

THE COST OF CLIMATE CHANGE

Young Voices in a Warming World

The effect of climate change on
the mental health of young adults





Abbreviations

ADHD	– Attention Deficit Hyperactivity Disorder
ANM	– Auxiliary Nurse Midwife
APA	– American Psychological Association
ASHA	– Accredited Social Health Activist
BMJ	– British Medical Journal
CBSE	– Central Board of Secondary Education
CHOs	– Community Health Officers
CO₂	– Carbon Dioxide
CWCs	– Child Welfare Committees
EPA	– Environmental Protection Agency
GDP	– Gross Domestic Product
IHBAS	– Institute of Human Behaviour and Allied Sciences
ILO	– International Labour Organization
IPCC	– Intergovernmental Panel on Climate Change
MD	– Doctor of Medicine
NASA	– National Aeronautics and Space Administration
NCPCR	– National Commission for Protection of Child Rights
NHS	– National Health Service
NIMHANS	– National Institute of Mental Health and Neurosciences
NMHP	– National Mental Health Programme
NOAA	– National Oceanic and Atmospheric Administration
PTSD	– Post-Traumatic Stress Disorder
SDG	– Sustainable Development Goal
Tele-MANAS	– Tele Mental Health Assistance and Networking Across States
UNDP	– United Nations Development Programme
UNEP	– United Nations Environment Programme
UNICEF	– United Nations Children's Fund
WHO	– World Health Organization

Executive Summary

This study by Primus Partners on "The Cost of Climate Change: Young Voices in a Warming World" attempts to highlight the effects of climate change on the mental health of young adults and examines the emotional and psychological impacts of climate change on individuals aged 15-24, both in India and globally. This study draws insights from psychiatrists and clinical psychologists and responses received from this age group. The study assesses emotional responses, regional variations, and coping mechanisms related to climate change. Findings reveal potentially severe mental health challenges in this age group, resulting in an **estimated annual economic loss of USD 13.7 billion, or 0.35% of the country's GDP**. These mental health-related issues contribute to a broader 6% GDP loss linked to health complications.

The report highlights high awareness of climate change among youth with 56% of respondents aged 15-18 and 60% of those aged 19-24 acknowledging its impact, with social media as the primary information source. Mental health impacts, such as **anxiety, sleep disorders, and behavioural changes, are significant, however access to mental health services remains limited** for both school (41%) and college students (33%). The youth call for more awareness generation, proactive government action, and increased funding and resources to address these issues.

Recommendations include **developing national policies that integrate climate-related mental health strategies, improving mental health infrastructure, and providing specialized training to school counsellors**. The study also recommends launching media campaigns, incorporating mental health training into healthcare programs, and engaging community leaders to reduce stigma around seeking care. The research highlights the urgent need of government involvement for policy intervention.

The study encourages global collaboration, advocating for **partnerships with various National and International organizations to ensure action towards supporting climate-related mental health initiatives**. To measure progress, the study recommends key performance indicators including:

- 100% trained school counsellors in CBSE schools
- Raising the mental health budget to 5% of the total health budget
- Expanding psychiatry residency positions
- Reaching over 50 million people through awareness campaigns

This research underscores that **climate change is not only an environmental and economic challenge but also a critical mental health issue**. Timely interventions are essential to prevent long-term societal and economic consequences. By adopting these strategies, stakeholders can help build a resilient generation capable of addressing the complex challenges of climate change.

07

01 |

Introduction

Global & Regional Effects
of Climate Change

02 |

10

11

03 |

Climate Change & its
Effect on Mental Health

Young Population and
Climate Change

04 |

13

15

05 |

What does the Youth
think about it ?

Expert Opinions

06 |

18

24

07 |

Findings

Financial Impact of
Climate Change

08 |

28

29

09 |

Recommendations

Annexure

10 |

33

Introduction

Climate change and its extant : _____

1

“

Climate change is no longer a distant threat; it is a pressing reality that is reshaping the world around us. The past decade (2011-2020) was the warmest on record, with global temperatures rising by approximately 1.1°C above pre-industrial levels (IPCC, 2021). The increasing frequency of extreme weather events—heatwaves, wildfires, hurricanes, and floods—has affected over 3.6 billion people globally, leading to displacement, resource scarcity, and heightened socio-economic stress (UNEP, 2022). These environmental disruptions have far-reaching consequences, not just on physical health but also on mental well-being.

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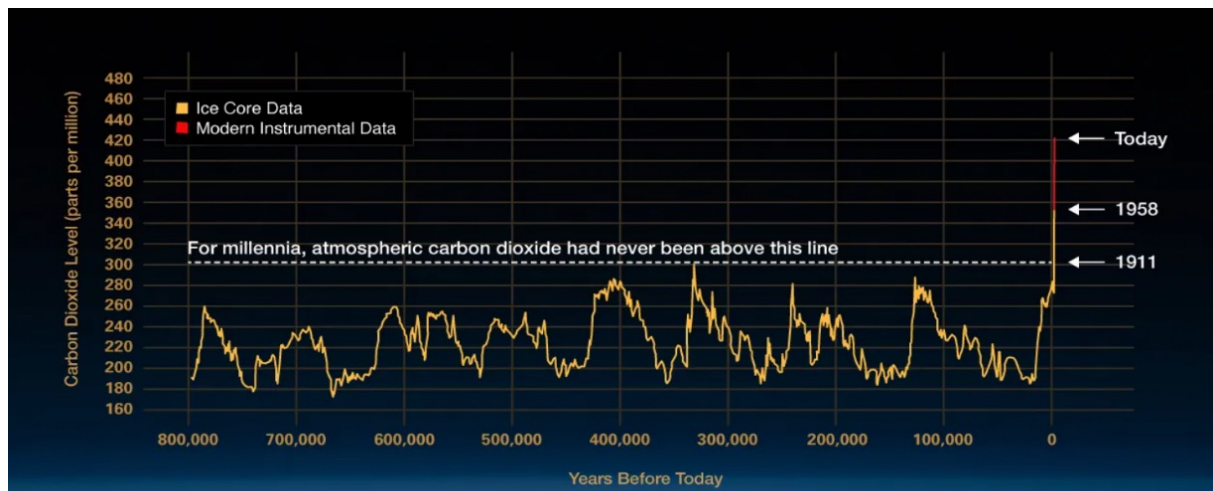
Prof.(Dr.) Sanjay Zodpey

President, Public Health
Foundation of India

Climate change is a term that resonates for multiple reasons. It is one of the most pressing concerns of the present time, impacting the world to varying extents. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale.¹ Climate change refers to long-term shifts in temperatures and weather patterns. The Intergovernmental Panel on Climate Change (IPCC) characterizes climate change as a change in the state of the climate, identifiable by changes in the mean and/or variability of its properties, that persists for an extended duration, typically spanning decades or longer.² Global warming of **1.1°C** above pre-industrial levels has led to an increase in the frequency and intensity of extreme weather events, which have caused dangerous impacts on nature and people worldwide.

