Advocacy Brief

The environment, mental health and psychosocial wellbeing

Global Mental Health Action Network

gmhan.org

ADVOCACY BRIEF: THE ENVIRONMENT, MENTAL HEALTH AND PSYCHOSOCIAL WELLBEING

From air, soil and water pollution to unprecedented rates of extinction, the natural environment is coming under a growing existential threat. According to the UN Environment Programme, if we continue along our current path, none of the environmental UN Sustainable Development Goals (SDGs) will be achieved and we will witness further destruction to our environment.1 We rely on ecosystem services for our health, wellbeing and livelihoods, and there is emerging evidence that the environmental crisis is negatively impacting global mental health. These impacts are most acutely felt in low- and middle-income countries (LMICs), and by communities who are particularly reliant on the natural environment.

This briefing is the product of discussions among the Global Mental Health Action Network (a network of more than 3,000 individuals from over 130 countries) and is based on recommendations from internationally recognised organisations, such as the UN Environment Programme and the World Health Organisation. It provides a summary of the impacts now and in the future on mental health and psychosocial wellbeing as a result of changes to the environment. It then sets out the practical ways in which governments, particularly ministries of health, can help to improve mental health and psychosocial wellbeing and reduce the burden of mental ill health.

The quality of our environment is declining

- **Today**, 99% of the world's population live in areas that breach World Health Organisation (WHO) air-quality guidelines. Outdoor air pollution causes 4.2 million premature deaths a year, the majority in low- and middle-income countries (LMICs).[2]
- **Every year**, 10 million hectares of forests are lost globally due to deforestation.[3]
- **Within decades**, around 1 million plant and animal species could face extinction unless stronger action is taken to curb biodiversity loss.[4]
- **Children are more physiologically vulnerable to environmental shocks** than adults. For example, toxic substances, such as lead, highly hazardous pesticides, and other forms of pollution, affect children more than adults, even at lower doses of exposure.[5]

1 https://www.unep.org/geo/global-environment-outlook-7
2 https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health
3 https://www.unep.org/resources/factsheet/deforestation
4 https://zenodo.org/record/3553579
5 https://apps.who.int/iris/bitstream/handle/10665/372293/9789240078130-eng.pdf?sequence=1

Mental health and psychosocial wellbeing is threatened by these changes

- **Air pollution** has been linked to an increased risk of mood disorders, including depression and anxiety. One UK study found that people who live in areas with high levels of air pollution are 40% more likely to experience depression than those who live in areas with cleaner air.[6]
- **The destruction of nature** threatens mental health and wellbeing because exposure to natural environments has been found to decrease the risk of mental illness and promote psychological wellbeing, including through reduced stress and improved sleep.[7] Globally, protected areas provide mental health benefits worth US$6 trillion per year.[8]
- **The widespread and ongoing use of highly hazardous pesticides** (a small minority of all pesticides) presents major threats to human health, the environment, and the sustainability of agricultural production.[9] It is estimated 1 in 5 suicides globally are due to pesticide self-poisoning.[10] Phasing out the use of highly hazardous pesticides has been shown to save tens of thousands of lives,[11] and is cost-effective without adversely impacting agricultural production.[12]
- **The cost of mental disorders** 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 in 2030.[13]

Current health and community-based service delivery models are 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 environmental destruction.**[14]

6 https://pubmed.ncbi.nlm.nih.gov/30576995/
7 https://www.science.org/doi/full/10.1126/sciadv.aax0903
8 https://www.nature.com/articles/s41467-019-12631-6
9 https://www.who.int/publications/i/item/9789240066700
10 https://www.sciencedirect.com/science/article/pii/S016503271730280X
11 https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(17)30299-1/fulltext
12 https://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(20)30493-9.pdf
13 https://annalsofglobalhealth.org/articles/10.5334/aogh.4079
14 https://www.who.int/news/item/03-06-2022-why-mental-health-is-a-priority-for-action-on-climate-change

