Germany
The Global Health Hub Germany offers all individuals and institutions active in the field of global health the opportunity to connect in an independent network across eight different stakeholder groups: International organisations, youth, politics, foundations, think tanks, business, science, and civil society. The members of the Hub work together on current issues of global health. The interdisciplinary exchange generates themes, issues and solutions that the Hub brings to policymakers to support informed policy-making and advance in global health. Founded in 2019, the Hub now has around 2,000 members. For more information: www.globalhealthhub.de

About the Hub Communities
The Hub Communities are working groups led by the members of the Global Health Hub Germany themselves. They meet regularly to exchange ideas, share expertise and work together on global health issues. If you would like to join a Hub Community or learn more about their work, contact Katrin Lea Würfel, Head of Community Management: katrin.wuerfel@globalhealthhub.de

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