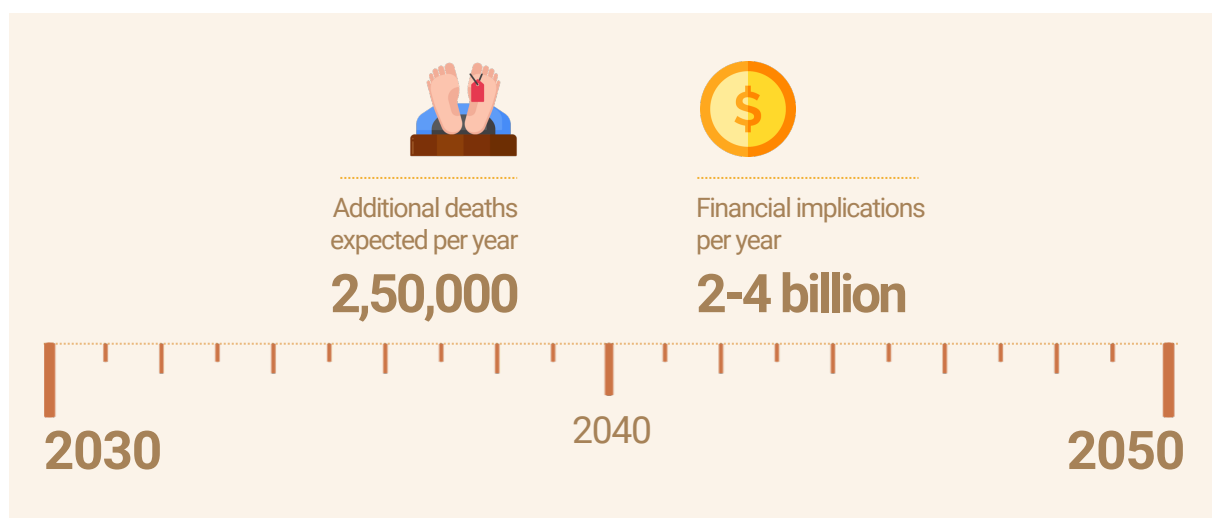
The effects of climate change are manifested through more severe heatwaves, increased rainfall, and other extreme weather events such as floods, landslides and droughts, all of which heighten risks to human health and ecosystems. As per the NASA estimates, the level of atmospheric CO₂ has never been this high for over a millennium which is directly linked to climate changes.^{3,4} Climate-driven food and water insecurity is expected to rise with increased warming. When these risks combine with other adverse events, such as pandemics or conflicts, they become even more difficult to manage. Presently around **3.3 to 3.6 billion people** reside in situations that make them highly vulnerable to climate change.⁵





Climate change is the single biggest health threat being faced by humanity in current times and is already affecting health and wellbeing. Every year, environmental factors take the lives of around **13 million people**. The World Health Organization (WHO) estimates that between 2030 and 2050, climate change is expected to cause approximately 2,50,000 additional deaths per year, resulting from malnutrition, malaria, diarrhoea and heat stress.

These deaths will further have financial implications which are estimated to be between USD 2-4 billion/year by 2030.^{6,7} Between 2010 and 2020, highly vulnerable regions, home to approximately 3.3–3.6 billion people, experienced 15x higher human mortality rates from floods, droughts and storms compared to regions with very low vulnerability.



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Among the most vulnerable to these challenges are young adults, whose formative years are increasingly shaped by uncertainty, ecological anxiety, and psychological distress associated with climate-related adversities. According to a 2021 Lancet study covering 10,000 young people across 10 countries, 59% reported feeling very or extremely worried about climate change, while 45% said it negatively affects their daily lives.

Prof.(Dr.) Sanjay Zodpey

President, Public Health
Foundation of India

This study is a much needed attempt which aims to understand the intricate relationship between climate change and mental health, specifically among young populations and attempt at identifying the impact both on health and economy, if not addressed in a timely and adequate manner. The growing prevalence of eco-anxiety, climate grief, and stress-related disorders underscores the urgent need for a holistic, evidence-based approach to addressing this emerging crisis.

As we stand at the intersection of climate action and mental health advocacy, it is imperative that we recognize and respond to the silent crisis unfolding among youth. This document is a step toward fostering greater awareness, driving meaningful dialogue, and inspiring collaborative solutions to safeguard the mental well-being of future generations.

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Global & Regional effects of climate change

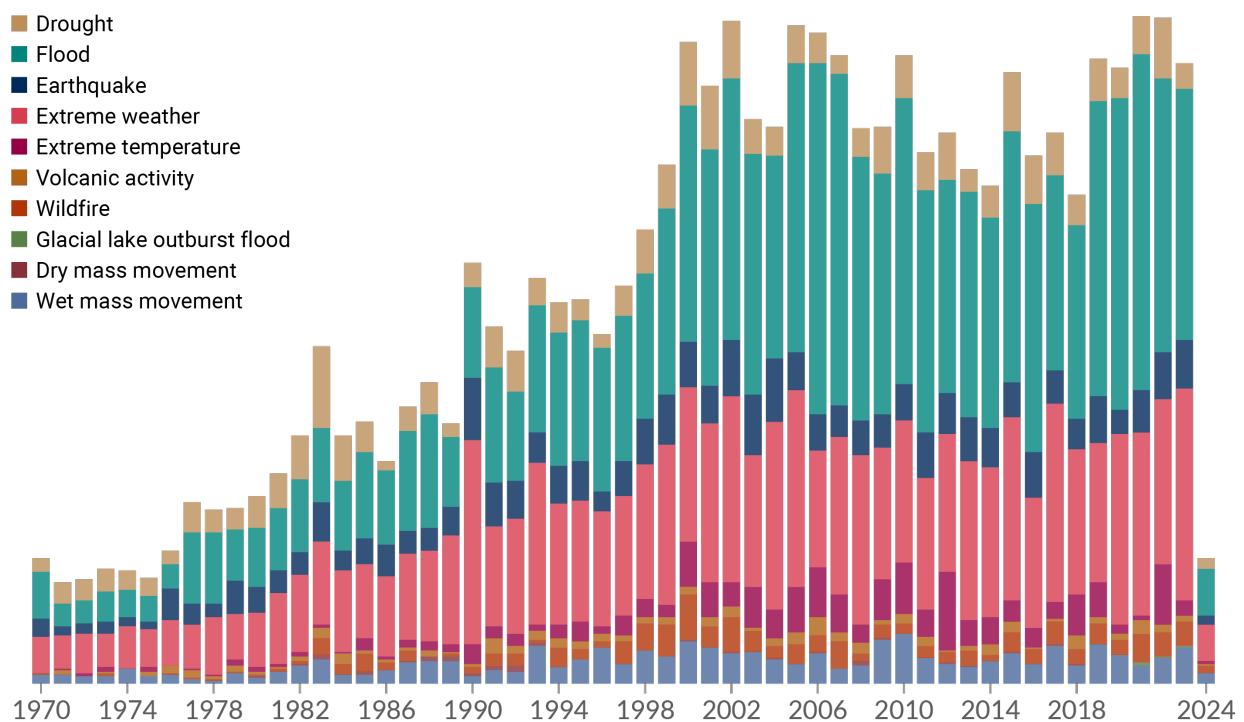
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The effects of climate change have been observed globally with different nations facing different kind of problems. There has also been a huge impact on the ecosystem leading to loss of biodiversity with many species being on the brink of extinction.⁸ The melting icebergs and rising sea levels not only threaten the coastal areas but also have a large impact on the global climate conditions.⁹ Warmer temperatures change weather patterns over time, altering nature's regular balance.

This has led to an increase in heatwaves, posing significant threats to humans and all other forms of life on earth. Extreme weather events such as floods, droughts, hurricanes, earthquakes and landslides are also on the rise.¹⁰ Broadly these effects can be classified into changes in weather, environment, agriculture, animals and humans.¹¹

These changes are strongly co-related with each other and need a sincere, well-coordinated effort at a global level. SDG 13 specifically talks about 'taking urgent action to combat climate change and its impacts'. If not mitigated, these effects can seriously hinder the sustainable development and poverty eradication efforts, with the vulnerable communities in the center.

Increasing incidences of extreme weather conditions:



Data source: EM-DAT, CRED / UCLouvain (2024)

Note: Data includes disasters recorded up to April 2024.