KEY CONSIDERATIONS FOR MINISTRIES OF HEALTH

Pollution refers to the introduction of harmful materials, 'pollutants', into the environment. While typically denoting air pollution, it can take many forms, including water, soil and noise pollution.[15] People in LMICs are most affected, mainly due to their reliance on wood stoves for cooking, which contributes to household air pollution.[16] The WHO estimates 7 million people die prematurely every year from outdoor and indoor air pollution.[17]

Air pollution has been linked to an increased risk of mood disorders, including depression and anxiety, as well as impaired cognitive development in children and infants, and accelerated cognitive decline in older adults.[18][19][20][21] Exposure to air pollution can also lead to increased stress and sleep disturbances, which can have negative impacts on mental health.[22] While research in this area is still in its infancy, it has been suggested that air pollutants like particulate matter can activate the release of stress hormones (cortisol) in the brain. This has a detrimental impact on mental health and cognition, particularly if the stress activation is chronic, i.e. continues for a long time.[23]

Water pollution is a significant problem in many LMICs, where access to **safe drinking water is often limited.**[24]

Exposure to toxins in polluted water is associated with elevated symptoms of mental health conditions and neurodevelopmental disorders in young people.[25] Furthermore, stress and anxiety associated with the fear of exposure to polluted water, as well as the frustration and anger that can come from feeling helpless to address the problem, can all contribute to mental health issues.[26]

Studies indicate there may also be a link between exposure to chemical substances in the air, food, water and soil and negative mental health outcomes, such as depression.[27]

15 https://education.nationalgeographic.org/resource/pollution/
16 https://www.who.int/health-topics/air-pollution#tab=tab_1
17 https://www.who.int/health-topics/air-pollution#tab=tab_2
18 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8835599
19 https://pubmed.ncbi.nlm.nih.gov/30576995/
20 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7274848/
21 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31363-6/fulltext
22 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7877449/
23 https://pubmed.ncbi.nlm.nih.gov/31127781/
24 https://www.who.int/news/item/18-06-2019-1-in-3-people-globally-do-not-have-access-to-safe-drinking-water-unicef-who
25 https://www.sciencedirect.com/science/article/abs/pii/S0022395621007147
26 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5126025/
27 https://pubmed.ncbi.nlm.nih.gov/28720389/

Highly hazardous pesticides, known to cause disproportionate harm to human health and the environment, continue to be produced in and exported to low- and middle-income countries where regulatory systems for safe pesticide use and control are weaker.[28] Given pesticide self-poisoning accounts for 20% of all suicides globally, equivalent to 168,000 deaths each year,[29] phasing out the use of highly hazardous pesticides will result in substantial reductions in suicide rates and is recommended by the WHO as a cost-effective intervention for mental health.[30] Studies across with world have consistently demonstrated that national bans on highly hazardous pesticides are associated with a reduction in pesticide-related suicides and overall suicide rate,[31] without a loss of agricultural productivity.

28 https://www.who.int/publications/i/item/9789240066700
29 https://www.sciencedirect.com/science/article/pii/S016503271730280X
30 https://www.who.int/publications/i/item/9789240031081
31 https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(17)30299-1/fulltext

In 2023, a global resolution[32] to scale up efforts to curb the impact of chemicals, waste, and pollution on human health, including highly hazardous pesticides and their impact on suicides, was adopted by the World Health Assembly.

It calls upon countries to strengthen awareness and regulation of highly hazardous pesticides. If lethal means of self-harm such as highly hazardous pesticides, were not readily available in households and communities at moments of crisis, many lives would be saved.

