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Mental Health in a Changing Climate: A situational analysis of the impacts of climate change on mental health in India

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Introduction

Climate change is the most pervasive and ubiquitous crisis of our times, one with significant bearing on our futures. The United Nations Framework Convention on Climate Change (UNFCCC) defines it as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods"[1].

The Earth's climate has changed throughout its history. What distinguishes the current phase is that it is mainly attributable to human activity, rather than natural phenomena and it is occurring at a significantly faster rate than it has in the last 10,000 years[2].

Climate change has an all-encompassing effect on all living beings. It affects food systems, habitable land and water bodies, biodiversity, and much more. Although climate change, at its current trajectory, can still be slowed through sustained global action, it continues to worsen despite widespread recognition of the risks it poses to humanity. Accelerated patterns of economic development and technological advancement, often driven by unequal consumption and resource use, have played a central role in shaping the crisis[3,4].

In the face of the myriad challenges that accompany climate change, there is an inevitable consequence on people's mental health, particularly through the social, economic, and cultural drivers of mental health, such as livelihoods, financial security, housing, food security, resource availability and distribution, social dynamics, among other factors.

This issue brief aims to illustrate the consequences of the climate crisis and its effect on mental health and to spotlight those most vulnerable and the issues that they face, with a particular focus on the Indian context.

Climate change in India

India's geographical, cultural, social, and economic diversity shapes climate change impacts and experiences for different communities and regions. Such diversity also influences the ability of communities to respond to climate-related risks. Within India, prevailing structures of oppression and discrimination, deepening economic inequity, and unequal access to resources and support result in disparate experiences of climate change.

In recent years, we have witnessed a growing frequency of extreme weather events – climate phenomena that are markedly different from what is supposed to be 'normal'. They include extreme temperatures (from extreme heat to cold), heavy precipitation and flooding, extreme storms such as cyclones, and abnormally low moisture in the atmosphere that results in droughts – all occurring at a higher frequency and intensity than in the past[5].

The rapidly warming climate has also accelerated the melting of ice sheets and glaciers, contributing to rising sea levels and coastal erosion. This, in turn, affects livelihoods of communities that depend on coastal ecosystems[6].

Sometimes extreme weather events and other climate phenomena are so intensified that they result in full-fledged disasters. All these events have a high human cost, delivering a critical blow to infrastructure, socio-economic activities, and the well-being of communities and individuals. They are further compounded by other anthropogenic factors, such as deforestation and ill-planned development[7].

These events are deeply distressing for the affected communities. With the climate crisis showing no signs of stopping, it is critical to anticipate its impending effects and undertake ongoing measures to minimise their human and economic cost.

Box 1: Major contributors to global carbon emissions

As of 2023, the largest CO2 emitters are China, the USA, and India, respectively[8]. Though India accounts 8% of the global carbon emissions, it is the most populous country in the world, housing one-sixth of the world's total population. Its per-capita emissions are less than half of the world's average carbon emissions[9,10].

Key issues in India

Effect on industries essential to survival: The climate crisis impacts industries fundamental for survival, such as fisheries, agriculture, forestry, water and sanitation, housing, energy and much more, having far-reaching consequences on livelihoods, economic stability and social well-being.

Displacement: In 2024, India recorded more than 54 lakh movements due to disasters, two-thirds of which were attributable to floods[11]. This widespread displacement results in cultural erosion, social tensions, livelihood disruption, disruption of access to resources and essential services, and more[12].

Health-related challenges: The Lancet Countdown on Health and Climate Change's 2024 report revealed the increased incidence of climate-induced health challenges, particularly heat-stress, health issues due to anthropogenic air pollution, increased vulnerability to infectious diseases, and food insecurity and malnutrition due to droughts[13].

Mental health and climate change

Erratic climatic changes and unpredictable weather patterns create mental health challenges for individuals and communities, primarily due to stress stemming from altered living conditions. Environmental ramifications such as pollution, food insecurity, and ecological imbalance, as well as socio-economic disruptions such as livelihood loss and infrastructural damage, increasing mental health vulnerabilities. Vulnerabilities within the existing population are exacerbated by climate hazards and long-term climate risks, leading to aggravated inequities[14].

Understanding the climate-related determinants of mental health requires an examination of the interconnected social, economic, and environmental processes that shape the lived experiences of individuals.

In India, a recently conducted survey of 10,751 Indian adults found that the vast majority reported experiencing extreme weather or related impacts in the past year, including heat waves (71%), droughts (52%), and air pollution (52%)[15].

Additionally, another survey published by the Centre for Science and Environment (CSE) found that 94% of Indian youth (ages 14 – 25) reported being directly impacted by climate change in their everyday lives, citing disruptions such as heatwaves, shifts in weather

patterns and increased stress[16]. Moreover, 88% observed environmental changes in their region over the past 5–7 years, with about half of the respondents reporting that they experienced heightened anxiety or stress related to worsening climate conditions.

Climate change-related psychological phenomena

The impact of climate change on individual well-being has led to the emergence of concepts specific to climate-related psychological phenomena. A growing number of individuals are experiencing a phenomenon called 'eco-anxiety', which is characterised by persistent fear and apprehension about the future consequences of climate change[17]. This is accompanied by a widespread rise in negative emotions like hopelessness, grief, and a sense of powerlessness in the face of environmental degradation and climate change[17].

In this context, concepts such as 'solastalgia' have emerged to describe the distress caused by the negative transformation of one's home environment[18]. A related concept is ecological grief, defined as the sorrow and sense of loss experienced in response to the degradation or disappearance of species, ecosystems, and familiar landscapes[19]. Together, these concepts demonstrate that the consequences of climate change extend beyond physical damage, inherently affecting the emotional and psychological health of people worldwide.

Exacerbation and development of mental health conditions

Contemporary literature recognises climate change as a major threat to mental well-being and is linked to a range of psychological conditions arising out of climate risks. These risks can result in psychosocial outcomes such as stress , strained social relationships, and mental health conditions like depression, anxiety, and suicidal behavior, along with increased alcohol and substance use arising from witnessing or experiencing damage to landscapes and ecosystems[20].