OurWorldinData.org/natural-disasters | CC BY

Climate change & its effect on mental health

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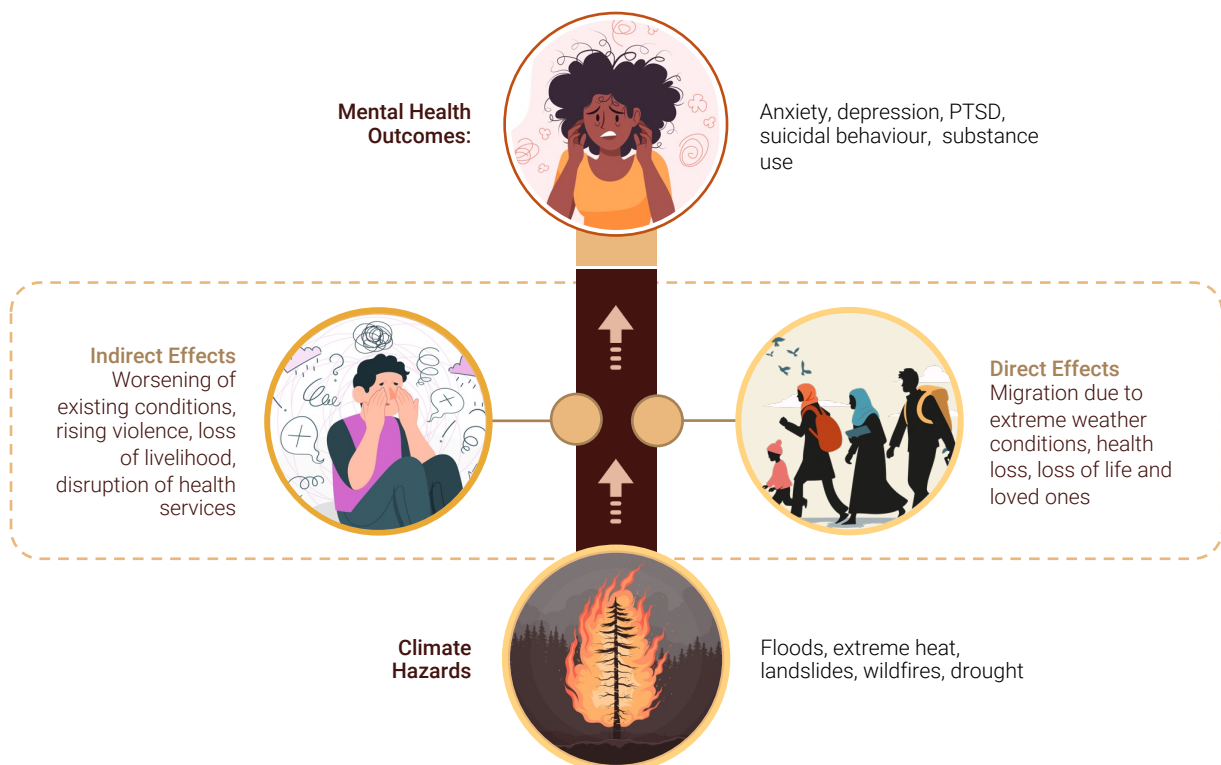
Climate change is increasingly recognized not only as an environmental crisis but also as a significant threat to mental health, particularly among young adults aged 15 to 24. The psychological impacts—ranging from anxiety and depression to feelings of helplessness—are profound and demand urgent attention.

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Dr. Naveen Kumar

Head of Community Psychiatry,
National Institute of Mental Health
and Neurosciences (NIMHANS)



Direct implications might also be due to chronic exposure to events like heat and drought. In addition to the direct effects of environmental pollution and natural disasters or extreme weather events, climate change is also associated with indirect and systemic effects on health. This includes food insecurity and climate related migrations all of which have been known to have a mild to severe effects on the health and wellbeing of individuals, specifically the mental health.¹⁹

The effects of climate change on human health are no longer a mystery. As mentioned previously, WHO estimates that climate change might be responsible for **250,000 additional deaths per year during 2030–2050**, which can be attributed to extreme weather-induced mortality and morbidity and the global expansion of vector-borne diseases.¹² Climate change can have both direct as well as indirect impacts on mental health. The direct implications may be due to acute exposure to disasters including floods, storms, fires, earthquakes etc.



A 2021 scoping review revealed several key findings including a reduction in positive emotions such as happiness, an increase in negative emotions like anger and stress, heightened fatigue, increased hospital admissions and psychological distress during heat waves, a rise in major depressive disorder incidence, a greater prevalence of mental health issues, and a surge in aggression, domestic violence, and mental and behavioural disorders, including self-harm.¹⁴ For example, extreme heat can cause heat exhaustion, particularly in vulnerable populations, leading to mental health issues.

Additionally, climate change can deteriorate physical environments, which subsequently harms social environments, affecting the overall wellbeing of communities. This impact is expected to be most severe in vulnerable populations and regions, especially in low-income countries.¹⁵ Many people exposed to weather-related or climate-related natural disasters experience stress and severe mental health consequences. Some natural disasters are likely to become more frequent due to climate change.¹⁶

These extreme events may force populations to migrate, causing stress. It can also cause an increase in medical ailments, which might further contribute to psychological discomfort. The mental health repercussions of climate change are not evenly distributed, with certain groups disproportionately impacted based on factors like socioeconomic status, gender, and age. Nonetheless, it is evident that climate change exacerbates many social determinants that are already contributing to significant global mental health challenges.¹⁷

It is extremely crucial to identify the vulnerable population groups at the highest risk due to these climate changes and identify the immediate and long-term steps that can be taken to build resilience in these populations.

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In this context, the study conducted by Primus Partners on the effects of climate change on the mental health of young adults is both timely and essential. This research offers valuable insights that are highly relevant for academia, informing future studies and enriching the educational discourse on this critical issue. For government bodies, the findings will provide a robust evidence base to inform policy development and implementation strategies, ensuring that mental health considerations are integrated into climate action plans.

Dr. Naveen Kumar

Head of Community
Psychiatry,
National Institute of
Mental Health and
Neurosciences
(NIMHANS)

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Young population and climate change

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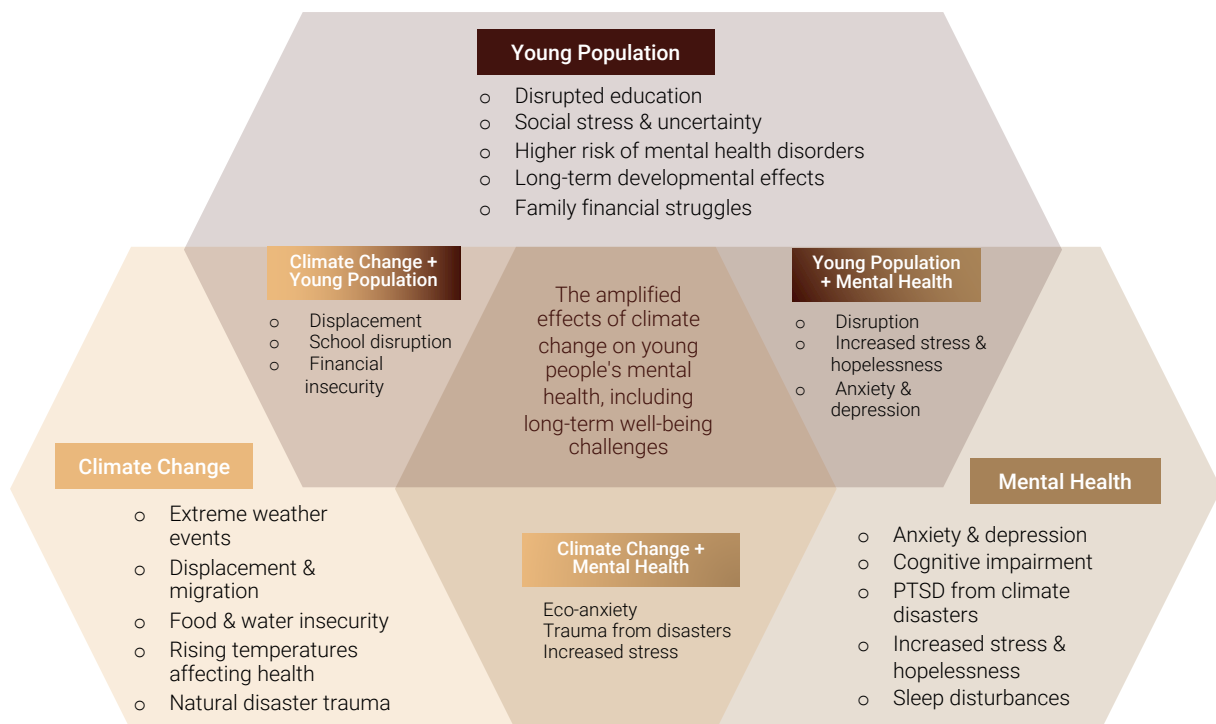
In our practice we have witnessed that young adults, aged 15 to 24, are increasingly experiencing psychological distress due to climate change, including anxiety, depression, and eco-anxiety.

