

Advocacy Brief

Climate change and mental health



Global Mental Health
Action Network

gmhan.org

ADVOCACY BRIEF: CLIMATE CHANGE AND MENTAL HEALTH

Global temperatures are rising and extreme weather events are leading to more frequent and intense heat waves, floods, landslides, storms, wildfires and droughts. This is having a negative effect on people's mental health across the world, from exacerbating the symptoms of mental health conditions to increasing mortality rates among those living with mental ill-health. These impacts are most acutely felt in low- and middle-income countries. Children and adolescents are especially vulnerable to the mental health impacts of climate change, due to their unique developmental needs and sensitivities.

This briefing is the product of discussions among the Global Mental Health Action Network (a network of over 3,000 individuals from more than 130 countries) and is based on recommendations from internationally recognised organisations, such as the UN Framework Convention on Climate Change (UNFCCC) and the World Health Organisation (WHO). It provides a summary of the current and projected impacts of climate change on mental health. It then sets out the practical ways in which governments should ensure mental health is addressed now and in the future.



Climate change is affecting us all

- **Over the last 50 years**, climate- and weather-related disasters have surged five-fold, with over 91% of related deaths occurring in low- and middle-income countries (LMICs).¹
- **In the last decade**, climate change has been identified as a key driver of rapidly growing humanitarian needs.²
- **Unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions**, limiting warming to close to 1.5°C or even 2°C will be beyond reach.³
- **Almost every child (>99%) is now exposed to at least one climate or environmental hazard and approximately 1 billion children** – nearly half the world’s children – live in countries considered at ‘extremely high-risk’ to the impacts of climate change.⁴
- **Climate change is driving up the impact and costs of disasters:** The estimated annual cost of adapting to climate is projected to be \$160-340 billion by 2030 and \$315-565 billion by 2050 due to intensified climate impacts.⁵ And international adaptation finance flows to developing countries are 5-10 times below what they are estimated to need, and the gap is widening.
- **We cannot lose hope.** Emissions growth has slowed in the past decades, renewable energy has never been so cheap and more than 800 cities have set zero emissions targets. Political will is essential to halting climate change in its tracks and preventing its worst impacts.⁶

1 <https://news.un.org/en/story/2021/09/1098662>

2 <https://www.unocha.org/2023gho>

3 <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>

4 <https://www.unicef.org/press-releases/one-billion-children-extremely-high-risk-impacts-climate-crisis-unicef>

5 <https://www.unep.org/news-and-stories/press-release/impacts-accelerate-adapting-climate-change-must-become-global>

6 <https://unfccc.int/blog/everything-you-need-to-know-about-the-ipcc-report>

Mental health is threatened by climate change

- **Exposure to climate disasters e.g. floods, wildfires, droughts**, can lead to psychological distress, trigger mental health problems and worsen pre-existing mental health conditions. Mental health conditions can persist months or even years after the event.⁷
- **Climate disasters can disproportionately impact the mental health of children** and adolescents, especially girls, by disrupting their education, social support systems, and overall emotional wellbeing, for example.^{8,9}
- An individual’s **pre-existing mental health condition** raises the risk of mortality during extreme heat events.¹⁰
- Recent research shows that **temperature rises** can be associated with increases in suicides and suicidal behaviour; rises in hospital admission for mental health conditions; and poor overall community health and wellbeing.¹¹
- **Cost estimates for climate change** often fail to capture the impacts on mental health, which have knock-on societal and individual costs. 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 2030.¹²

Current health and community-based service delivery models are already unable to fully meet mental health needs, leaving vast numbers of people across the world without appropriate care. This **treatment gap is projected to worsen with climate change and continued environmental destruction**.¹³

7 https://istss.org/ISTSS_Main/media/Documents/ISTSS-Briefing-Paper_Climate-Change-Final.pdf

8 <https://link.springer.com/article/10.1007/s11920-018-0896-9>

9 <https://www.who.int/publications/m/item/review-of-ipcc-evidence-2022--climate-change--health--and-well-being>

10 <https://pubmed.ncbi.nlm.nih.gov/37107845/>

11 <https://pubmed.ncbi.nlm.nih.gov/37437999/>

12 <https://annalsofglobalhealth.org/articles/10.5334/aogh.4079>

13 <https://www.who.int/news/item/03-06-2022-why-mental-health-is-a-priority-for-action-on-climate-change>

Cost estimates for climate change often fail to capture the **impacts on mental health**, which have knock-on societal and individual costs.