Certain groups may face heightened vulnerability. For instance, individuals living with schizophrenia may be particularly susceptible to extreme heat, due to a combination of impaired thermoregulation, behavioural and cognitive challenges in responding to heat, and social inequities that reduce access to protective measures[21]. Direct exposure to extreme weather events like floods, wildfires, and severe storms is increasingly linked to the development of Post Traumatic Stress Disorder (PTSD)[22]. Among survivors, experiencing extreme weather-related trauma heightens the likelihood of anxiety disorders, with post-traumatic stress disorder posing a particularly high risk[23].

Climate change also affects mental health indirectly. For instance, it has been closely linked to food insecurity in India, due to food shortages attributable to temperature variations, erratic rain, and extreme weather events[24]. Food insecurity is associated with negative mental health outcomes such as depression, cognitive deficits, insomnia, and low life satisfaction[25].

These conditions demonstrate that the mental health consequences of climate change are both serious and multifaceted. Additionally, factors like forced migration due to natural disasters and changing ecological settings also have manifold effects, acting as significant stressors[26]. The congruence of environmental factors and psychosocial health implies that disruptions to an individual's or community's existing ecological setting will ultimately affect related psychological and social contexts, leading to increased stress and anxiety.

Effect on suicide rates

In the most severe instances, particularly within agricultural populations facing economic ruin from crop failure, these pressures have been linked to an increase in suicide rates[27]. New evidence suggests a troubling link between the escalating climate crisis and rising suicide rates, a burden that falls disproportionately on the Global South's most vulnerable populations[28].

For instance, a study in India found that a 1°C increase in temperature on a single day during peak agricultural season was linked to an average of 67 additional suicides, highlighting the profound mental health toll of climate change on agricultural communities[29]. The economic ramifications and food insecurity that follow climate-related changes like rising heat and droughts create conditions of extreme distress, particularly for farmers and other groups whose livelihoods are intrinsically tied to the environment[29].

Populations most vulnerable to climate change

While climate change is universal, its impacts are uneven. The Intergovernmental Panel on Climate Change (IPCC) recognises that "people who are socially, economically, culturally, politically, institutionally, or otherwise marginalised are especially vulnerable to climate change and also to some adaptation and mitigation responses"[30]. Vulnerability to adverse mental health effects of climate change too often coincides with these factors[31].

People in climate-dependent occupations

Climate change poses serious risks to outdoor workers who are directly exposed to rising temperatures, extreme weather events, and worsening environmental conditions[32]. Sectors such as agriculture, construction, transportation, and mining are particularly affected, with workers facing increasing health and safety challenges. One of the most significant threats is heat stress, which can lead to dehydration, heat exhaustion, heatstroke, and even death[33]. Prolonged exposure to high temperatures also impairs physical and cognitive performance, raising the likelihood of accidents and injuries on the job[33].

Beyond heat, climate change contributes to poor air quality, exposing outdoor workers to higher levels of pollutants such as ground-level ozone and particulate matter[34]. According to an article by the International Labour Organization (ILO), around 1.6 billion people are likely exposed to workplace air pollution, leading to an estimated 860,000 work-related deaths among outdoor workers each year[35].

In India, extreme weather events, including storms, floods, and droughts, pose immediate physical dangers and long-term disruptions to livelihoods[36]. For instance, agricultural workers may suffer from crop failures or delayed planting seasons, while construction projects may be halted due to unsafe conditions[37]. The burden of these risks is not evenly distributed. Workers in the Global South, particularly those in informal and unregulated employment, often lack access to healthcare, legal protections, and basic workplace safety measures, making them especially vulnerable[38].

AGRICULTURAL WORKERS

Agriculture is particularly sensitive to climatic variability. Sowing and harvesting periods are determined by the seasons, and irrigation relies on rainfall. With shifting and

increasingly unpredictable seasons, familiar routines and patterns are disrupted. Farmers are forced to adapt to such uncertainties, adding to their distress. Untimely droughts and unseasonable heavy monsoons affect crop yield and quality, at times even leading to crop failure. In addition to these challenges, farming is physically strenuous, which can pose serious health risks in the face of rising temperatures. Many agricultural workers face socio-economic disadvantages. Issues such as small landholdings, debt cycle, low income, and job insecurity interact with these climate-related challenges to compound distress[39].

As of 2023, agriculture accounts for 44% of the total employment in India; concerningly, there is a significant suicide crisis among this population[40]. In 2023, the National Crime Records Bureau (NCRB) reported that 10,780 farmers and agricultural labourers died by suicide[41]. In Maharashtra, 767 suicides occurred just in the first three months of 2025[42]. A 2023 study conducted in the Vidarbha and Marathwada regions of Maharashtra, where many of these suicides took place, found that climate change's effects on seed germination, productivity of crops and pest attacks, led the farmers to accrue debt that was a major cause for suicides[43].

FISHERPERSONS

The marine fishery industry is impacted by phenomenon such as an increase in the ocean temperature, ocean acidification, coastal flooding due to rising sea levels, changes in ocean currents, and increased frequency and intensity of storms. These challenges cause a decline in the yield of different oceanic species, reduce the number of fishing days, degrade coral reef habitats, and lead to infrastructure damage, thus having a significant negative economic impact on these communities[44]. Similar challenges are faced by the inland fishing industry[45]. Declining habitats, impacts from extreme heat or cold, changes in the development due to climate change, all influence fish stocks.

An article published by the Pulitzer Centre sheds light on the lived experiences of those dependent on marine fishing in Guppadipeta, a coastal village in Andhra Pradesh's Srikakulam district. It highlighted fisherpersons and fish sellers as being at the frontline of climate change, forced to adapt to factors such as erratic weather, coastal erosion, heat stress, and unpredictable fishing yields on the day to day. For a better chance to secure the survival of their families, many fishermen in Srikakulam migrate to other regions. Even then, they are forced to contend with challenges such as loss of fishing days due to fishing bans due to threat of cyclones. Climate change impacts their livelihoods, health, and quality of life. On ground, however, little is done to alleviate the complex web of distress in these communities[46].