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Dr. Neerja Aggarwal

Co-Founder & CEO, Emoneeds



There is enough evidence that suggests the amplified effects of climate change on adolescents and young population. In a **2020 Royal College of Psychiatrists study of child and adolescent psychiatrists in the UK's National Health Service (NHS)**, around **60%** reported seeing a patient who was 'distressed about environmental and ecological issues' in the previous year.¹⁸

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There is marked increase in anxiety and depression in this age group owing to the climate induced uncertainty about future. The growing burden of climate-induced mental health challenges requires immediate intervention from mental health practitioners and healthcare providers.

The findings underscore the urgency of integrating mental health support into broader climate adaptation strategies. By leveraging the insights from this report, mental health organizations can enhance their outreach, improve access to care, and build resilience among young individuals grappling with climate-related psychological distress.

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Dr. Neerja Aggarwal

Co-Founder & CEO,
Emoneeds

Globally, nearly **15% of young people between ages 10-19 experience a mental health disorder**, accounting for 13% of the global burden of disease in this age group.¹⁹ As global warming continues, children growing up in South and Southeast Asia will experience greater losses in coastal settlements and infrastructure due to inevitable sea-level rise.²⁰ By 2030, depression is expected to be the second- and third-leading contributor to the illness burden in low- and middle-income nations, respectively.²¹ **The young population is particularly vulnerable, as they are not only likely to experience the impacts of climate change for the longest duration, but their awareness and contemplation of these issues are also influencing their experiences and learning processes.** They can be significantly impacted by disrupted schooling, family stress, and other indirect effects of climate change, such as displacement, financial distress, and food insecurity.²²

According to a report by the American Psychological Association, climate change presents a significant risk to children and youth, beginning before birth and potentially disrupting the normal development of physiological systems, cognitive abilities, and emotional skills in ways that may be irreversible²³. According to a recent Lancet study, many children and young people worldwide experience climate anxiety and frustration with government actions, or lack thereof, regarding the climate crisis. These feelings significantly affect their daily lives, and the perception of governmental failure in addressing climate issues is further linked to heightened distress.²⁴ Research shows that the effect of extreme weather events resulting from climate change can interrupt normal foetal development and lead to a greater risk of anxiety or depressive disorder, ADHD, educational deficits, and lower levels of self-control, as well as psychiatric disorders later in life. The list of possible climate change-related mental health struggles expands as children get older, according to the report. Certain populations of children are even more vulnerable due to poverty, racism, gender, disability and other factors.²⁵

One of the important points to note is that young population around the globe is affected by climate change regardless of the type of geography or the economic

status of the country as well as the individual. A holistic response is required to tackle the issue which would require inter-sectoral coordination within as well as across the geographies. A 2018 study by Laurent et al found reduced cognitive function in young, healthy students attending university post heat waves²⁷. There is substantial evidence indicating that climate change has a profound impact on youth, manifesting in various adverse health outcomes.

These include reduced physical activity levels, leading to increased rates of obesity and decreased cardiometabolic health²⁸. Additionally, climate change can impair social relationships and decision-making abilities among young people²⁹. The psychological effects are also significant, with increased incidences of depression and higher suicide rates being reported.³⁰ These impacts underscore the urgent need for comprehensive strategies to mitigate climate change and support the well-being of the younger population.



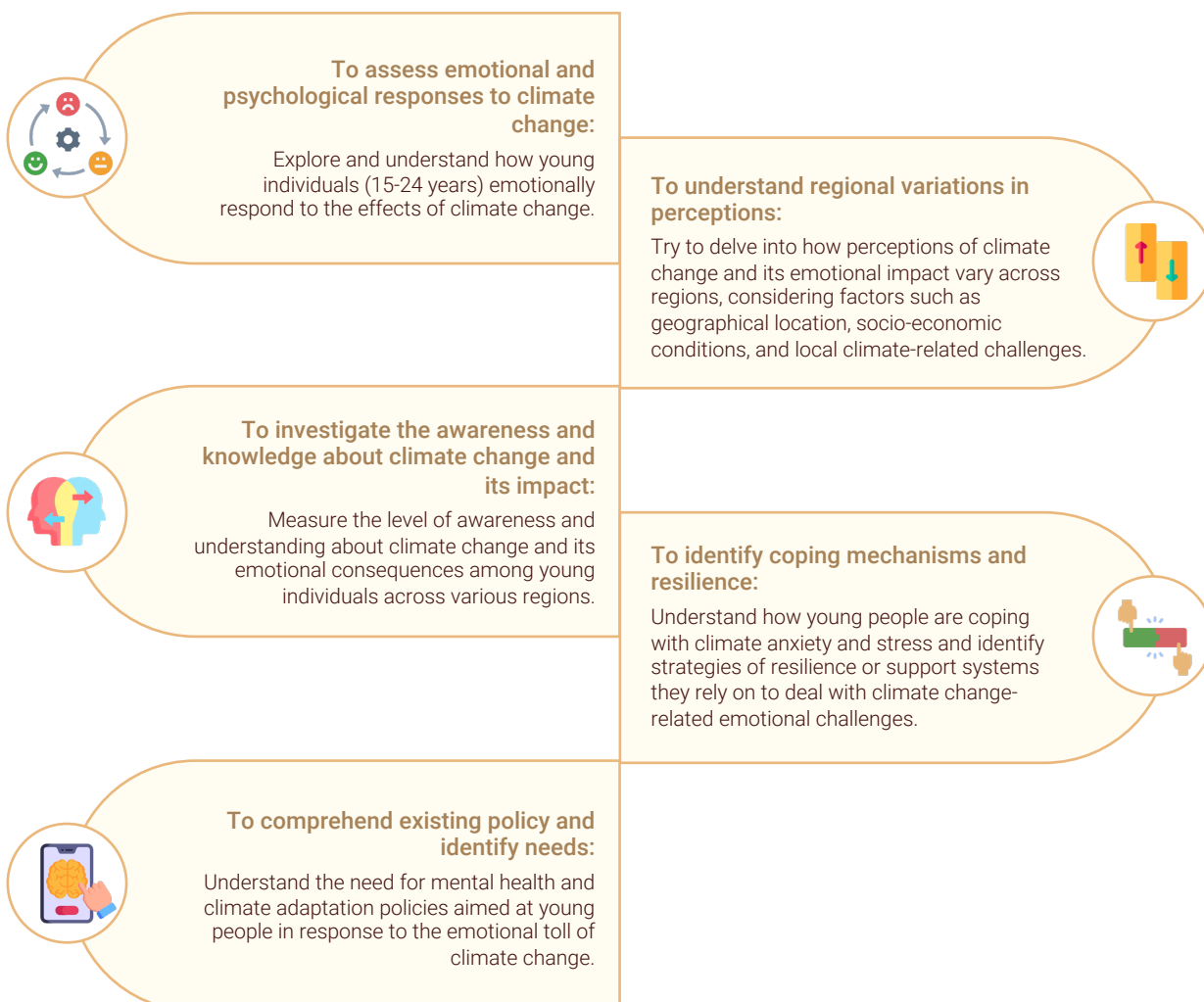
What does the youth think about it ?

