



# Climate Change: Eco-Anxiety and Uprising Challenge to Mental Health and Wellbeing

Harshita Sharma

Counselling Psychologist

Remarkable Education, Jodhpur

Author's Name: Harshita Sharma, Counselling Psychologist, Remarkable Education Jodhpur.

Email id: [sharma.harshita245@gmail.com](mailto:sharma.harshita245@gmail.com)

Mobile: 9828107666

Postal address: 'Sharda Sadan', House no- J-4b, S. C. Bose colony, Defence Lab. Road, sector#3,  
Ratanada, Jodhpur (Rajasthan). 342001

## Abstract

Global climate change is advancing, and it is widely acknowledged as one of the greatest global health hazards in the twenty-first century. Although climate change may have direct psychological and existential repercussions, many individuals are already experiencing indirect effects such as despair, socio-ethical paralysis, and a loss of well-being. Direct heat exposure, harsh weather, air pollution, reduced local food supply, and mental stress are the main health problems faced. While the importance of physical health has been emphasized, the current scenario suggests that climate change and environmental changes can have a significant impact on psychological well-being and mental health via a variety of ambiguous pathways, particularly among those with pre-existing gullibility or those living in ecologically vulnerable areas. Mental health impacts range from psychological distress, anxiety, anger, and depression to higher addictions and suicide rates, with effects felt at both the individual and communal level. In order to prevent wide range of diseases, improve public health readiness, and reduce risk, an effective public health response to climate change is required. Efforts to improve mental health access and measures to mitigate climate change throughout time would help in dealing with the challenge of climate change in the future. Scientific decision-making based on public health ethics will aid in the management of uncertainty and the improvement of health, environmental, and economic outcomes.

**Keyword:** Global climate change, Mental health, Eco-anxiety, Psychological well-being.

## Introduction

### CLIMATE CHANGE

Climate change is a global problem encompassing social, economic and a political sphere which affects the social and environmental determinants of health, including access to clean air and drinking water, sufficient food, and secure shelter. Earth's climate is now fluctuating at faster rate than at any point in the history of modern civilization, Global climate change has already resulted in a wide range of impacts across every area of the country and many affected various sectors of the economy which is further expected to grow in the coming decades.

Climate change is the significant, long-term changes in the global climate. The global climate is the chain of system comprising sun, earth and oceans, wind, rain and snow, forests, deserts and savannas, and everything people do, too.

### MENTAL HEALTH

Mental health is an umbrella term enclosing a wide range of mental health states, from diagnosable mental illness and mental health difficulties at one end of the spectrum to mental wellbeing and a state of burgeoning at the other. Everyone has a mental health condition, just as everyone has a physical one. Thus, the term mental health doesn't in itself indicate whether a person is experiencing any psychological distress or mental health difficulties.

### MENTAL WELLBEING:

A person's ability to function cognitively and emotionally in a productive and satisfying manner is demonstrated by mental wellbeing, which is a positive state of psychological and emotional health. Wellbeing is accomplished by optimal development, a "meaningful" life, and the fulfilment of essential human needs for autonomy, competence, and relatedness, in addition to positive emotions.

Mental wellbeing is a fundamental part of our overall health. Mental wellbeing, which incorporates our internal dynamics and how we characterize our lives, is an important aspect of health. In general, mental wellbeing refers to prospering in different aspects of life, such as relationships, job, recreation, and so on, despite ups and downs. It's the knowledge that we separate from our problems and the belief that we can handle those problems. It incorporates how a person thinks and deals with his/her emotions. Some traits of mental health wellbeing are:

- 1) Self-acceptance
- 2) Sense of self as a part of something greater
- 3) Sense of self as independent rather than dependent on others.
- 4) Accurate perception of reality
- 5) Desire for continued growth.
- 6) Optimism.
- 7) Determination.

## ECO-ANXIETY

Anxiety stems when our body perceives a threat and it responds with the fight-flight-freeze survival mechanism. We frequently consider these perceived threats to be based on unreasonable thoughts and irrational fears.