Another article by Mongabay in 2023 highlighted how the effects of the Okhchi cyclone lingered six years after it occurred. Fishermen who experienced it firsthand recalled its enduring trauma, with some being unable to return to the sea, previously their main source of livelihoods. Still others are forced to return to it since it remains their only way to sustain themselves and their families. There is a complex web of intersecting issues -- financial loss, chronic physical health challenges, survival guilt, bereavement, and psychological trauma, which mingle and compound mental distress, Despite this immense harm to mental health, psychosocial support arranged by the government was extremely lacking or non-existent, leaving the onus of recovery on the communities themselves[47].

CONSTRUCTION WORKERS

The construction sector is often at the receiving end of a myriad of climate change-related challenges, where workers are directly exposed to high temperatures and air pollutants. This, in turn, affects psychological health through increased stress, anxiety, and mental fatigue, where construction workers are expected to maintain higher productivity rates despite adverse working conditions.

An article highlighting the plight of construction workers in Kerala explores how regional climate change intensifies these struggles for this critical sector[48]. Intense heatwaves in the state disproportionately affect construction workers, many of whom tend to be migrant laborers from other parts of the country. The extreme humid heat causes physical exhaustion, compelling workers to endure longer shifts and maintain higher productivity rates despite adverse working conditions. The impacts on their mental well-being are significant, manifesting as frustration and reduced cognitive function. Furthermore, women construction workers face compounded burdens, as the intense heat, combined with low pay, high turn-around work rates and a critical lack of sanitation facilities at sites, leads to physical discomfort and overwhelming psychological strain, increasing their anxiety and stress[49]. This becomes more pronounced due to the varied physiological changes women experience across different phases of the menstrual cycle and during pregnancy, heightening their vulnerability to heat stress and climate change induced discomfort.

People from marginalised genders and sexualities

Gender equality is far from being achieved around the world and continues to be a significant issue in the Indian context. Gender-based discrimination, deprivation of political and social power, forced societal expectations, and lack of access to resources may be exacerbated by climate change. Climate change, with its effects on livelihoods, lifestyles, migration, health, infrastructure, social tensions, and conflict, disproportionately affects women and LGBTQIA+ individuals, who are already immensely marginalised.

Due to differentiated gender roles, women are expected to perform housework and caregiving roles for children, the sick, and the elderly. Additionally, women are more likely to experience poverty, limited education opportunities, constricted decision-making and exposed to physical, emotional and sexual gender-based violence within families. Evidence shows that even a 1°C increase in average yearly temperature can heighten interpersonal violence against women in South Asia by 4.49%[50]. These factors influence and further exacerbate the vulnerability of women in the face of climate change.

The Gender Snapshot 2024 on the progress on Sustainable Development Goals revealed a concerning picture: women are significantly more food insecure than men, vulnerable to the effects of household air pollution, and susceptible to unemployment and poverty[51]. As per estimates, climate change is projected to thrust 158 million more women into extreme poverty. Furthermore, climate disasters can threaten a woman's security, privacy, and safety, making them vulnerable to intimate partner violence[52], forced marriages[53], and sexual exploitation[54].

Women are also engaged heavily in climate-dependent sectors such as farming, fishery industry, construction work, handicrafts creation and more, however, their contributions often go unrecognised or are undermined, with lower wages and higher job insecurity[55].

Pregnant people are susceptible to numerous health risks including a higher likelihood of miscarriages, birth defects, and other pregnancy related complications due to climate change[56]. Extreme weather events and climate-related disasters can also limit access to reproductive care facilities. A recent study found that women residing in flood-prone regions in India are more likely to have incomplete antenatal care visits[57]. Women who belonged to scheduled caste/scheduled tribe communities were two times more likely to have incomplete visits than other groups.

Academic literature on climate change and persons belonging to the LGBTQI+ communities is limited, particularly in the Indian context. Anecdotal accounts shed light on how climate change compounds the pre-existing distress of people in the community. Mongabay's interviews of transgender activists in South Asia revealed how climate change exacerbates

pre-existing vulnerabilities of transgender people[58]. Many reside in remote regions or slums, areas that are worst affected during climate catastrophes. When climate disasters strike, their homes and means of livelihoods are washed away, pushing them to resort to begging and sex work for their survival. Air and water pollution further makes them susceptible to illnesses and causes issues during gender-affirming care such as post-surgery recovery and hormonal treatments. Adding to these challenges, they are more likely to be denied access to essential shelter, food, and other resources that are available to most others.

Indigenous populations

In India, indigenous populations, also referred to as *adivasis* (translated to first inhabitants) have close ties to their land, with their economic, cultural, and social lives being deeply intertwined with the land they inhabit. In India, around 705 ethnic groups are categorised as Scheduled Tribes (STs) by the government, however, many groups who meet the criteria of being STs, are not yet classified correctly[59].

Indigenous people across the country face increased risk of incidence of mental health challenges such as depression, anxiety, and substance use disorders and face limited access to mental health care.

Due to historical and prevailing social injustices and systematic exclusion, indigenous people are prone to experiencing poverty, illiteracy, unemployment, and lack of access to healthcare. As per the 2021 Global Multidimensional Poverty Index, 65 million of the 129 million people belonging to the Scheduled Tribe population in India were living in multidimensional poverty, the most likely to be multidimensionally poor compared to other groups[60].

Despite being recognised[61] as stewards of forests, and thus being instrumental in their preservation, indigenous people are consistently dispossessed of their land due to development[62] and even 'conservation'[63] efforts that restrict access to familiar resources and ecologies. As a result, they are subject to disruption of livelihoods, erosion of culture, and fragmentation of social ties[64].

Furthermore, forests themselves are being altered by climate change due to the increased frequency of extreme weather events and increase in pests and diseases that affect the forest systems. For instance, forest-dwellers in Central India have observed a decline in the production of flowers, seeds, fruits, and tree gum they depend on for their income due to extreme temperatures and declining rainfall[65]. As a result, these communities face challenges such as economic insecurity and migration to unfamiliar regions for work, often being pushed into menial work.