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To fathom the extent of the effect of climatic changes on the young minds, Primus Partners has embarked on this research which has been conducted not only across India but extended to respondents across the globe.

5.1 Objective of the Research

The primary objective of this research is to understand the extent of the emotional and psychological impact of climate change on the younger population. To achieve this, research was conducted across various respondents in the age group of 15-24 years. The specific objectives of the study include:



5.2 Respondents

The survey reached out to the following categories of respondents:

Youth & Adolescents (Age 15-24 years)

The study used both quantitative and qualitative data. For quantitative data, the **Youth & Adolescents (Age 15-24 years)** were considered as respondents for the study on climate change and its effects on the mental health of youth is crucial for the following reasons:



Direct Impact and Vulnerability

This category was further divided into 2 groups. The school going age group of 15-18 years and the older 19-24 years category. Youth, particularly those in the age group of 15-24 years, are at a critical stage of emotional and psychological development. This age group is more likely to experience significant emotional distress due to climate change, as they are directly exposed to its effects and may feel uncertain about their future in a warming world. Their emotional responses, including anxiety, eco-grief, or fear about the future, need to be thoroughly understood.



Transition into Adulthood

Adolescents and young adults are transitioning into adulthood, and the mental health issues they face during this period can have long-term implications on their future. Understanding how climate change is shaping their mental well-being is crucial to addressing the broader societal impact of climate change, both now and in the years to come.

In the process of this survey, expert opinion was sought from psychiatrists and clinical psychologists which comprises our qualitative data set to understand their perspective of how climatic changes is affecting mental health of adolescents and young adults and the key mental issues observed.

5.3 Geographies



This study examines the effects of **climate change on mental health** across diverse geographical regions and had respondents for the quantitative analysis from across **India, Southeast Asia, Japan, Ireland, and the United States**. The research aims to identify patterns of psychological distress, anxiety, depression, and other neuropsychiatric conditions influenced by environmental changes and extreme weather events.


5.4 Analysis tools

To analyse responses from participants, the study employed a mixed-method approach, utilizing:


- Survey Questionnaires & Interviews to capture self-reported experiences and mental health outcomes.
- Epidemiological Modeling to assess climate exposure and its correlation with mental health disorders.
- Qualitative Thematic Analysis of interviews to understand community-level impacts.


By integrating these methodologies, the study provides comprehensive, cross-cultural insights into the relationship between climate change and mental health, offering evidence for targeted policy interventions and global mental health strategies.


Responses from the youth _____


1 |  Realising that environmental changes are an important stressor would also help in addressing the problem. Having group discussions might help in preventing these issues as well as help to surface some challenges faced by individuals. ”

2 |  I would engage in sustainable habits and urge others to follow suit, promoting a sense of empowerment and shared responsibility. ”


3 |  Educate ourselves and others about the psychological impacts of climate change, such as eco-anxiety or climate grief. ”

4 |  Understand the impact of climate change on the future and what it will look like. ”

5 |  To address mental health issues arising from climate change, I and my peers can raise awareness, promote community engagement, encourage personal action, and advocate for policy changes. ”

6 |  To have an open discussion about it and consider this problem to be a serious one. Due to increasing climate change the mode of education or work is shifting from offline to online mode which is sure to cause a mental burden. This seems small but if it keeps on increasing the coming generation would go through a lot of emotional stress. ”


7 |  More open discussions around the topic , executionable steps to combat climate change even if it's at a micro level. ”

8 |  We can talk to our closed ones and should stop isolating ourselves during difficult times. ”

9 |  Promote open discussions in schools, workplaces, and communities to destigmatize mental health issues related to environmental concerns. ”

10 |  To address mental health issues stemming from climate change, we must foster community resilience and support systems. Encouraging open dialogue about climate anxiety can help individuals feel less isolated. Additionally, promoting self-care practices, such as spending time in nature and engaging in local sustainability efforts, empowers us to cope while advocating for a healthier planet. ”

11 |  Promoting awareness about mental health issues in relation with climate change, strengthening mental health facilities, educating people about taking precautions during certain environmental hazards, drastic climactic variations, peer and family support are essential. ”

12 |  Encourage more awareness, since this was not something that was brought into light before within my school environment, the impact makes sense but it's shocking how it could affect mental health. ”

Expert opinions

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**Prof.(Dr.) Rajinder
Dhamija**

Director, Institute of Human
Behaviour and Allied Sciences
(IHBAS)

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Climate change is not just an environmental or economic issue—it is increasingly becoming a public health emergency, with far-reaching effects on mental and neurological health. While the physical consequences of climate change, such as extreme weather events, heatstress, and pollution, are well-documented, the psychological and cognitive impacts remain an area that requires urgent attention. Young people are at heightened risk of mental health challenges, as they grapple with eco-anxiety, climate-related distress, and a growing sense of uncertainty regarding the future.

Emerging evidence suggests that climate change does not just affect mental well-being in terms of stress and anxiety but also has direct implications for brain health. Rising air pollution levels, heat stress, and environmental toxins have been linked to neuroinflammation, cognitive decline, and an increased risk of neurological disorders. The growing burden of climate-related stressors can contribute to the exacerbation of psychiatric conditions such as depression, anxiety, and post-traumatic stress disorder (PTSD), particularly among vulnerable populations, including young adults.

I congratulate Primus Partners for conducting this timely and critical study on the Effects of Climate Change on the Mental Health of Young Adults. This research sheds light on an underexplored yet vital intersection between climate change and mental health. By providing a structured and evidence-based understanding of these challenges, this study serves as a crucial resource for healthcare professionals, policymakers, and researchers working to mitigate the mental health crisis driven by climate change.

I strongly believe that this report will open new avenues for research, fostering interdisciplinary collaborations that bridge the gap between climate science, mental health, and brain health research. It is imperative that we integrate mental health considerations into climate action frameworks, develop targeted interventions for affected populations, and advocate for policy-level changes that prioritize mental health in climate adaptation strategies.

I look forward to see this report inspire further research, collaboration, and proactive measures to safeguard the mental well-being of young generations and strengthen the resilience of communities in the face of a rapidly changing climate.

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Dr. Dinesh Arora (IAS)

Principal Health Specialist, Human and Social Development Sector office, ADB

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Climate change stands as one of the most pressing challenges of our time—a profound public health crisis with far-reaching impacts on mental well-being. While its physical consequences, such as heat stress and respiratory illnesses, are well recognized, the mental health implications—particularly for young people—are gaining urgent attention. The increasing frequency and intensity of climate-related disasters, forced migrations, and anxiety about environmental degradation are contributing to a spectrum of mental health issues. These effects are especially pronounced among adolescents and youth—particularly girls and young women—who are navigating their formative years amid a rapidly changing climate, often while facing layered vulnerabilities.

At the Asian Development Bank (ADB), we recognize health as a fundamental development issue—integral to achieving resilient, inclusive, and sustainable societies. Addressing the mental health impacts of climate change is central to this vision. Our initiatives aim to strengthen the capacity of health systems to withstand climate-induced stresses and to integrate climate considerations into health policy and infrastructure planning. We are committed to ensuring that these systems are not only responsive but also equitable—acknowledging that gender norms, inequalities, and structural barriers disproportionately affect how different groups experience and cope with climate-induced psychological distress.

Recognizing mental health as a critical yet often overlooked dimension of climate resilience, ADB supports governments and partners in developing integrated approaches that are sensitive to age, gender, and other intersecting identities. Our collaboration with the Ministry of Health and Family Welfare through the Climate and Health Solutions India Conclave (CHI) exemplifies this commitment. The Conclave brought together diverse stakeholders to address the dual challenges of climate change and public health, with dedicated focus on emerging mental health burdens—particularly among marginalized and underserved populations, including girls, young women, and gender-diverse youth.