Anxiety about environmental issues can originate from personal experience with, or our loved ones being at risk of, climate-related extreme weather conditions such as hurricanes, droughts, and wildfires. Environmental degradation and proof of humans' harmful impact on the environment is frequently covered in various media platforms and is often overwhelming for people. Extreme weather occurrences have sparked civil wars and widespread protests, wreaked havoc on people's homes, and wreaked havoc on ecosystems.

Eco-anxiety is a word that has gained popularity in recent years to describe our persistent worry of environmental disaster when confronted with the facts of the climate crisis. Eco-anxiety does not have a medical definition, it is believed to be a persistence state/condition where a person's current or future environmental concerns are interfering with their daily lives, their ability to work, or their capacity to care for themselves. The American Psychology Association (APA) defines eco-anxiety as **“the chronic fear of environmental cataclysm that comes from observing the seemingly irrevocable impact of climate change** and the associated concern for one's future and that of next generations”.

## IMPACT OF CLIMATE CHANGE ON MENTAL HEALTH AND WELLBEING

Although climate change may have direct psychological and existential consequences, a large number of people are already suffering from indirect consequences such as depression, socio-ethical paralysis, and a loss of well-being as a result of it.

Three classes of impact of Climate Change on mental health have been identified (Doherty & Clayton, 2011; Albrecht et al., 2007; Costello et al., 2009; Page & Howard, 2010). These are:

- i) Direct (mental health injuries as a result of the acute or traumatic effects of emergency events)
- ii) Indirect (threats to wellbeing due to the observed impacts of CC, as well as the effects of living in a state of existential threat and uncertainty)
- iii) Psychosocial impacts (which relate to the community and social impacts of CC, although there does not yet appear to be any literature which explains these effects)