Climate change is driving up the impact and costs of disasters

... The estimated annual cost of adapting to climate is projected to be **\$160-340 billion by 2030**



KEY CONSIDERATIONS FOR GOVERNMENTS

Climate change is the single biggest threat to global health, according to the WHO.¹⁴ It is projected to lead to around 250,000 additional deaths per year between 2030–2050 due to malnutrition, malaria, diarrhoea and heat stress alone. The majority of these deaths will occur in LMICs.¹⁵

As well as its direct impacts on health, such as heat stress, climate change is also a ‘threat multiplier’: it exacerbates a range of risks, which in turn can have serious negative health consequences. Physical and mental health are intertwined, with climate-sensitive physical conditions likely leading to worsened mental health. Climate change can, for example:

- reduce agricultural productivity, leading to undernutrition and poverty, with damaging consequences for physical and mental health¹⁶
- provide new habitats for disease vectors like mosquitoes, leading to an increase in climate-sensitive infectious diseases, which can also have a detrimental impact on mental health¹⁷
- contribute to climate-related mass migration and violent conflict, with devastating impacts on public health and health systems,¹⁸ as well as mental health.¹⁹

The impacts of climate change on mental health

In recent years there has been a growing understanding of the mental health and psychosocial needs of people affected by disasters. But the mental health and psychosocial risks and impacts of a changing climate have been relatively understudied. That is starting to change. More attention is now being paid to the relationship between climate change and mental health, and to the importance of managing climate change’s mental health consequences.²⁰

The most extreme climate-related hazards, such as heatwaves, floods, landslides, tropical storms and wildfires, have been associated with increased rates of suicide and mental health conditions, such as depression, post-traumatic stress disorder, substance misuse and anxiety, and their symptoms.^{21 22 23} Disasters and severe weather events are also often followed by ‘secondary stressors’, such as financial strain, displacement and disruptions to social support networks.

14 <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

15 <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

16 <https://www.nature.com/articles/s41467-022-32116-3>

17 <https://e360.yale.edu/digest/climate-change-will-expose-half-of-worlds-population-to-disease-spreading-mosquitoes-by-2050>

18 <https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2818%2932594-7/fulltext>

19 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)30934-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30934-1/fulltext)

20 <https://www.who.int/publications/m/item/review-of-ipcc-evidence-2022--climate-change--health--and-well-being>

21 <https://www.mdpi.com/1660-4601/18/9/4486>

22 [https://doi.org/10.1016/S2542-5196\(23\)00104-3](https://doi.org/10.1016/S2542-5196(23)00104-3)

23 <https://doi.org/10.1007/s40572-019-00245-5>

These stressors can exacerbate mental health problems, especially for those with pre-existing vulnerabilities or who are highly exposed.^{24 25}

Evidence is beginning to show chronic or slow-creeping climate change impacts, such as sea-level rise and gradually increasing temperatures, are associated with a range of adverse mental health outcomes. So are the losses of culture, places, landscapes and social ties caused by climate change.^{26 27 28} For example, in Ethiopia,²⁹ the Solomon Islands,³⁰ Tuvalu³¹ and Bangladesh,^{32 33 34} people are experiencing emotional distress as a result of:

- seasonal environmental changes and their impact on water security
- sea-level rise
- the difficulties of relocating to avoid the impact of climate change.

Experiencing, knowing about, and anticipating the impacts of climate change are associated with adverse psychological outcomes, including worry and anxiety.^{35 36 37}

24 https://istss.org/ISTSS_Main/media/Documents/ISTSS-Briefing-Paper_Climate-Change-Final.pdf

25 <https://doi.org/10.1146/annurev-publhealth-032013-182435>

26 <https://www.nature.com/articles/nclimate3140>

27 <https://www.mdpi.com/1660-4601/18/9/4486>

28 <https://www.nature.com/articles/s41558-018-0092-2>

29 <https://doi.org/10.1016/j.gloenvcha.2019.101994>

30 <https://doi.org/10.1177/1039856215609767>

31 <https://doi.org/10.1016/j.janxdis.2020.102237>

32 <https://doi.org/10.1016/j.ijdrr.2020.101904>

33 <https://doi.org/10.1080/17565529.2020.1777078>

34 <https://doi.org/10.1057/s41599-020-0443-2>

35 <https://www.sciencedirect.com/science/article/abs/pii/S0887618520300773?via%3Dihub>