This study on the effects of climate change on the mental health of young adults is both timely and essential. It presents a compelling evidence base for multisectoral action—highlighting the need for responsive policies, community-based care models, and targeted interventions that prioritize equity and inclusion. For governments, development partners, and private actors, these insights are valuable to embed mental health into climate resilience strategies, while addressing the unique needs of those most at risk.

- First, formally recognize mental health as integral to climate resilience and development, with a strong gender and equity lens.
- Second, strengthen health systems to deliver inclusive, accessible, and gender-responsive mental health services.
- Third, invest in research, innovation, and partnerships that generate disaggregated data and drive scalable, context-specific solutions for all genders.

By amplifying the voices of young people—especially those who are often left unheard—and supporting their mental well-being, we can co-create a future where mental health is not a peripheral concern but a central pillar of climate action. ADB remains committed to working with stakeholders across the region to advance this agenda and ensure a healthier, more just, and more resilient future for all.

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Dr. Naveen Kumar

Head of Community
Psychiatry, NIMHANS,
Bangalore

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The mental health impact of climate change on children and young adults is profoundly significant. According to the research, children face increased risks of conditions like PTSD, anxiety, depression, and eco-anxiety due to the disruption caused by climate-related disasters such as floods, droughts, and extreme weather events. Their vulnerability stems from:

- **Biological factors:** Their developing brains are highly sensitive to external stressors.
- **Psychological factors:** Limited coping mechanisms and understanding of complex climate issues lead to heightened anxiety and helplessness.
- **Social factors:** Disruptions in family and community life, often worsened by displacement due to climate disasters, erode essential support systems.
- **Developmental Impact:** Early exposure to environmental stressors (e.g., extreme heat, air pollution) can impair cognitive development, emotional regulation, and socio-emotional growth

Given these vulnerabilities, climate change should be a focal area from a policy perspective. Policies need to integrate mental health support with climate resilience strategies, particularly for children and adolescents. This could involve integrating climate-change education in school curricula, developing targeted psychosocial support services, and ensuring that disaster response mechanisms are child-sensitive

If no action is taken, the mental health consequences of climate change on children and young adults could be profound and long-lasting and manifested in the following ways:

- **Eco-anxiety and ecological grief:** A growing sense of loss and helplessness as children become increasingly aware of environmental destruction.
- **Increased incidence of mental illness:** Rising anxiety, depression, and PTSD cases are likely, particularly following extreme weather events or displacement.
- **Cognitive, developmental, and behavioural delays:** Chronic stress and exposure to climate-related disasters, such as natural disasters or air pollution, during critical developmental stages can hinder brain development, impair learning capabilities, and lead to behavioural issues, including difficulties in social functioning and emotional regulation.
- **Suicidal ideation and substance abuse:** Economic hardships caused by climate-induced displacement and loss can increase the risk of suicidal tendencies and substance misuse among vulnerable youth.

Without intervention, these mental health challenges could also exacerbate existing inequalities, disproportionately affecting marginalized communities and those with limited access to mental health services.

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Dr. Neerja Aggarwal
Co-Founder & CEO, Emoneeds

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Climate change impacts are increasingly evident, not only on our physical health but also on our mental well-being. The rising frequency of natural disasters, unpredictable weather patterns, and the long-term consequences of environmental degradation are contributing to heightened stress, anxiety, and trauma in communities worldwide.

Individuals directly affected by climate disasters often experience post-traumatic stress disorder (PTSD), depression, and anxiety. For instance, survivors of floods, wildfires, or hurricanes may suffer from flashbacks, sleep disturbances, and persistent fear. Displacement from homes and loss of livelihoods further exacerbate these psychological burdens, making recovery even more challenging.

Beyond those directly impacted, the looming fear of future climate-related events creates a phenomenon known as climate anxiety. Among the most vulnerable to its psychological impact are young people between the ages of 15 and 24, who are increasingly presenting with symptoms of anxiety, depression, and a growing phenomenon known as eco-anxiety. This emotional burden, triggered by uncertainty, loss of control, and fears about the future, demands urgent attention from mental health professionals, policy makers, and healthcare systems alike.

Communities that rely heavily on natural resources, such as farmers and coastal populations, are particularly vulnerable. As environmental changes threaten their traditional ways of life, these groups often face heightened levels of stress and depression.

Besides direct exposure to climate hazards, a growing number of people report psychological reactions Solastalgia – the inability of finding solace in a familiar landscape due to environmental degradation

At Emoneeds, we are beginning to see this reality unfold first hand. A significant number of young adults who seek help from us express feelings of insecurity, restlessness, and even rage—all linked, either directly or indirectly, to climate-related stressors. Changes in weather patterns, travel disruptions, and a general sense of instability appear to be contributing to a shift in temperament—marked by irritability, frustration, and a decline in empathy and compassion.

We firmly believe that recovery from mental health conditions must be community and family centred. Healing in isolation is rarely effective. In fact, we often observe relapses when family and peer support is absent or inadequate. Climate change, by straining these very social bonds, poses a unique and complex challenge to recovery models.

The findings of the current report by Primus Partners highlight the need to embed mental health services within broader climate resilience and adaptation frameworks. By aligning mental health outreach and interventions with environmental strategies, we can better address the emotional toll of climate change and build psychological resilience among the youth.

It is only through coordinated, multidisciplinary, and inclusive efforts that we can hope to safeguard the mental well-being of future generations—ensuring that they are not only protected from environmental harm, but also emotionally equipped to shape a more sustainable and compassionate world.

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Dr. Mimansa Singh

Clinical Psychologist,
Head Fortis School Mental
Health Program,
Fortis Healthcare

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The effects of climate change on mental health of young adults can vary depending on the geographical, socioeconomic and individual factors. The uncertainties and disruptions that climate changes have been causing pushing young children to adapt, can be a cause of concern in terms of how it tends to affect their mental and physical well-being. Some children are more sensitive and on them the effect of climate, seasonal disruptions becomes more profound. The main areas of intervention to focus on identifying multiple levels of intervention and identify pathways for slowing down the process of climatic changes. Schools need to create more awareness on preserving our surroundings, its impact and the opportunity cost involved. At the same time providing a more holistic support, and infrastructure to mitigate the effects of climate change can aid in supporting their mental well-being.

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Dr. Sakshi Kochhar

Psychologist, Psychowellness center and TalktoAngel

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The mental health impact of climate change on children and young adults is significant and increasingly recognized by researchers and policymakers. Here are some key points to consider:

- **Anxiety and Depression:** Many young people experience anxiety related to climate change, often termed "eco-anxiety." This can manifest as feelings of helplessness, fear for the future, and distress over environmental degradation.
- **Trauma from Disasters:** Children and young adults living in areas affected by climate-related disasters (like hurricanes, wildfires, and floods) are at higher risk for post-traumatic stress disorder (PTSD) and other mental health issues.
- **Displacement and Loss:** Climate change can lead to displacement, which can disrupt social networks and support systems, further exacerbating mental health challenges.
- **Impact on Development:** Ongoing stressors related to climate change can affect cognitive and emotional development in children, potentially leading to long-term mental health issues

In my viewpoint it should be a focal area and it should be integrated into public health. There should be enough education, awareness with mental health support system.

If no action is taken to mitigate climate change, the potential impact on mental health is likely to be severe and widespread. Here are some anticipated effects and observations:

- There is growing evidence that young people are experiencing heightened levels of distress related to climate change. Surveys indicate that many express feelings of hopelessness about the future.
- Communities facing repeated climate disasters may see a decline in overall mental health, affecting community cohesion and resilience.
- The interplay between physical health and mental health will become more pronounced as climate change exacerbates health issues (e.g., respiratory problems from pollution), leading to increased mental health challenges.

There should be access to care and proper training should be provided to professionals so that they can provide support to people in need.