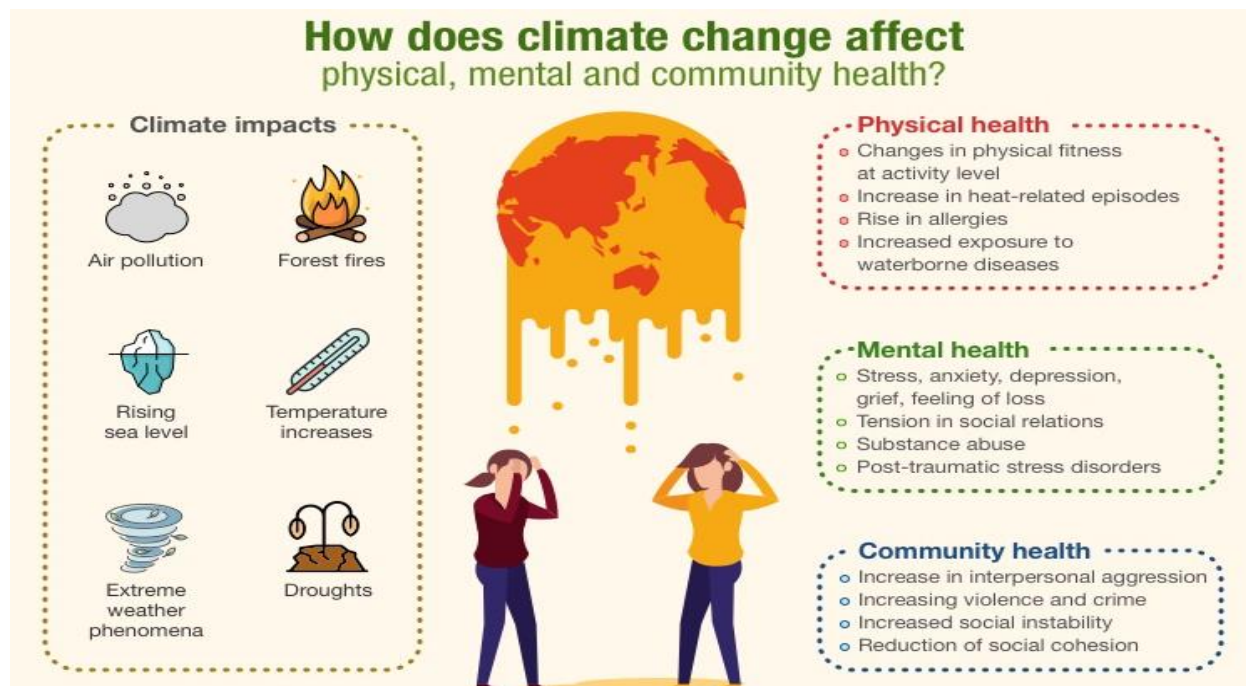


Fig. 1: How does climate change affect physical, mental and community health?, US Global Research Programme.

Impacts related to climate change are evident and to become increasingly disruptive across globe such as human health, agriculture and food security, water supply, transportation, energy, ecosystems etc. The magnitude of ecosystems like forests, beaches, and wetlands to guard the impacts of intense episodes like fires, floods, and severe storms is being inundated affecting human health and wellbeing through intense weather events and wildfires, decreased air quality, and diseases transmitted through insects, food, and water.

### 1) Ambient temperature and mental health

Heat waves have been associated with mental and behavioral disorders such as stress, anxiety, dementia etc. Increased exposure to heat is likely to become more common with the rise in the global temperatures leading to physical as well as psychological distress and exhaustion. Various researches highlight increase in rates of criminality, suicide and aggression have been observed during the hot summer months, suggesting a link between aggressive behaviors and temperatures.

### 2) Psychological distress due to climate related disasters

Disasters associated to climate such as floods, hurricanes, and bush-fires are often syndicated with stress-related psychiatric disorders. Individuals exposed to life threatening situations are at a considerable risk of developing post traumatic stress disorder (PTSD), acute/transient psychosis, adjustment related disorders, relapse of bipolar and anxiety spectrum disorder which are associated with impairment in the quality of life and significant subjective distress. Confronted with the deprivation of home, environment, social structures and loved ones, an individual may develop a bereavement or depression.

### 3) Drought, Psychological distress and suicide

Global climate dynamic is likely to inflame droughts in the coming years. Researches show a high correlation between drought, flood and suicide. Problems associated like economic hardships due to crop failure, inflation/rise in expenses of food and other goods, decrease in purchasing power leading

to malnutrition and risk of other infections and exposure to heat can lead to increased rates of suicide attempts and psychological distress.

#### 4) Economic changes due to climate change and mental health

Under economic stress, social capital, which includes social cohesion and community participation, is stretched. A decrease in social capital can cause a decrease in happiness and wellbeing and may also affect the onset of mental health problems. Economic constraints can also have an adverse impact of healthcare seeking, especially for mental health. During times of economic hardship, the society's ability to provide therapy may be harmed.

#### 5) Children and climate change

Children represent another population likely to be the most vulnerable to the impact being exposed to an emotional experience witnessing environmental changes representing powerful sources of stress. Various studies suggest potential severe and enduring impacts on the mental and physical health of individuals, particularly in light of the physical brain changes which can result as a consequence of chronic depression and PTSD in childhood and adolescence – which, in turn, affect cognitive functions such as emotional regulation, memory capacity etc. Climate changes like global warming can boost emotions like aggression and frustration in children developing further behavioral and mood disorders.