36 <https://doi.org/10.59249/earx2427>

37 [https://doi.org/https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/https://doi.org/10.1016/S2542-5196(21)00278-3)

**Physical and mental health
are intertwined, with
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Vulnerable groups

Small island developing states (SIDS), in particular, are on the frontline of climate change. Their geography and economic reliance on local ecosystems, such as marine life, make them particularly vulnerable. SIDS are more exposed to extreme weather events, ocean acidification and sea-level rise, for example, which can cause devastating loss and damage to critical infrastructure, water supplies, food security, housing, education and health systems.³⁸

Marginalised groups – such as Indigenous Peoples, older people, children, young people, women and religious or ethnic minorities – are also disproportionately vulnerable to the effects of climate change, including the mental health impacts.³⁹

The existential threat of climate change is a significant driver of psychological distress and anxiety, especially among young people.^{40 41} However, anxiety, stress and worry are very normal reactions to something as uncertain and potentially devastating as climate change, and so should not be pathologised. And much more research is still needed on how climate change uniquely effects children's and young people's mental health.

Solutions

The Intergovernmental Panel on Climate Change (IPCC) recently called for integrated mitigation and adaptation strategies to support human health and wellbeing, including improving access to mental health care.⁴² The longer we wait to take decisive action to mitigate climate change, the greater the impacts will be on physical and mental health, and the less able our health and social systems will be to adapt and cope.⁴³ Evidence-based climate change solutions that support just transitions away from fossil fuels already exist (e.g., use of low-carbon or carbon-neutral energy sources).⁴⁴ As well as the urgent need to mitigate climate change, there is a vital necessity to support mental health-inclusive climate change adaptation.

Whilst the response and recovery phases of disaster have tended to include mental health and psychosocial support, relevant government ministries need to consider integrating mental health and psychosocial support into work to prevent and prepare for disaster as well.

38 <https://www.who.int/publications/i/item/9789290618669>

39 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01540-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01540-9/fulltext)

40 <https://doi.org/10.1016/j.copsyc.2019.06.023>

41 <https://www.pnas.org/doi/abs/10.1073/pnas.1701354114>

42 https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_SPM.pdf

43 <https://www.ipcc.ch/assessment-report/ar6/>

44 <https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>

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RECOMMENDATIONS

There are some crucially important steps governments, funders and wider society need to take now, based on the advice of international organisations including the UNFCCC, the IPCC and the WHO.