Education and Awareness should be provided to school regarding climate change and what all coping strategies can be provided to adults. Not only this but the understanding of Mental health should be done in form of open discussions regarding anxiety and depression.

There should be peer support systems for young adults both online and offline where they can share their concerns openly to people without being judged or without the feeling that they will be judged by other people.

Developing policies that address both mental health and climate change simultaneously, recognizing the interconnectedness of these issues should be made

”

Findings

7

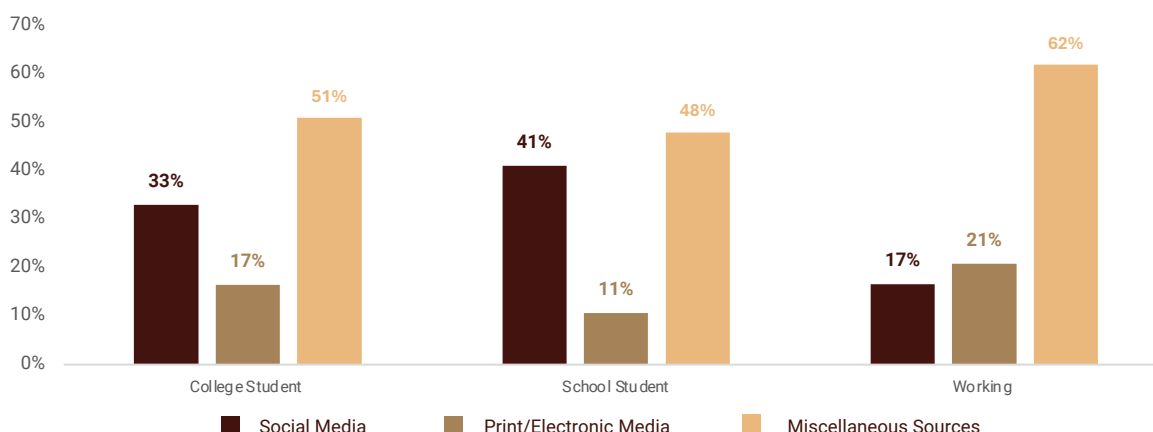
For the purpose of this study a detailed survey tool was shared with the respondents and the findings are highlighted below.

1

Significant levels of awareness about climate induced mental health:

The study highlighted a marked awareness level among this age group regarding the impact of climate change on mental health. 56% of respondents in the age group of 15-18 years and 60% respondents in the 19-24 years group were found to be significantly aware about the mental health issues caused by climatic changes. Hence, it is evident that while a significant proportion in both the age groups are aware of the issue, there is still room to deepen understanding and awareness.

Awareness Sources



2

Social media is the single largest Source of information

The respondents in the specified age group were further bifurcated as school, college students or working professionals. For both the college and school students, the primary source of information is through social media with 33% college students and 41% for school students mentioning social media as primary source of information on climate change and its impact. This conveys that both these age groups consume content around mental health actively through multiple social media platforms. The working age group, with wider access to channels of communication shows information access from various channels with 62% attributing information from mixed sources such as social media, electronic media, peers, colleagues etc. The data highlights the need for sensitizing information through social media as roughly 80% of the respondents are using it as their major source of information.

There is a need to sensitize information via social media as it is open to multiple inferences. Since the major proportion of youth (80%) utilizes social media on a regular basis, it can also be used as a medium of conducting awareness campaigns. This creates an opportunity for the organization to collaborate with policy makers and the cyber cell in running targeted campaigns for the youth.

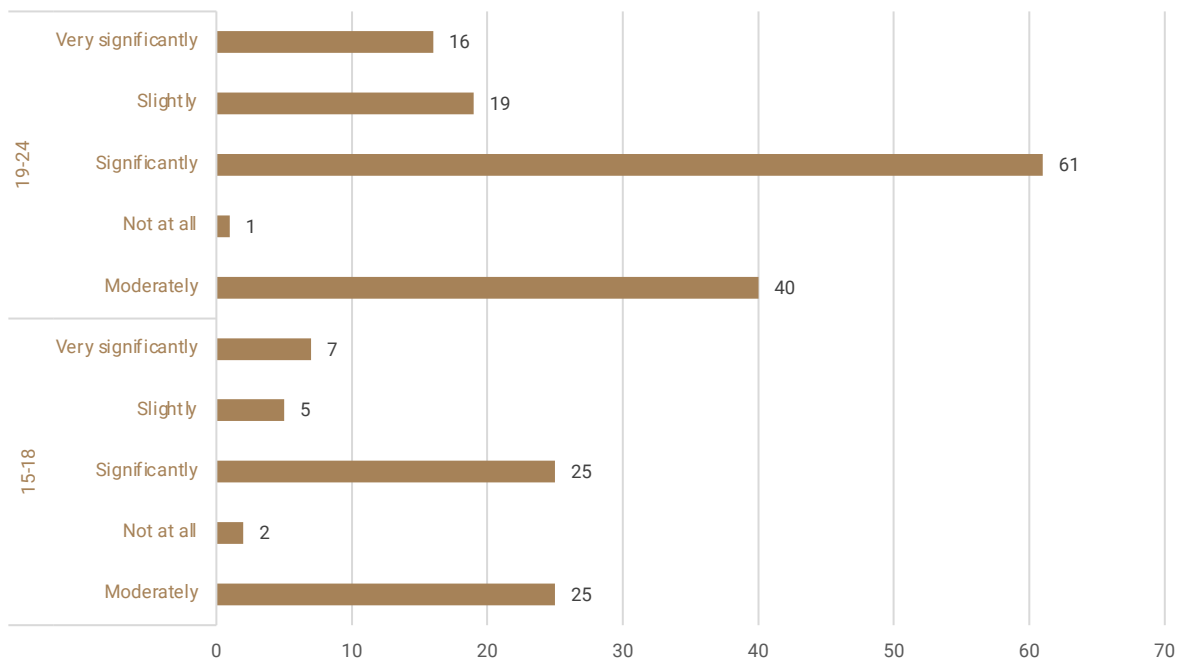
It also highlights scope for improvement in schools and colleges to enhance their educational initiatives for instilling awareness about the impact of climate change on mental health. The focus should be on the quality and authenticity of information available to the youth via social media.

3

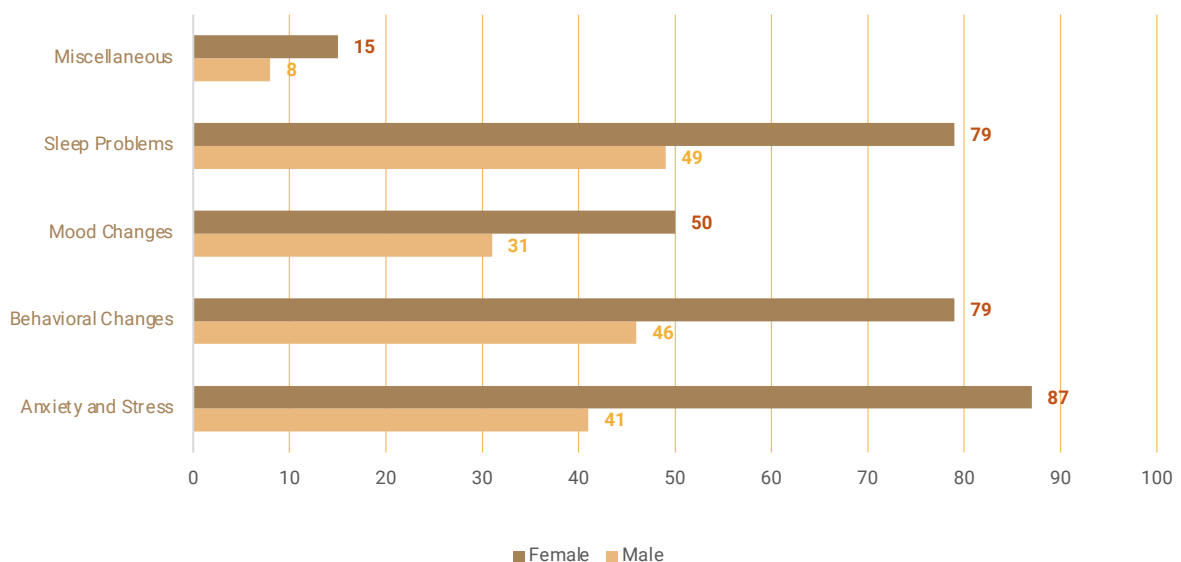
Quantum of mental health issues owing to climate change :

A very marked finding of this study which resonates positively with some of the other major scientific studies is in the percentage of respondents responding experiencing mental health issues due to climate change. 61 out of 137 respondents (44%) in the age group of 19-24 feel that climate change affects the mental health of young population significantly while 40 respondents (29%) feel that it affects them moderately. In the 15-18 age group, 25 out of 64 respondents (39%) each feel significantly affected and moderately affected.

