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# WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health & Mass Media
231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: http://www.epid.gov.lk

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# Climate Change and Mental Health: An Emerging Public Health Challenge

#### Introduction

Climate change has been identified as one of the greatest global health threats of the 21st century. While its impacts on physical health, such as heat-related illnesses, malnutrition, and the spread of vector-borne diseases, are widely documented, the implications for mental health are less visible but equally significant. The World Health Organisation defines mental health as a state of well-being in which individuals realise their potential, cope with life's stresses, work productively, and contribute to their community. Climate change threatens this definition by causing psychological stress, trauma, and longterm emotional distress.

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as longterm shifts in temperature and weather patterns. largely caused by unsustainable human activities such as fossil fuel use and ecosystem degradation. These changes appear both as acute hazards such as floods, cyclones, and wildfires, and as slower-onset threats such as prolonged droughts, heat waves, and rising sea levels. Both forms carry profound consequences for mental health, making climate change not only an environmental and economic concern but also a critical public health and psychosocial issue.

## **Epidemiological Evidence Linking Climate Change and Mental Health**

Evidence increasingly shows that climate change has both direct and indirect pathways of impact on mental well-being. Direct impacts arise from acute climate-related disasters, where survivors of hurricanes, floods, droughts, and wildfires often experience post-traumatic stress disorder, anxiety, depression, and sometimes suicidal ideation. These psychological effects can persist long after the event, highlighting the long-term burden on mental health.

Indirect impacts occur through gradual environmental and socio-economic disruption. Climate change disrupts livelihoods, leads to displacement, reduces social cohesion, and damages ecosystems. All of these changes contribute to chronic stress, uncertainty, and grief. Elevated temperatures are associated with aggression, interpersonal violence, substance abuse, and suicide. Air pollution has also been associated with anxiety, cognitive impairment, and reduced life satisfaction. Beyond exposure, the rising global awareness of the climate crisis has created psychological effects of its own, particularly among young people. Feelings of eco-anxiety, climate anxiety, and ecological grief are now widespread, reflecting a growing sense of fear, sadness, and helplessness about the planet's

#### **Acute Climate Events and Mental Health Outcomes**

Climate-related disasters devastate both individuals and communities in ways that go far beyond physical injury and economic loss. Survivors of floods, landslides, and cyclones often report trauma, shock, anxiety, and depression. The loss of homes and forced displacement contribute to a loss of identity and autonomy, leaving individuals with feelings of sadness, anger, and diminished self-worth. At a community level, disasters disrupt social networks, weaken cohesion, and trust. Domestic violence, child abuse, and other forms of interpersonal conflict frequently rise in post-disaster settings. These events increase the demand for mental health services, often putting additional strain on the health system.

## **Chronic and Slow-Onset Impacts**

While sudden disasters have visible effects, the slow-onset impacts of climate change pose equally serious risks. Prolonged exposure to heat is linked to mood disorders, anxiety, reduced self-regulation, aggression, and suicide. For those with pre-existing psychiatric conditions, heat can be especially dangerous, particularly since some medications increase vulnerability to heat stress. Drought is another slowmoving crisis with deep psychological conseamong quences, especially farming



- 1. Climate Change and Mental Health: An Emerging Public Health Challenge
- 2. Summary of selected notifiable diseases reported (20th 26th Sep 2025)
- 3. Surveillance of vaccine preventable diseases & AFP (20th 26th Sep 2025)

3

communities it is associated with depression, anxiety, financial stress, and in some cases, suicide. Air pollution further compounds the problem, as it is increasingly associated with higher rates of depression, cognitive impairment, and anxiety. The loss of ecosystems and familiar environments can also cause profound emotional pain. This distress, called "solastalgia," which resembles homesickness, but occurs while still living in one's home environment, as it undergoes visible environmental degradation. Migration triggered by resource scarcity, coupled with competition for land, water, and jobs, can cause hostility, political conflict, and violence, further amplifying psychosocial distress.

# **Vulnerable Populations and Inequities**

The mental health impacts of climate change are affected by social inequalities, with vulnerable groups facing disproportionate risks. Individuals already living with mental illness may experience worsening symptoms, while certain medications increase their susceptibility to heat stress. Economically disadvantaged communities lack resources to recover from environmental shocks, leading to chronic stress and uncertainty. Children and youth are especially prone to climate anxiety and disrupted education, while the elderly face heightened risks from heat stress, isolation, and reduced mobility. Outdoor workers, such as farmers and daily wage labourers, are exposed to extreme heat, polluted air, drought, and pesticides, further increasing their risks.

These vulnerabilities are often worsened by factors such as poverty, social marginalisation, and systemic inequalities. When climate-related stress is added to these existing challenges, it increases the risk of depression, anxiety, substance misuse, violence, and reduced productivity. Addressing mental health in the context of climate change, therefore, requires both targeted support for vulnerable groups and broader action to tackle social determinants and ensure equity.

# **Health System Challenges**

Globally, mental health services already face significant gaps, with resources often falling short of population needs. Climate change is adding new pressures to an already fragile system. In Sri Lanka, health systems are likely to feel the strain through increasing demands for post-disaster psychosocial support, higher caseloads of climate-related stress disorders, and greater pressure on community health workers. The integration of psychosocial support into disaster preparedness remains limited, and funding for mental health continues to lag behind other health priorities. Without adaptation, the gap between need and service availability will widen as climate change intensifies.

### Recommendations for Mitigating Mental Health Impacts

The World Health Organisation (WHO) recommends five key approaches to mitigate the mental health and psychosocial impacts of climate change, emphasizing integration, collaboration, and resource allocation to build resilience and reduce vulnerabilities.