Nomadic tribes, who depend heavily on natural resources and the seasons for their movements, are also threatened by climate change. The Bakharwal tribe in the Jammu and Kashmir region, who are pastoralists, are experiencing shifts in their migration patterns and the availability of grazing land for livestock[66]. As a result, due to climate change, relying on traditional lifestyles that have been followed for generations is increasingly difficult.

Within the ST category, certain communities are further classified particularly vulnerable tribal groups (PVTGs) due to being especially marginalised. A total of 75 tribal communities have been identified as PVTGs across 18 states and the Union Territory of Andaman & Nicobar Islands[67]. The livelihoods of PVTGs are predominantly based on climate-dependent activities like subsistence agriculture, forest produce, fishing, and hunting[68]. In the face of climate change, their means of survival, health, economic security, and social structures all come under threat, which further exacerbates their marginalisation[69].

Children and the elderly

Though people of all ages grapple with the consequences of climate change, children and elderly people are especially at risk. In 2021, UNICEF launched the Children's Climate Risk Index (CCRI)[70]. This was the first-ever report to detail the danger climate change presents to children, analysing eight different climate and environmental threats. The index revealed that approximately 1 billion children, which is nearly half of all children globally, reside in countries where they face an extremely high-risk from the effects of climate change[70]. The report warns that this situation is expected to worsen as the impacts of climate change intensify.

Children and adolescents are especially vulnerable to climate change impacts because of their rapidly developing physiology, higher susceptibility to disease, dependence on nurturing care and limited ability to avoid or respond to environmental threats[71]. They are also more likely than other age groups to experience fear and anxiety related to climate change. Heat stress, specifically, poses severe health risks for infants and young children.

Similarly, the effects of climate change of elderly people manifest through the worsening of pre-existing health and mental health conditions. A new study from the Yale School of Public Health (YSPH) indicates that the combination of an aging global population and rising extreme temperatures will significantly increase heat and cold-related deaths in the future[72]. The study highlights that the percentage of the world's population aged 65 and over is expected to grow from its current 9% to 16% by the year 2050, magnifying the public health risks associated with climate change. Older adults are particularly susceptible to extreme heat and cold for several reasons[73]. Physiologically, older populations have a reduced ability to regulate temperature, are more likely to experience chronic health problems, and they often experience social isolation, all of which increase their psychological vulnerability. In the last decade, heat-related deaths among people aged 65 years and above rose by roughly 85% between 2000–2004 and 2017–2021 in India[74]. Exposure to high temperatures, heatwaves, weather-related disasters, and air pollution further increases their risk of anxiety, depression, post-traumatic stress symptoms, sleep disturbances, and cognitive decline[75]. Additionally, many older adults have weakened immune systems, making them more susceptible to insect and water-borne diseases that are expected to become more prevalent. Their potential reliance on others for medical care and daily assistance also adds to their vulnerability during climate emergencies[75].

Disadvantaged caste communities

In India, the caste system is responsible for sustaining a rigid and enduring form of social stratification that filters down to shaping economic opportunities, social relationships and political power in society.

Climate change disproportionately affects historically disadvantaged caste communities in India due to their historical and structural marginalisation. These communities often have limited access to occupational pathways such as arable land and community resources such as forests, that amplify their socio-economic vulnerabilities. Their dependence on climate-sensitive livelihoods, such as agriculture and fishing, makes them particularly vulnerable to the impacts of changing weather patterns and climate change-related disasters[76]. The loss of property and livelihoods due to climate events disproportionately drives migration among socially disadvantaged caste groups. In the drought-prone Palamu district of Jharkhand, being from a Scheduled Caste increases the likelihood of migrating by 338%[77].

Additionally, marginalised caste groups face systemic barriers to accessing clean water, sanitation, healthcare, and secure livelihoods, all of which are exacerbated by climate-induced stress[78]. An article from The Wire illustrates how for Dalit communities in India, the

notion of climate change disaster is barely new, since they have long lived under constant socio-environmental vulnerability[79]. It highlights how their experiences of extreme heat, flooding, and hazardous working conditions (such as in brick-kilns, as highlighted in the article) reflect a reality where caste and climate converge to shape compounded disadvantages. Even before heightened climate impacts were widely discussed, systemic caste-based exclusion, marginalisation and livelihood precarity meant that Dalits faced chronic environmental risk and lack of protection or inclusion in rehabilitation efforts. Their exclusion from decision-making processes further limits their ability to adapt or access resources during climate crises. The intersection of caste and climate injustice leads to both material and psychosocial harm, adding to mental health burdens and perpetuating cycles of vulnerability.

People with disabilities

Individuals with disabilities, encompassing a wide spectrum of conditions affecting vision, hearing, speech, cognition, mobility, and other functional capacities, face disproportionate risks from climate change. This includes individuals with mental health conditions, who are also uniquely susceptible to the stresses and disruptions caused by climate-related events. Despite their heightened vulnerability, this demographic is consistently marginalised in climate change planning and response frameworks, in contrary to the UN Convention on the Rights of Persons with Disabilities (UNCRPD) which affirms their right to full and equal enjoyment of human rights including accessibility and emergency services[80]. Climate-related emergencies often increase existing barriers for persons with disabilities, particularly in accessing emergency support, healthcare, and essential services[81].

Moreover, these individuals often experience compounded vulnerability due to limited access to mental healthcare, inadequate social protection systems and the persistent stigma surrounding mental illness, particularly in low - and middle-income contexts such as India[82]. A significant contributing factor is the paucity of dedicated research exploring the specific impacts of climate change on this population, a gap that stands in stark contrast to the extensive studies on other at-risk groups. A Human Rights Watch report noted that following the 2004 Indian Ocean tsunami, persons with disabilities in India, including children with intellectual disabilities, were separated from their families and caregivers, leaving many without emergency services and financial support and increasing their risk of vulnerabilities[83].