Biodiversity loss refers to the decline in the diversity of animals, plants and ecosystems. Biodiversity loss is mainly driven by human activities like deforestation, pollution and greenhouse gas emissions.[33] It is already having a significant impact on the benefits we derive from healthy ecosystems, such as fresh water, a sustainable supply of nutritious food and the availability of essential medicines.[34] Biodiversity loss is being acutely felt by communities in LMICs and where people are more socially and economically marginalised, or lack access to resources and opportunities. Indigenous communities, children, women, coastal communities and marginalised urban populations can be particularly exposed. Indigenous Peoples, in particular, rely more directly on harvesting from nature as part of their way of life. Biodiversity loss threatens their food security, access to medicinal plants, and cultural and spiritual connections to the land.[35][36]

There is a strong evidence base to support the positive relationship between access to green space and mental health, and an emerging literature on the positive influence of biodiversity and blue space – i.e. water environments – too.[37][38] We are also seeing new psychological terms entering public discourse to describe the negative mental health impacts associated with environmental destruction. These include 'eco-anxiety',[39] 'ecological grief'[40] and 'solastalgia' (nostalgia for an environment that has been altered or destroyed).[41]

Finally, it is important to note that the environmental crisis is not happening in parallel with the climate crisis but is deeply interconnected, and in fact inseparable. The climate is influenced by the natural environment and its ability to act as a carbon sink, and in turn the climate influences the health of ecosystems.

32 https://apps.who.int/gb/ebwha/pdf_files/WHA76/A76_ACONF2-en.pdf
33 https://unfccc.int/blog/what-is-the-triple-planetary-crisis
34 https://www.who.int/publications/i/item/connecting-global-priorities-biodiversity-and-human-health
35 https://iopscience.iop.org/article/10.1088/1748-9326/ab68a9
36 https://www.nhm.ac.uk/discover/indigenous-peoples-call-for-co-operation-conserve-worlds-biodiversity.html
37 https://www.sciencedirect.com/science/article/abs/pii/S0306987711000910
38 https://academic.oup.com/heapro/article/35/1/50/5252008
39 https://www.sciencedirect.com/science/article/pii/S2667278221000444
40 https://www.annualreviews.org/doi/10.1146/annurev-environ-012220-022716
41 https://search.informit.org/doi/abs/10.3316/informit.897723015186456

RECOMMENDATIONS

There are some crucially important steps governments, funders and wider society urgently need to take, based on the advice of international organisations, including the World Health Organisation.

1. HEALTH POLICIES:

Recognise and leverage mental health arguments for environmentally sustainable policies.

Incorporate biodiversity and ecosystem awareness and conservation into mental health strategies.[42]

Acknowledge environmental determinants of health within public health policy.[43,44] For example, create and support equal access to safe and inclusive green spaces.

Implement and evaluate health national adaptation plans (H-NAPS) that include mental health considerations.

Train and educate health workers on the environmental determinants of health, including mental health.

2. ENVIRONMENTAL POLICIES:

Integrate mental health considerations into national biodiversity strategies and actions plans (NBSAPs).

Adopt bold policies to improve air quality, prevent deforestation and conserve, protect and enhance the national environment, including adopting regulatory frameworks, planning and implementing interventions, establishing baselines and measuring progress in an open and transparent manner.

Limit air pollution by:[45]

- replacing coal with renewable sources of energy for total power production
- replacing biomass burning stoves with cleaner fuels, preferably renewable sources of electricity
- replacing diesel and gasoline-powered vehicles with electric vehicles
- eliminating uncontrolled diesel emissions
- preventing crop and waste burning
- preventing forest fires.

Implement soil-pollution management: including using barriers and plants to reduce and control risks of soil pollution, using natural processes to attenuate pollution and adopting more sustainable land use practices in contaminated areas.

Implement water-pollution management: including investing in adequate sewage piping and water-treatment systems, and household and industrial waste disposal, and building and maintaining flood and storm-water drains.

Support community education on safe water- and waste-management practices to reduce contamination.

Take decisive action to mitigate climate change: including through ambitious 'nationally determined contributions' (NDCs), which set out pathways to net zero greenhouse gas emissions by 2050.

42 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)01431-9/fulltext
43 https://doi.org/10.1016/S0140-6736(23)00130-7
44 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)01431-9/fulltext
45 https://www.cleanairfund.org/news-item/open-letter/?mc_cid=1e636b9fae&mc_eid=fd5f5a683f

RECOMMENDATIONS CONTINUED

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 environmental degradation on mental health.