Integrate climate change into mental health policies and programs: Enhance mental health systems by incorporating climate risk assessments, training health workers in psychosocial support, and integrating mental health and psychosocial support (MHPSS) into national health plans and emergency preparedness strategies.

Embed MHPSS in climate and health policies: Incorporate mental health support into climate strategies through cross-sectoral collaboration (e.g., urban planning, drought

management), workforce training, climate-resilient infrastructure, and effective communication and monitoring systems for mental health risks.

**Utilize global commitments**: Utilize frameworks like the Sustainable Development Goals (SDGs), Paris Agreement, and Sendai Framework to integrate MHPSS, focusing on human rights and support for vulnerable groups, supported by tools such as the WHO Health Emergency and Disaster Risk Management Framework.

Adopt multisectoral and community-based approaches: Promote community-led MHPSS initiatives, encourage climate activism with youth involvement, and develop holistic, culturally sensitive programs to enhance collective resilience and address underlying mental health issues.

Address funding gaps: Tackle the underfunding of mental health and climate health responses by integrating MHPSS into climate funding streams and highlighting co-benefits.

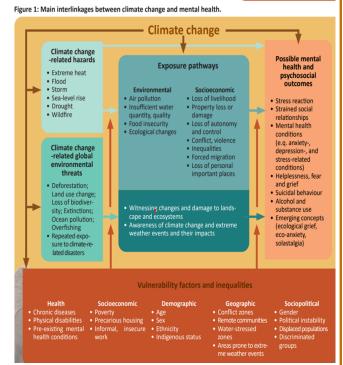


Photo credits - Mental health and Climate Change: Policy Brief (WHO)

#### Compiled by:

Dr Chamila Balasuriya Medical Officer Epidemiology Unit Ministry of Health

#### **References:**

- 1. Catalano, K., Fatima, H., & Andrews, A. (n.d.). A Public Health Approach to Building Mental Wellness and Resilience in the Face of the Climate Crisis: Recommendations for Community Groups APHA Authors and Contributors.
- Mental health and Climate Change: Policy Brief Key points. (WHO).
- Speiser, M., Belkin, G., Muqueeth, S., Prussia, L., Susteren, L. van, Charlson, A. / F., Chen, K., Hayes, K., Markowitz, E., McCurdy, L., & Walker, S. (n.d.). MENTAL HEALTH AND OUR CHANGING CLIMATE IMPACTS, INEQUITIES, RESPONSES 2021

*WER Sri Lanka* - Vol. 52 No. 40 27th Sep- 03rd Oct 2025 Table 1: Selected notifiable diseases reported by Medical Officers of Health 20th - 26th Sep 2025 (39th Week) <u>\*</u> ဖ ω O က N က C a ω  $\alpha$ Leishmania-α  $\alpha$  $\alpha$ /  $\infty$  $\infty$ <u>ග</u> Meningitis N  $\alpha$ C  $\alpha$ က Chickenpox മ က ω C က N က ⋖ C m C  $\infty$  $^{\circ}$ Ω Viral C ⋖ a C C  $\alpha$ 9/ Leptospirosis က  $\infty$  $\infty$ C a N  $\infty$ က F. Poisoning Ω  $\alpha$  $\alpha$ ⋖ En. Fever മ က  $\alpha$ C Ω C C က ထ Dysentery Ω က C ⋖ 9/ **Dengue Fever** മ C ത က a က  $\infty$  $\infty$ ⋖

Nuwara Eliya

Galle

Matale

Gampaha

Kalutara

Kandy

Solombo

RDHS

Hambantota

Matara

Jaffna

Kilinochchi

Mannar

Mullaitivu Batticaloa

Vavuniya

2025 Total number of reporting units 360 Number of reporting units data provided for the current week: 359. C\*\*-Completeness Sep (esurvillance.epid.gov.lk). T=Timeliness refers to returns received on or before  $26^{th}$ Source: Weekly Returns of Communicable Diseases (esurvillance A = Cases reported during the current week. B = Cumulative cases for the year.

SRILANKA

Kalmunai

Kegalle

Anuradhapura Polonnaruwa

Monaragala

Badulla

Ratnapura

Trincomalee

Ampara

Kurunegala

Puttalam

Table 2: Vaccine-Preventable Diseases & AFP

20th - 26th Sep 2025 (39th Week)

Disease	No. of Cases by Province									cases cases during during current same	during same	f Total number of cases to date in	Total num- ber of cases to date in	Difference between the number of cases to date
	W	С	S	N	Е	NW	NC	U	Sab	week in 2025	week in 2024	2025	2024	in 2025 & 2024
AFP*	00	00	00	00	00	00	00	00	00	00	02	47	56	-16%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	02	01	02	00	01	01	01	08	06	190	224	-15.1 %
Measles	00	00	00	00	00	00	00	00	00	00	00	01	285	-99.6%
Rubella	00	00	00	00	00	00	00	00	00	00	00	04	02	-100%
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Tetanus	01	00	00	00	00	00	00	00	00	01	00	09	05	80 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	04	06	-33.3 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	18	53	-66 %

#### Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam,

AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP\* (Acute Flaccid Paralysis ), Japanese Encephalitis

CRS\*\* =Congenital Rubella Syndrome

NA = Not Available

Take prophylaxis medications for leptospirosis during the paddy cultivation and harvesting seasons.

It is provided free by the MOH office / Public Health Inspectors.

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication

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Dr. H. A. Tissera Actg. CHIEF EPIDEMIOLOGIST EPIDEMIOLOGY UNIT 231, DE SARAM PLACE COLOMBO 10