Conclusion

Climate change is a looming, inescapable global crisis that demands immediate attention and urgent action. Despite being universal, it is disparate in its effects between and within countries. The countries that bear the brunt of its adverse consequences are often the least responsible for it.

The IPCC's Sixth Assessment report documents that vulnerable populations who have historically contributed the least to climate change are disproportionately affected, with an estimated 3.3 to 3.6 billion people in regions with considerable development constraints facing high vulnerability to climate change hazards[84]. The report notes that this vulnerability is further compounded by inequity and marginalisation linked to systemic factors. Through sustained adaptation and mitigation approaches that centre equity and

rights-based frameworks, climate responses can more effectively address the needs of those most affected while ensuring equitable outcomes.

In India, the right to mental healthcare is enshrined in the Mental Healthcare Act, 2017 (MHCA)[85]. However, we fall woefully short of ensuring universal access to care for everyone, especially the most marginalised. Climate change, with its wide-reaching effects on the social determinants of mental health, as well as its direct psychosocial impacts, complicates this predicament further. Existing social, economic, systemic, and structural inequities determine the ability of different individuals and communities to bolster themselves against the adversities of climate change, including its negative impact on mental health. It is thus essential to adopt a rights-based, intersectional approach to tackling this crisis, leaving no one behind.

Optimistically, the link between climate change and mental health is acknowledged in recent climate policies and disaster management plans, such as the National Action Plan for Climate Change and Human Health[86] and the National Disaster Management Authority's[86] guidelines on Mental Health and Psychosocial Support Services in Disasters[87]. There is, however, much to be done to efficiently and adequately tackle the cascading effects of climate change on mental health.

This issue brief is first in a series on unpacking the different aspects of climate change and mental health in the Indian context. In the next brief, we will dive into India's policy landscape to explore our readiness to tackle this ongoing crisis.

References

1. United Nations. (1992). *United Nations Framework Convention on Climate Change | UNFCCC*. https://unfccc.int/process-and-meetings/united-nations-framework-convention-on-climate-change
2. *Evidence—NASA Science*. (2022, June 15). https://science.nasa.gov/climate-change/evidence/
3. *GDP and CO2 emissions: Record temperatures heighten urgency to break the link | UN Trade and Development (UNCTAD)*. (2025, November 13). https://unctad.org/news/gdp-and-co2-emissions-record-temperatures-heighten-urgency-break-link
4. https://www. (2025, November 13). *AI has an environmental problem. Here's what the world can do about that.* https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about
5. *India has faced more extreme weather events and higher damages in 2024 compared to last year, says CSE and Down To Earth's annual state of extreme weather report*. (n.d.). Retrieved March 4, 2026, from https://www.cseindia.org/india-has-faced-more-extreme-weather-events-and-higher-damages-in-2024-compared-to-last-year-says-cse-and-down-to-earth-s-annual-state-of-extreme-weather-report-12462
6. *Chapter 4: Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities — Special Report on the Ocean and Cryosphere in a Changing Climate*. (n.d.). Retrieved March 12, 2026, from https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/
7. *Uttarakhand Floods*. (n.d.). Retrieved March 4, 2026, from https://cdn.downtoearth.org.in/themes/DTE/ukparralax/uk_flood.htm
8. European Commission. Joint Research Centre. & IEA. (2024). *GHG emissions of all world countries.* Publications Office. https://data.europa.eu/doi/10.2760/4002897
9. *India—Countries & Regions*. (n.d.). IEA. Retrieved March 12, 2026, from https://www.iea.org/countries/india/emissions
10. *The changing landscape of global emissions – CO2 Emissions in 2023 – Analysis*. (n.d.). IEA. Retrieved March 12, 2026, from https://www.iea.org/reports/co2-emissions-in-2023/the-changing-landscape-of-global-emissions
11. *2025 Global Report on Internal Displacement (GRID)*. (2025). Internal Displacement Monitoring Centre (IDMC). https://doi.org/10.55363/IDMC.XTGW2833
12. *MRS No. 31—Migration and Climate Change*. (n.d.). *31*. Retrieved March 5, 2026, from https://publications.iom.int/books/mrs-no-31-migration-and-climate-change
13. Romanello, M., Walawender, M., Hsu, S.-C., Moskeland, A., Palmeiro-Silva, Y., Scamman, D., Ali, Z., Ameli, N., Angelova, D., Ayeb-Karlsson, S., Basart, S., Beagley, J., Beggs, P. J., Blanco-Villafuerte, L., Cai, W., Callaghan, M., Campbell-Lendrum, D., Chambers, J. D., Chicmana-Zapata, V., … Costello, A. (2024). The 2024 report of the Lancet Countdown on health and climate change: Facing record-breaking threats from delayed action. *The Lancet*, *404*(10465), 1847–1896. https://doi.org/10.1016/S0140-6736(24)01822-1
14. *Climate change*. (n.d.). Retrieved March 5, 2026, from https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health
15. Majorities in India think global warming is affecting extreme weather. (n.d.). *Yale Program on Climate Change Communication*. Retrieved March 9, 2026, from https://climatecommunication.yale.edu/publications/majorities-in-india-think-global-warming-is-affecting-extreme-weather/
16. Banerjee, P. (2024, December 31). *94% Indian youth feels impacted by climate change: Survey*. Down To Earth. https://www.downtoearth.org.in/climate-change/94-indian-youth-feels-impacted-by-climate-change-survey
17. Boivin, M., Gousse-Lessard, A.-S., & Hamann Legris, N. (2025). Towards a unified conceptual framework of eco-anxiety: Mapping eco-anxiety through a scoping