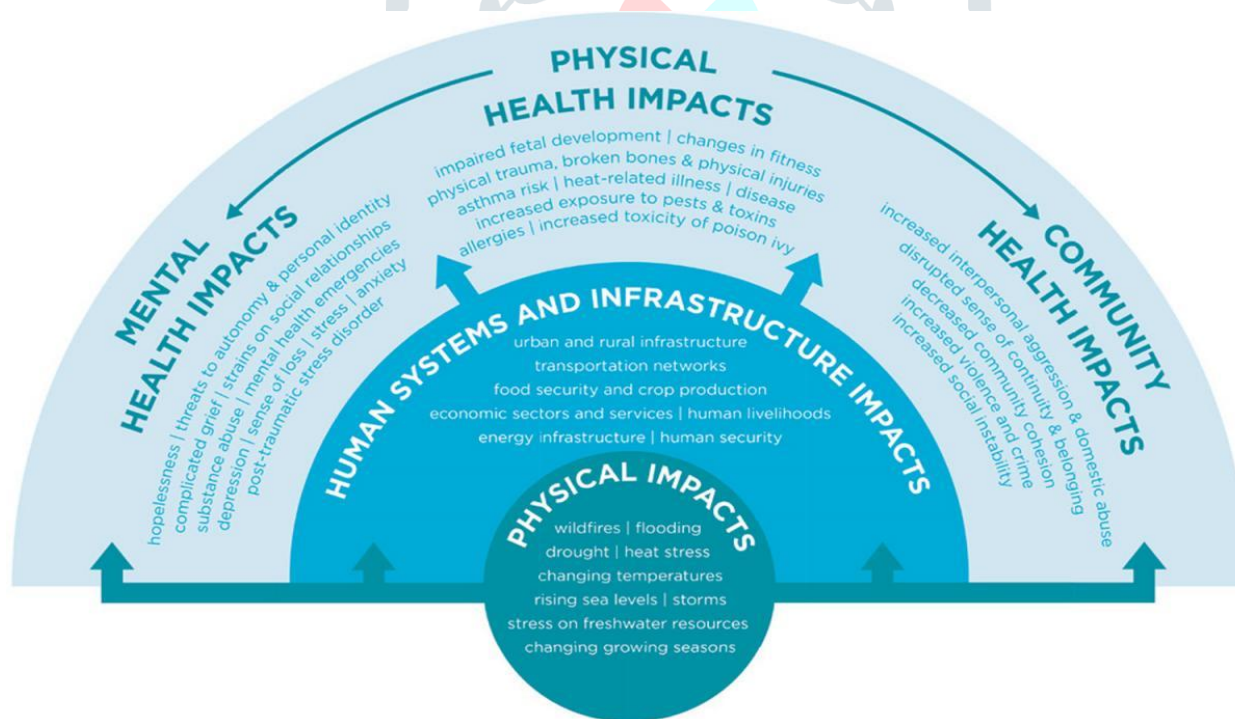


Figure 2: Mechanisms of climate change impact on human well-being.

## Review of Literature

Various attempts have been made to study and understand how an individual can play a significant role in responding to climate change physically, mentally and emotionally and what are the impact of these changes on one's overall health.

There is a substantial amount of study on the relationship between mental health and acute and chronic environmental stressors like Fritze et al 2008, Lambert and Lawson 2012, Kemp and Palinkas 2015, Doherty 2018, Manning and Clayton 2018 etc. In terms of acute stressors, there are historical examples of negative psychological symptoms, such as Post-Traumatic Stress Disorder (PTSD), which occurred in the UK and Australia in 1968 and 1974, respectively, following flood catastrophes (Bennet 1970 and Abrahams et al 1976).

Similarly for chronic stressors, the relationship between psychological well-being and connection to the natural environment and green spaces, particularly in urban areas, has a long and rich body of research (James 1892, Kaplan et al 1972, Parry-Jones 1990, Davis 1998, Kuo 2001, Lee and Maheswarn 2010, Okvat and Zautra 2011, Tsai et al 2018).

Young people exposed to high levels of trauma from Hurricanes Katrina and Gustav have long-term PTSD and depression as long as 3 years after the disaster, according to Weems and Banks (2015).

Lambert and Lawson (2012) even found professional counsellors who serviced those affected by Hurricanes Katrina and Rita had suffered posttraumatic outcomes from their personal experiences as well as 'compassion fatigue' from treating evacuees. In recent years, research on the acute, chronic, and indirect effects of environmental stressors on mental health has expanded to study the impact of climate change.

In a review of the literature, Manning and Clayton (2018) found that acute climate-related events, such as extreme and unexpected weather occurrences, can induce severe psychological trauma as a result of injury, death of loved ones, property loss, and shock.