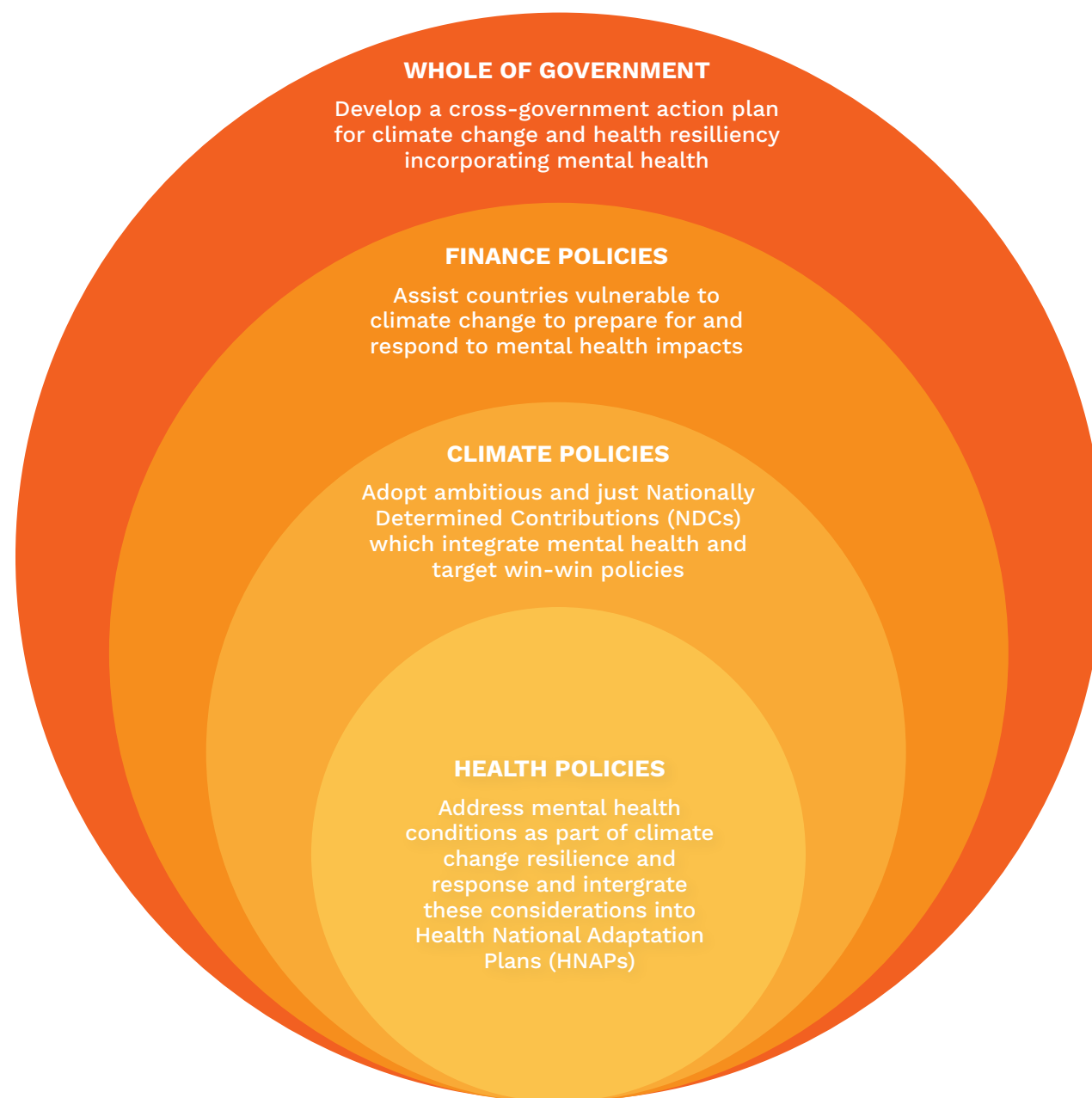


Figure 1: A basic framework for a holistic, cross-government response to the mental health impacts of climate change:

1. HEALTH POLICIES:

Prioritise mental health and psychosocial wellbeing as an integral part of enhancing climate change resilience and responding to climate change impacts to protect people, communities and economies.

This includes:

- advocating for the development and expansion of mental health services as a form of climate change adaptation to address the rising levels of mental health problems caused by climate change
- analysing how climate change might affect current mental health interventions – including those designed to treat and prevent mental health conditions and promote wellbeing. For example, antipsychotic medications can impact temperature regulation, increasing the risk of physical health problems during extreme heat events⁴⁵
- identifying the populations most vulnerable to the adverse mental health impacts of climate change and ensuring climate-resilient support pathways are in place
- helping general health workers to understand the mental health impacts of climate change
- assessing the physical vulnerabilities of mental health care facilities e.g. emergency water and power supplies, cooling systems
- projecting the size and skillset of the workforce needed to prevent and respond to the impact of climate change on mental health
- putting in place climate-resilient mental health service delivery systems that allow for the expansion of the current mental health workforce to meet projected needs.

These steps should be integrated into and delivered as part of vulnerability and adaptation assessments (V&As) and health national adaptation plans (HNAPs).^{46,47,48}

45 <https://www.sciencedirect.com/science/article/abs/pii/S0924933807013089?via%3Dihub>

46 National adaptation plans (NAPs) are the medium- and long-term adaptation plans each country develops to build resilience to climate change across all relevant sectors. The WHO defines a HNAP as a plan developed by a country's Ministry of Health as part of the NAP process. WHO provides guidance on these plans and what they should include.