review. *Cogent Mental Health*, *4*(1), 2490524. https://doi.org/10.1080/28324765.2025.2490524
18. Kumar, P., Kumar, N., & Sarthi, P. P. (2021). Feeling solastalgia: A study of the effects of changing climate in rural India. *Asian Journal of Social Psychology*, *24*(2), 208–220. https://doi.org/10.1111/ajsp.12473
19. Sen, S. (2025). *Ecological Grief: Climate Change and Mental Health* (SSRN Scholarly Paper No. 5694082). Social Science Research Network. https://doi.org/10.2139/ssrn.5694082
20. Cianconi, P., Betrò, S., & Janiri, L. (2020). The Impact of Climate Change on Mental Health: A Systematic Descriptive Review. *Frontiers in Psychiatry*, *11*. https://doi.org/10.3389/fpsyt.2020.00074
21. Kirby, N. V., Tetzlaff, E. J., Kidd, S. A., Brown, E. E., Bezgrebelna, M., Yoon, L., Henderson, S. B., & Kenny, G. P. (2025). Susceptibility of persons with schizophrenia to extreme heat: A critical review of physiological, behavioural, and social factors. *Science of The Total Environment*, *995*, 179965. https://doi.org/10.1016/j.scitotenv.2025.179965
22. Heinz, A., & Brandt, L. (2024). Climate change and mental health: Direct, indirect, and intersectional effects. *The Lancet Regional Health – Europe*, *43*. https://doi.org/10.1016/j.lanepe.2024.100969
23. Walinski, A., Sander, J., Gerlinger, G., Clemens, V., Meyer-Lindenberg, A., & Heinz, A. (2023). The Effects of Climate Change on Mental Health. *Deutsches Ärzteblatt International*, *120*(8), 117–124. https://doi.org/10.3238/arztebl.m2022.0403
24. Das, A., Kumar, S., Kasala, K., Nedumaran, S., Paithankar, P., Kumar, A., Jain, A., & Avinandan, V. (2025). Effects of climate change on food security and nutrition in India: A systematic review. *Current Research in Environmental Sustainability*, *9*, 100286. https://doi.org/10.1016/j.crsust.2025.100286
25. Pengpid, S., & Peltzer, K. (2023). Food insecurity and health outcomes among community-dwelling middle-aged and older adults in India. *Scientific Reports*, *13*(1), 1136. https://doi.org/10.1038/s41598-023-28397-3
26. Romis Thomas, N., Mary Mathew, L., Thomas, R., & Thampi, K. (2025). "The hidden struggle", climate-induced forced migration and its impact on mental health: Predictions from a nested cross-sectional study in India. *Social Work in Mental Health*, *23*(6), 648–663. https://doi.org/10.1080/15332985.2025.2505521
27. Maclay, K. (2017, July 31). Climate change causing suicides in India as crops fail. *Berkeley News*. https://news.berkeley.edu/2017/07/31/study-climate-change-already-causing-suicides-in-india-as-crops-fail/
28. Lawrance, E. L., Thompson, R., Newberry Le Vay, J., Page, L., & Jennings, N. (2022). The Impact of Climate Change on Mental Health and Emotional Wellbeing: A Narrative Review of Current Evidence, and its Implications. *International Review of Psychiatry*, *34*(5), 443–498. https://doi.org/10.1080/09540261.2022.2128725
29. Carleton, T. A. (2017). Crop-damaging temperatures increase suicide rates in India. *Proceedings of the National Academy of Sciences*, *114*(33), 8746–8751. https://doi.org/10.1073/pnas.1701354114
30. Habtezion, S. (2016). *Overview of linkages between gender and climate change* (p. 8) [Policy Brief]. United Nations Development Programme. https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP%20Linkages%20Gender%20and%20CC%20Policy%20Brief%201-WEB.pdf
31. Mahmood, R., Clery, P., Yang, J. C., Cao, L., & Dykxhoorn, J. (2025). The impact of climate change on mental health in vulnerable groups: A systematic review. *BMC Psychology*, *13*(1), 1208. https://doi.org/10.1186/s40359-025-03497-z
32. Rossi, M. F., Leone, R., & Moscato, U. (2025). Climate Change and Occupational Risks in Outdoor Workers: A Systematic Review of the Health Effects of Extreme Temperatures. *Atmosphere*, *16*(7), 839. https://doi.org/10.3390/atmos16070839
33. Geneva: World Health Organization and World Meteorological Organization. (2025). *Climate change and workplace heat stress: Technical report and guidance*.

34. Moda, H. M., Filho, W. L., & Minhas, A. (2019). Impacts of Climate Change on Outdoor Workers and Their Safety: Some Research Priorities. *International Journal of Environmental Research and Public Health*, *16*(18), 3458. https://doi.org/10.3390/ijerph16183458
35. *Climate change creates a 'cocktail' of serious health hazards for 70 per cent of the world's workers | International Labour Organization*. (2024, April 22). https://www.ilo.org/resource/news/climate-change-creates-%E2%80%98cocktail%E2%80%99-serious-health-hazards-70-cent-world%E2%80%99s
36. *Labouring Through the Climate Crisis*. (n.d.).
37. The impact of climate change on agriculture: What we know. (n.d.). *India Development Review*. Retrieved March 5, 2026, from https://idronline.org/article/agriculture/the-impact-of-climate-change-on-agriculture-what-we-know/
38. International Labour Office. (2024). *Ensuring safety and health at work in a changing climate*.
39. Dr. Thippeswamy S. (2025). Problems of agricultural labourers in India: A critical analysis. *EPRA International Journal of Agriculture and Rural Economic Research*, 30–36. https://doi.org/10.36713/epra20407
40. *World Bank Open Data*. (n.d.). World Bank Open Data. Retrieved March 5, 2026, from https://data.worldbank.org
41. *Accidental Deaths and Suicides in India 2023—CKAN*. (n.d.). Retrieved March 10, 2026, from https://data.opencity.in/dataset/accidental-deaths-and-suicides-in-india-2023
42. Suryawanshi, S. (2025, July 1). *767 farmers die by suicide in just three months in Maharashtra*. The New Indian Express. https://www.newindianexpress.com/nation/2025/Jul/01/767-farmers-die-by-suicide-in-just-three-months-in-maharashtra
43. Tikadar, M. K., & Kamble, R. (2023). Climate change induced farmers suicides in Vidarbha and Marathwada Regions of Maharashtra, India. *Sustainability, Agri, Food and Environmental Research-DISCONTINUED*, *12*(1). https://doi.org/10.7770/safer-V12N1-art687
44. *India's Marine Fisheries Sector Under Changing Climate India's Marine Fisheries Sector Under Changing Climate A Synthesis of BOBP Studies & Reports on Adaptation Strategies & Policy Perspectives*. (n.d.).
45. Ramírez, A., Harrod, C., Valbo-Jørgensen, J., & Funge-Smith, S. (2018). *How climate change impacts inland fisheries*.
46. *On the Front Line of Climate Change, Fisherfolk Stare Into the Abyss*. (n.d.). Pulitzer Center. Retrieved March 5, 2026, from https://pulitzercenter.org/stories/front-line-climate-change-fisherfolk-stare-abyss
47. Shankar, P. (2023, October 30). Six years on, cyclone Ockhi survivors battle lingering mental health impacts. *Mongabay-India*. https://india.mongabay.com/2023/10/six-years-on-cyclone-ockhi-survivors-battle-lingering-mental-health-impacts/
48. *How Kerala heatwaves are boiling over to construction workers' personal lives*. (2025, July 18). 101Reporters - Compelling Stories from Grassroots. https://101reporters.com/article/environment/How_Kerala_heatwaves_are_boiling_over_to_construction_workers_personal_lives
49. Habibi, P., Heydari, A., Dehghan, H., Moradi, A., & Moradi, G. (2024). Climate Change and Occupational Heat Strain Among Women Workers: A Systematic Review. *Indian Journal of Occupational and Environmental Medicine*, *28*(1), 4–17. https://doi.org/10.4103/ijoem.ijoem_320_21
50. Zhu, Y., He, C., Bell, M., Zhang, Y., Fatmi, Z., Zhang, Y., Zaid, M., Bachwenkizi, J., Liu, C., Zhou, L., Chen, R., & Kan, H. (2023). Association of Ambient Temperature With the Prevalence of Intimate Partner Violence Among Partnered Women in Low- and