Should assess the health costs of pollution and factor economic value of health improvement into cost-benefit assessments of environmental policies.

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

4. WHOLE OF GOVERNMENT:

Adopt a 'mental health in all policies' (MHiAP) approach, which recognises the impacts of non-health policies on the determinants of mental health.

Promote interdisciplinary research[46] that will build evidence to support policy design and implementation on the environment and mental health**.**

Adopt win-win policies that maximise the mental health co-benefits of climate mitigation and adaptation, including nature-based interventions that improve access to green and blue spaces, and sustainable agriculture policies, which also increase access to nutritious food.

46 https://doi.org/https://doi.org/10.1016/j.envint.2021.106984

UPCOMING POLITICAL MOMENTS AND PROCESSES RELATED TO MENTAL HEALTH AND THE ENVIRONMENT

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. 2024 UNITED NATIONS BIODIVERSITY CONFERENCE (COP16)

At COP15, 188 governments agreed to the Kunming-Montreal Global Biodiversity Framework which set major biodiversity goals for 2030. Of particularly relevance to mental health include the targets to:

- conserve and manage at least 30% of the world's lands and oceans by 2030
- reduce by half excess nutrients and the overall risk posed by pesticides and highly hazardous chemicals
- encourage at least $200bn per year in domestic and international biodiversity-related funding from public and private sources.

As future COPs evaluate progress against this framework, it is important that countries meaningfully incorporate mental health into their national strategies to implement the Global Biodiversity Framework and that biodiversity finance supports nature for mental health.

2. 2024 WHO AIR POLLUTION AND HEALTH CONFERENCE

The WHO Air Pollution and Health Conference is an opportunity to spread awareness about the links between air pollution and mental health, call for tighter restrictions on air quality to protect mental health, and increase support for LMICs to transition away from traditional cooking methods, such as biomass stoves, which contribute to indoor pollution and health inequalities.

3. 2024 UN FORUM ON FORESTS

The May 2024 UN Forum on Forests is expected to focus on:

- enhancing forest-based economic, social and environmental benefits
- increasing the area of protected forests worldwide
- mobilising finance for sustainable forest magement.

This is an opportunity for the mental health community to raise awareness of mental health as a key social and economic benefit of forests, leverage mental health arguments for sustainable forest policies, and mobilise finance and other support for communities who rely on forest ecosystems, such as Indigenous Peoples.

Suggested negotiating text for key processes

- **We commit to actions that can address mental health as an integral part of environmental protection, conservation and enhancement initiatives. We pledge our actions will protect people, communities and economies in the face of future environmental emergencies by ensuring uninterrupted access to high-quality essential services and medicines throughout the life course. Our actions will promote mental wellbeing and reduce exposure to the social, environmental and economic factors that contribute to poor mental health.**

- **We call on 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 environmental degradation and climate change on mental health.**

- **We will develop a whole-of-government and whole-of-society action plan for environmental change and health resiliency that fully addresses the consequences of inaction for mental health and maximises mental health co-benefits, in line with the United Nations Framework Convention on Climate Change (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 health considerations in National Biodiversity Strategies and Action Plans (NBSAPs), National Clean Air Strategies and programmes and NDCs into UNFCCC, including those considerations related to the prevention and management of mental health conditions and the estimated mental health benefits of environmental protection, conservation and enhancement.**

CONCLUSION

Global discussions and decisions on environmental issues are happening now. 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 consequences, helping to improve the lives of millions of people now and in the future.

KEY READING:

UN Global Environment Outlook
https://www.unep.org/geo/global-environment-outlook-7

Planetary Health and Mental Health Nexus: Benefit of Environmental Management

https://annalsofglobalhealth.org/articles/10.5334/aogh.4079

Clean Air Fund open letter on air pollution and public health
https://www.cleanairfund.org/news-item/open-letter/?mc_cid=1e636b9fae&mc_eid=fd5f5a683f

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