Bryant et al (2014) discovered that as many as 15.6 percent of a high-affected population showed signs of PTSD following bushfires in Australia in 2009, which resulted in 173 deaths and 3500 buildings damaged. The literature on the association between climate change and mental health is dominated by studies on the effects of acute climate-related events on mental health, such as flooding and storms.

A study by Werritty et al (2007) on seven locations in Scotland affected by flooding found psychological trauma was disproportionately felt by the elderly and most vulnerable. A few years later, Brisley et al (2012) found elderly persons, those with chronic disease, mental illness, impairments, place-based occupations, the homeless, living in remote and rural areas with low incomes were more susceptible to physical and mental health impacts of climate change. Although, the study only briefly touched on mental health and indicated there was limited research in the UK.

## Discussion

Climate change is a reality, already started assuming an ugly look which warrants immediate attention at global level specially in developing nations like India which are the most risk prone and vulnerable nations to the adopt and build resilience to everlasting impact of climate changes. Every individual around the globe is equally responsible for adding greenhouse emissions in the atmosphere with their heavy reliance on fossil fuels. It is individual engagement and behavioural change that matter in responding to the challenge of climate change. The consequences of climate change are unevenly distributed across societies and nations, which equally implies to threats to mental health from sudden and slowing moving climatic events. Globally, there is considerable research linking psychological trauma and illness to those suffering loss and injury following climatic events wherein population

suffering the most are the poor, the elderly, children, indigenous and minority groups and those already suffering mental illness. While there are programmes and attempts to help communities build physical and mental resilience in order to adapt to these impacts, a focus on the most vulnerable aspects and addressing the core causes of vulnerability is still a work in progress.

As climate change is anticipated to have a wide range of effects on human mental health, it is critical to adopt equitable steps to either slow down global warming or develop strategies to deal with the issues provided by adaptation. Reduced reliance on fossil fuels, development and use of alternative efficient power sources, reduction of encroachment on green cover, and other comparable actions are all required to reduce greenhouse gas emissions. Over the next few decades, there is a growing global consensus on the need to reduce carbon footprints per person while also addressing imbalances between rich and poor countries. To address the threat of climate change, inter-sectoral and international collaboration is required to enact policies to reduce carbon emission and combat global warming. In the meantime, effective therapeutic facilities for mental health problems should be established. Another method to alleviate the psychological effects of climate change is to promote positive mental health and wellbeing.

Another method to mitigate the psychological effects of climate change is to promote positive mental health. Human adaptability and coping can limit the effects of mental stress due to climate change. Yoga and other indigenous stress-reduction techniques can be effective and acceptable to help people deal with the daily stressors. Debt abolition and economic support to farmers could be another way to prevent suicide fatalities caused by secondary effects of climate change. The creation of co-operatives and the protection of farmers from loan sharks may help to lower the number of farmers who commit suicide because of crop failures. Furthermore, providing subsidies and guaranteed income during drought seasons could reduce the farmers' economic and psychological stress.

By bringing together mental health practitioners, policy makers, academics, activists and individuals from affected communities, we can identify areas of common understanding on this complex issue and seek collaborations where understanding is limited. This is an opportunity to present the most recent research findings from around the world, as well as to encourage discussion among a wide range of professions and views on new ideas and methods to this expanding corpus of multidisciplinary research.

## References:

B.D. Santer et.al., "A search for human influences on the thermal structure of the atmosphere," Nature vol. 382, 4 July 1996, 39-46

Gabriele C. Hegerl, "Detecting Greenhouse-Gas-Induced Climate Change with an Optimal Fingerprint Method," Journal of Climate, v. 9, October 1996, 2281-2306

V. Ramaswamy et.al., "Anthropogenic and Natural Influences in the Evolution of Lower Stratospheric Cooling," Science 311 (24 February 2006), 1138-1141

B.D. Santer et.al., "Contributions of Anthropogenic and Natural Forcing to Recent Tropopause Height Changes," *Science* vol. 301 (25 July 2003), 479-483.