Middle-Income South Asian Countries. *JAMA Psychiatry*, *80*(9), 952–961. https://doi.org/10.1001/jamapsychiatry.2023.1958
51. *The Gender Snapshot 2024—SDG Indicators*. (n.d.). Retrieved March 5, 2026, from https://unstats.un.org/sdgs/gender-snapshot/2024/
52. Dehingia, N., McDougal, L., Silverman, J. G., Reed, E., Urada, L., McAuley, J., Singh, A., & Raj, A. (2023). Climate and Gender: Association Between Droughts and Intimate Partner Violence in India. *American Journal of Epidemiology*, *193*(4), 636–645. https://doi.org/10.1093/aje/kwad222
53. Molinari, N. (2017). Intensifying Insecurities: The impact of climate change on vulnerability to human trafficking in the Indian Sundarbans. *Anti-Trafficking Review*, (8). https://doi.org/10.14197/atr.20121784
54. *The Climate Change-Human Trafficking Nexus*. (n.d.). Retrieved March 20, 2026, from https://publications.iom.int/books/climate-change-human-trafficking-nexus
55. *Green jobs for women can combat the climate crisis and boost equality*. (n.d.). World Bank Blogs. Retrieved March 5, 2026, from https://blogs.worldbank.org/en/climatechange/green-jobs-women-can-combat-climate-crisis-and-boost-equality
56. Desai, Z., & Zhang, Y. (2021). Climate Change and Women's Health: A Scoping Review. *GeoHealth*, *5*(9), e2021GH000386. https://doi.org/10.1029/2021GH000386
57. Chandra, R., Patel, J. K., Srivastava, S., Mukherjee, S., & Singh, A. (2025). Association between flood-prone geographies and incomplete ANC in India: Implications for equitable maternal care access. *Social Sciences & Humanities Open*, *11*, 101522. https://doi.org/10.1016/j.ssaho.2025.101522
58. Tandon, A. (2023, March 7). Transgender activists highlight the impacts of climate change and environmental issues on the community. *Mongabay-India*. https://india.mongabay.com/2023/03/transgender-activists-highlight-the-impacts-of-climate-change-and-environmental-issues-on-the-community/
59. *The Indigenous World 2025: India—IWGIA - International Work Group for Indigenous Affairs*. (n.d.). Retrieved March 5, 2026, from https://iwgia.org/en/india/5658-iw-2025-india.html
60. United Nations Development Programme & Oxford Poverty and Human Development Initiative. (2021). *Global Multidimensional Poverty Index 2021: Unmasking disparities by ethnicity, caste and gender.* https://ophi.org.uk/sites/default/files/2024-02/GMPI_2021_Unmasking.pdf
61. WCMC. (n.d.). *Championing Indigenous Peoples' stewardship of biodiversity*. UNEP-WCMC. Retrieved March 5, 2026, from http://production-wordpress.unep-wcmc.org/championing-indigenous-peoples-stewardship-of-biodiversity/
62. Arun Sapre, A., & Gori, S. (2025). Development-Induced Displacement in India and the Tribal Rights: A Quest for Social Justice. *Journal of Asian and African Studies*, *60*(1), 265–275. https://doi.org/10.1177/00219096231168064
63. Kukreti, I. (2020, October 5). *'Protect & conserve model' displaced 13,450 families from 26 protected areas in 2 decades*. Down To Earth. https://www.downtoearth.org.in/wildlife-biodiversity/-protect-conserve-model-displaced-13-450-families-from-26-protected-areas-in-2-decades-73656
64. Mukherjee, M., & Awasthi, P. (2022). Involuntary Cultural Change and Mental Health Status Among Indigenous Groups: A Synthesis of Existing Literature. *Community Mental Health Journal*, *58*(2), 222–230. https://doi.org/10.1007/s10597-021-00813-w
65. Chari, M. (2022, June 1). *Battered by climate change, Central India's forest products are disappearing*. Scroll.In. https://scroll.in/article/1025124/battered-by-climate-change-central-indias-forest-products-are-disappearing
66. Ahmed, S., Iqbal, Z., & Antahal, P. C. (2023). Impact of climate change on nomadic herders' livelihoods: Evidence from Bakarwal community in the Western Himalayas in India. *Environmental Development*, *48*, 100930. https://doi.org/10.1016/j.envdev.2023.100930