47 <https://www.who.int/publications/i/item/who-guidance-to-protect-health-from-climate-change-through-health-adaptation-planning>

48 <https://www.who.int/publications/i/item/9789240018983>

2. CLIMATE POLICIES:

Develop and implement bold and robust climate change adaptation and mitigation policies across sectors. This involves estimating the benefits to mental health of climate change mitigation and adaptation, and the mental health costs of inaction. It also entails advocating to climate and other relevant policymakers for rapid and large-scale action.

Strengthen efforts to integrate mental health and psychosocial wellbeing considerations into nationally determined contributions (NDCs),⁴⁹ including considerations related to climate-resilient health systems; the prevention and management of mental health conditions; a reduction in emissions by the health sector; and the promotion of wellbeing amid growing climate change stressors.

Adopt just transition policies which aim to leave no one behind in the transition to a cleaner, greener world, and protect mental health and wellbeing, including in communities who rely on carbon-intensive industries for their livelihoods.

3. FINANCE POLICIES:

Provide financial and capacity-building assistance to countries that are particularly vulnerable, e.g. nations in sub-Saharan Africa and the Small Island Developing States (SIDS), to address the impact of climate change on mental health and build resilience in the mental health care system in preparation for increasingly intense and frequent extreme weather events.

Allocate increased finance to domestic health and climate policies to prevent and respond to the mental health impacts of environmental degradation and climate change.

49 <https://www.who.int/publications/m/item/review-of-ipcc-evidence-2022--climate-change--health--and--well-being>

4. WHOLE OF GOVERNMENT:

Develop a whole-of-government and whole-of-society government action plan for climate change and health resiliency that fully incorporates mental health prevention, promotion and care across the life course, in line with the UNFCCC, the Paris Agreement, the Alliance of Small Island States (AOSIS) 'Declaration on the Placencia Ambition Forum' and the Bridgetown Initiative.

- **Adopt win-win policies** that maximise the mental health co-benefits of climate mitigation and adaptation, including:
- **nature-based interventions,** which improve access to green and blue spaces
- **clean-energy initiatives,** which improve air quality by supporting the shift away from fossil-fuel-based and pollution-generating energy sources
- **transport policies,** which encourage active modes of transport where possible
- **sustainable agriculture policies,** which also increase access to nutritious food
- **education policies** which integrating climate change and mental health into school curricula, scale up mental health support services in schools, and support parents and caregivers.
- further **interdisciplinary research⁵⁰** on the impact of climate change on mental health to develop evidence-based solutions.

Fully integrate mental health into the design and delivery of disaster preparedness and response work,⁵¹ including national early-warning and response systems, heat action plans, national health-related adaptation actions identified through Climate Change and Health Vulnerability and Adaptation Assessments, and mental health and psychosocial support programmes.

50 <https://doi.org/https://doi.org/10.1016/j.envint.2021.106984>

51 <https://www.who.int/publications/m/item/who-policy-brief--loss-and-damage>

UPCOMING POLITICAL MOMENTS AND PROCESSES RELATED TO MENTAL HEALTH AND CLIMATE CHANGE

There are five key processes and political moments that offer an opportunity to better integrate mental health into discussions and decision-making on climate change and the environment.

1. COP28, 2023

There will be an inaugural COP Health Day, organised by the United Arab Emirates (UAE) as the host government, the WHO and a range of other stakeholders. It is essential mental health is integrated throughout the day and that governments and key international stakeholders use the occasion to pledge to take further action on mental health.

During the COP, governments should work towards fully integrating mental health into the Global Stocktake and the Global Goal for Adaptation. They should also ensure mental health costs are factored into discussions on the Loss and Damage Fund.

- **Global Stocktake (GST):** COP28 will see the conclusion of the inaugural Global Stocktake, a five-yearly process to evaluate progress against the goals of the Paris Agreement and accelerate efforts to avoid the worst consequences of climate change. This is an opportunity to shine a light on the negative impacts of climate change on mental health and commit to integrating mental health into climate change adaptation and mitigation plans.
- **Global Goal on Adaptation (GGA):** The Paris Agreement established a Global Goal on Adaptation to strengthen resilience and reduce vulnerability to climate change. It includes a commitment to develop or enhance national adaptation plans and for richer countries to provide adaptation finance to their LMIC peers more vulnerable to the impacts of climate change. Later, at COP26 in Glasgow, a commitment was made to double adaptation finance between 2019 and 2025. Historically, the majority of climate finance has gone to mitigation instead of adaptation-focused programmes, and less than 1% of adaptation finance (from multilateral sources) has been health-focused.⁵² It is important that countries develop and implement national adaptation plans that meaningfully incorporate mental health considerations. Furthermore, talk needs to turn into action when it comes to adaptation finance commitments, including dedicated finance to address the mental health impacts of climate change.