Agriculture Food Organization (2008) *The State of Food and Agriculture 2008*. Food and Agriculture Organization, Rome

Ahern MM, Kovats RS, Wilkinson P, Few R, Matthies F (2005) Global health impacts of floods: epidemiologic evidence. *Epidemiol Rev* 27:36–46

Alston M, Kent J (2004) *Social impacts of drought: a report to NSW agriculture*. Centre for Rural Social Research, Charles Sturt University, Wagga

Anderson CA, Anderson KB (1998) Temperature and aggression: paradox, controversy, and a (fairly) clear picture. In: Geen R, Donnerstein E (eds) *Human aggression: theories, research and implications for policy*. Academic Press, San Diego, pp 247–298. <http://www.psychology.iastate.edu/faculty/caa/abstracts/1995-1999/98AA.html>

Australian Bureau of Statistics (2004) *Year Book Australia, 2004 Economic impact of drought in 2002–2003*

Berry HL (2007) "Crowded suburbs" and "killer cities": a brief review of the relationship between the urban environment and mental health. *NSW Public Health Bull* 18:222–227

McMichael AJ, Woodruff RE, Hales S. Climate change and human health: Present and future risks. *Lancet*. 2006;367:859–69.

Pandve HT. Global initiatives to prevent climate change. *Indian J Occup Environ Med*. 2008;12:96–7.

Trenberth KE. Climate variability and global warming. *Science*. 2001;293:48–9.

Zhou G, Minakawa N, Githeko AK, Yan G. Association between climate variability and malaria epidemics in the East African highlands. *Proc Natl Acad Sci U S A*. 2004;101:2375–80.

Majra JP, Gur A. Climate change and health: Why should India be concerned? *Indian J Occup Environ Med*. 2009;13:11–6.

Anderson CA. Heat and violence. *Curr Dir Psychol Sci*. 2001;10:33–8.

Herrington, R. J. (2017). Trauma, PTSD and the Developing Brain. *Current Psychiatry Reports*, 19(10): 69.

Hulme, M. (2009). *Why We Disagree About Climate Change: Understanding controversy, inaction and opportunity*. Cambridge: Cambridge University Press

Weir, J. M., Zakama, A., & Rao, U. (2013). Developmental Risk I: Depression and the Developing Brain. *Child and Adolescent Psychiatric Clinics of North America*, 21(2): 237-259.

Waite, T. D., Chaintarli, K., Beck, C. R., Bone, A., Amlôt, R., Kovats, S., Reacher, M., Armstrong, B., Leonardi, G., Rubin, G. J. & Oliver, I. (2017). The English national cohort study of flooding and health: cross-sectional analysis of mental health outcomes at one year. *BMC Public Health*, 17: 129.

<https://www.iberdrola.com/social-commitment/what-is-ecoanxiety>

Bourque, F. & Willox, A. C. (2014). Climate change: The next challenge for public mental health? *International Review of Psychiatry*, 26(4): 415-422.



Clayton, S., Manning, C. M., Krygsman, K., & Speiser, M. (2017). *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Washington, D.C.: American Psychological Association, and ecoAmerica.

Costello, A., Abbas, M., Allen, A., Ball, S., Bellamy, R., Friel, S., Groce, N., Johnson, A., Kett, M., Lee, M., Levy, C., Maslin, M., McCoy, D., McGuire, B., Montgomery, H., Napier, D., Pagel, C., Patel, J., de Oliveira, J. A., Redclift, N., Rees, H., Rogger, D., Stevenson, S. J., Twigg, J., Wolff, J. & Paterson, C. (2009). Managing the health effects of climate change; Lancet and University College London Institute for Global Health Commission. *Lancet*, 16(373): 1693-1733.

K. Usher, J. Durkin, N. Bhullar. Eco-anxiety: how thinking about climate change-related environmental decline is affecting our mental health *Int J Ment Health Nurs*, 28 (2019), pp. 1233-1234, 10.1111/inm.12673

S. Clayton, C.M. Manning, K. Krygsman, M. Speiser. *Mental health and our changing climate: impacts, implications, and guidance*. American Psychological Association, and EcoAmerica, Washington, DC (2017)