67. *Welfare of particularly vulnerable Tribal groups*. (n.d.). Retrieved March 12, 2026, from https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1577166&reg=3&lang=2
68. (PDF) IMPACT OF CLIMATE CHANGE ON SUSTAINABLE LIVELIHOOD AMONG PVTGS OF WEST BENGAL: A CASE STUDY OF LODHA AND BIRHOR. (2025). *ResearchGate*. https://doi.org/10.69953/nurs.v10i1.362
69. Soren, D., Rana, N. K., & Sharma, L. (n.d.). *A Geographical Appraisal of Particularly Vulnerable Tribal Groups (PVTGs) of Jharkhand and their Susceptibility to Environmental Hazards*.
70. Arora, A. (2021, August 19). The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index. *UNICEF DATA*. https://data.unicef.org/resources/childrens-climate-risk-index-report/
71. Sheffield, P. E., & Landrigan, P. J. (2011). Global Climate Change and Children's Health: Threats and Strategies for Prevention. *Environmental Health Perspectives*, *119*(3), 291–298. https://doi.org/10.1289/ehp.1002233
72. Chen, K., de Schrijver, E., Sivaraj, S., Sera, F., Scovronick, N., Jiang, L., Roye, D., Lavigne, E., Kyselý, J., Urban, A., Schneider, A., Huber, V., Madureira, J., Mistry, M. N., Cvijanovic, I., Gasparrini, A., & Vicedo-Cabrera, A. M. (2024). Impact of population aging on future temperature-related mortality at different global warming levels. *Nature Communications*, *15*(1), 1796. https://doi.org/10.1038/s41467-024-45901-z
73. *Chapter 7: Health, Wellbeing and the Changing Structure of Communities*. (n.d.). Retrieved March 5, 2026, from https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-7/
74. *Heat and health*. (n.d.). Retrieved March 5, 2026, from https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health
75. Mehta, M. M., Johnson, A. E., Ratnakaran, B., Seritan, I., & Seritan, A. L. (2024). Climate Change and Aging: Implications for Psychiatric Care. *Current Psychiatry Reports*, *26*(10), 499–513. https://doi.org/10.1007/s11920-024-01525-0
76. Bishwakarma, K. L., & Roongtawanreongsri, S. (2025). Emerging Themes and Qualitative Evidence of the Role of the Caste System in Climate Change Vulnerability in South Asia. *Human Ecology*, *52*, 1251–1267. https://doi.org/10.1007/s10745-024-00556-8
77. Ritu Bharadwaj, N. R. (n.d.). *Social protection and informal job market reform for tackling climate migration nexus*. IIED. Retrieved March 5, 2026, from https://www.iied.org/21121iied
78. Thapa, R., van Teijlingen, E., Regmi, P. R., & Heaslip, V. (2021). Caste Exclusion and Health Discrimination in South Asia: A Systematic Review. *Asia-Pacific Journal of Public Health*, *33*(8), 828–838. https://doi.org/10.1177/10105395211014648
79. *'Dalits Are Not Afraid of Climate Change, They Have Been Leading a Disastrous Life Forever'*. (n.d.). The Wire. Retrieved March 5, 2026, from https://thewire.in/environment/dalits-are-not-afraid-of-climate-change-they-have-been-leading-a-disastrous-life-forever
80. Uvais, V. M., N. A. (2025, July 24). Climate Change and Mental Health: A Scoping Review of Indian Studies. *Psychiatrist.Com*. https://www.psychiatrist.com/pcc/climate-change-mental-health-scoping-review-indian-studies/
81. United Nations. (2006). *Convention on the rights of persons with disabilities and optional protocol (A/RES/61/106).* https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf
82. Ministry of Health & Family Welfare, Government of India. (n.d.). *National action plan on climate change and mental health* [Action Plan]. National Centre for Disease Control. Retrieved https://ncdc.mohfw.gov.in/wp-content/uploads/2024/07/2-National-Action-Plan-on-climate-change-and-Mental-Health.pdf

83. *India: After the Deluge: IV. Addressing the needs of vulnerable populations*. (n.d.). Retrieved March 5, 2026, from https://www.hrw.org/reports/2005/india0505/4.htm#_ftnref76
84. Calvin, K., Dasgupta, D., Krinner, G., Mukherji, A., Thorne, P. W., Trisos, C., Romero, J., Aldunce, P., Barrett, K., Blanco, G., Cheung, W. W. L., Connors, S., Denton, F., Diongue-Niang, A., Dodman, D., Garschagen, M., Geden, O., Hayward, B., Jones, C., … Ha, M. (with Lee, H.). (2023). *IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland.* (P. Arias, M. Bustamante, I. Elgizouli, G. Flato, M. Howden, C. Méndez-Vallejo, J. J. Pereira, R. Pichs-Madruga, S. K. Rose, Y. Saheb, R. Sánchez Rodríguez, D. Ürge-Vorsatz, C. Xiao, N. Yassaa, J. Romero, J. Kim, E. F. Haites, Y. Jung, R. Stavins, … C. Péan, Eds.; First). Intergovernmental Panel on Climate Change (IPCC). https://doi.org/10.59327/IPCC/AR6-9789291691647
85. Mental Healthcare Act, 2017, Act No. 10 of 2017 Acts of Parliament of India (2017). https://www.indiacode.nic.in/bitstream/123456789/2249/1/A2017-10.pdf
86. National Centre for Disease Control. (2018). *National action plan for climate change and human health.* Ministry of Health & Family Welfare, Government of India. https://ncdc.mohfw.gov.in/wp-content/uploads/2024/04/27505481411548674558.pdf
87. National Disaster Management Authority, R. (2023). *National Disaster Management Guidelines Mental Health and Psychosocial Support Services in Disasters.* https://ndma.gov.in/sites/default/files/PDF/Guidelines/Guidelines_Mental_Health_Psychosocial_Support_Dec23.pdf