⁵² <https://www.who.int/news/item/05-12-2018-health-benefits-far-outweigh-the-costs-of-meeting-climate-change-goals>

- **Loss and Damage Fund (LDF):** At COP27 in Sharm El-Sheikh, a landmark decision was made to establish a Loss and Damage Fund. It would provide developing countries more vulnerable to the negative impacts of climate change with vital funds to combat the loss and damage associated with, for example, extreme weather events and sea-level rise. The Loss and Damage Fund is part of a climate justice movement which recognises that often the countries most vulnerable to the impacts of climate change are also those that historically contributed the least to the problem. As negotiations continue to decide what the Loss and Damage Fund should look like, countries should commit to incorporating mental health within its scope. Not all loss and damage is visible. Finance is desperately needed to ensure that mental health systems and processes are in place and able to respond to the growing mental health burden associated with climate change.

2. 77th World Health Assembly, 2024

A number of countries, supported by civil society organisations around the world, are calling for the agreement of a World Health Assembly (WHA) resolution on climate change and health. Starting with the WHO regional committee meetings from July to October, it is essential ministers support the proposal for a resolution and ensure mental health is integrated throughout the document. At the WHA in 2024, during the debate on the resolution, ministers should pledge to take further action of their own to address mental health.

During the COP, governments should work towards fully integrating mental health into the Global Stocktake and the Global Goal for Adaptation.

An aerial photograph showing a flooded area with several houses and trees. The water is murky brown, and the houses have tiled roofs. The trees are green and yellow. The image is partially covered by a large orange semi-circle on the right side.

Suggested negotiating text for key processes

- We commit to actions that can address mental health as an integral part of climate change resiliency and pandemic prevention, preparedness and response. We pledge our actions will protect people, communities and economies in the face of future emergencies by ensuring uninterrupted access to high-quality, age-appropriate essential services, support and medicines throughout the life course. Our actions will promote mental health and psychosocial wellbeing and reduce exposure to the social, environmental and economic factors that contribute to poor mental health.
- We call on all high-income countries, donors and philanthropy to provide financial and capacity-building assistance to countries that are particularly vulnerable, e.g. the SIDS, to address the impact of climate change on mental health.
- We will fully integrate mental health in the design and delivery of national early-warning and response systems, and heat action plans, as well as national health-related adaptation actions identified through Climate Change and Health Vulnerability and Adaptation Assessments. We will ensure the meaningful participation of children, young people and other people with lived experience in this process.
- We will develop a whole-of-government and whole-of-society action plan for climate change and health resiliency that fully addresses the consequences of inaction for mental health, in line with the UNFCCC, the Paris Agreement, the Alliance of Small Island States (AOSIS) 'Declaration on the Placencia Ambition Forum' and the Bridgetown Initiative.
- We will support efforts to integrate mental health considerations in nationally determined contributions (NDCs), including those considerations related to climate-resilient health systems; the prevention and management of mental health conditions; and the estimated mental health benefits of climate change mitigation and adaptation action. We will also develop, implement and evaluate health national adaptation plans (HNAPS) that include mental health considerations.
- We will involve children and adolescents, especially those with lived experience of mental health and the impacts of climate change, in the design and delivery of national early-warning and response systems and adaptation.

CONCLUSION

Global discussions and decisions determining the future of our environment are happening now. To date, mental health, psychosocial support and wellbeing have been largely absent from these discussions. We need to change that. There are actions we can each take now that will have long-term positive consequences, helping improve the lives of millions of people now and in the future.

KEY READING:

WHO climate change and mental health policy brief

<https://www.who.int/publications/i/item/9789240045125>

The Lancet Countdown on health and climate change

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01540-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01540-9/fulltext)

Intergovernmental Panel on Climate Change 6th Assessment Report on Impacts, Adaptation and Vulnerability: summary for policymakers

<https://www.ipcc.ch/report/ar6/wg2/chapter/summary-for-policymakers/>

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