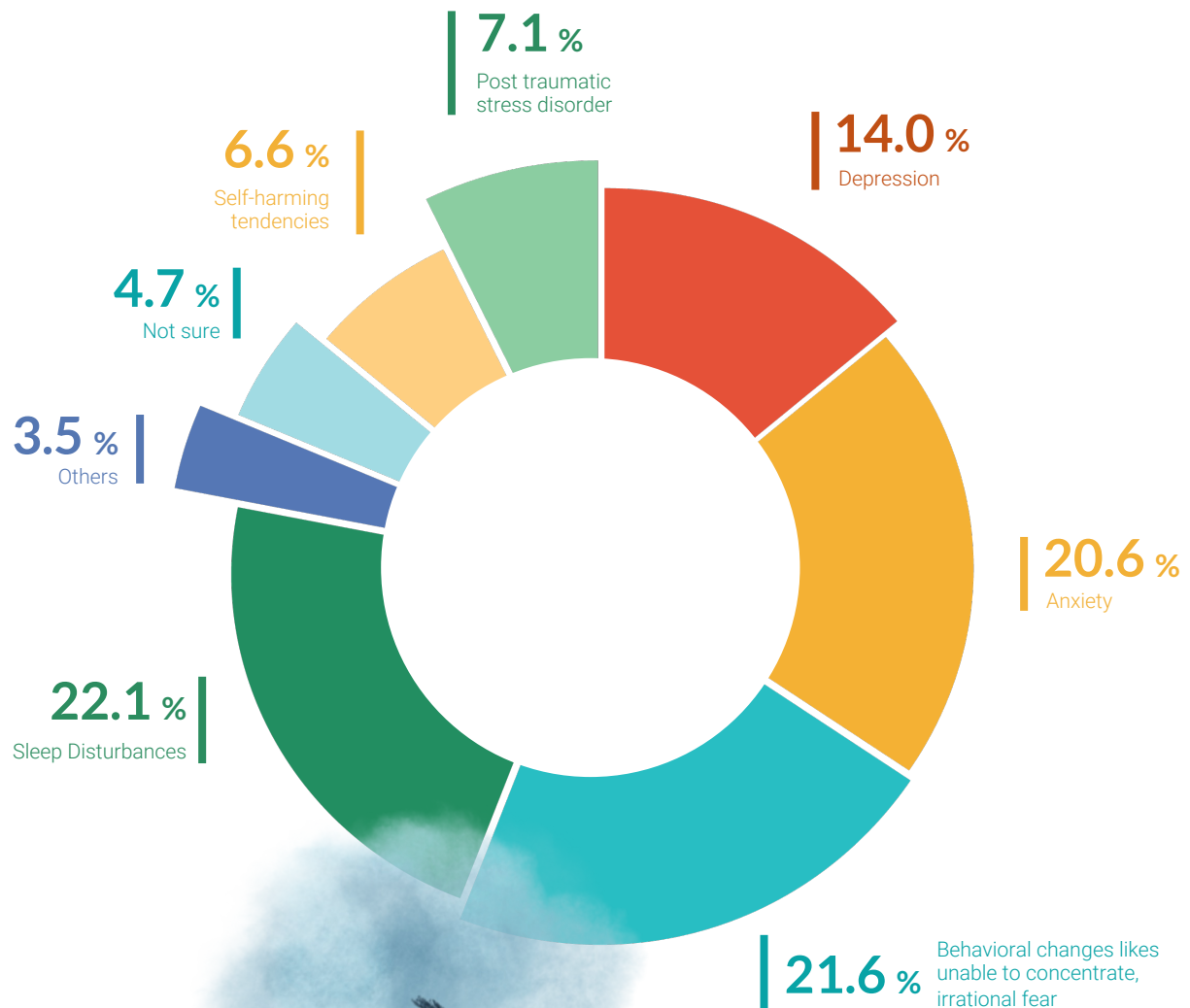
How do you think Climate Change Affects the Mental Health of Young Population



Mental Health Symptoms or Issues Noticed in Young People (Gender-Wise)



The major mental health issues reported by this group can be visualised as majority reporting issues like sleep disorder, followed by anxiety and change in behavioural patterns. Behavioral changes, Anxiety and Stress have a very high total percentage at 21.6% and 20.6% respectively, highlighting its prevalence in the young population. It is slightly higher in females by 4% compared to males. Interestingly, sleep problems accounts for a total percentage of 22.1%, with males reporting it 3% more than females, indicating a slightly greater prevalence in the male population



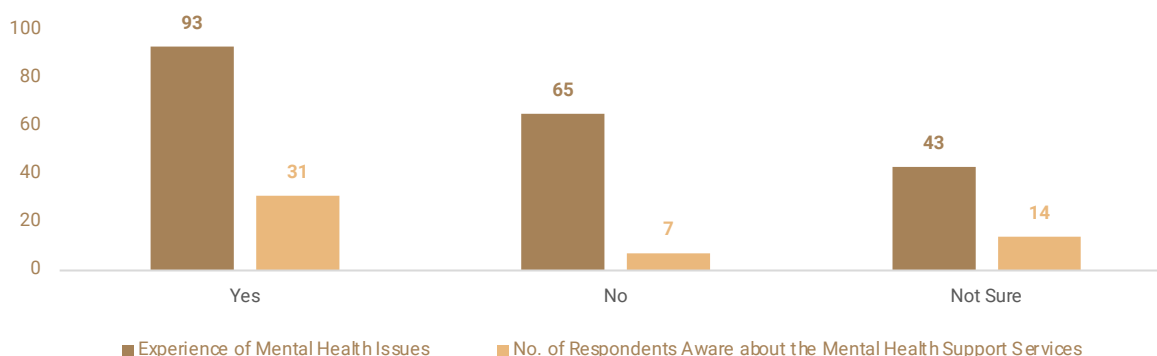
Major mental health issues reported

Another very significant finding from this study which needs multi sectoral and multi stakeholder intervention is in the percentage of respondents who reported facing mental health issues vis-à-vis their knowledge of and access to mental health support services.

4

This relationship between individuals' experience of mental health issues and their awareness of available mental health support services shows that out of 201 respondents, 93 (46%) reported experiencing mental health issues, but only 31 of them (33%) were aware of support services. Among the 65 respondents who did not report mental health issues, awareness was even lower, with only 7 individuals acknowledging knowing about such services. Furthermore, 43 respondents were unsure about their mental health status, and within this group, only 14 had awareness of support services. The data highlights a significant gap in awareness, even among those facing mental health challenges, underscoring the need for better outreach and education on available mental health support systems. It also highlights the need for more awareness activities across educational institutions and through various government programs to ensure that the youth is not only aware about the impact of climate on their mental health but are also able to access quality care in a timely manner.

Experience of Mental Health Vs. Awareness of Support Services

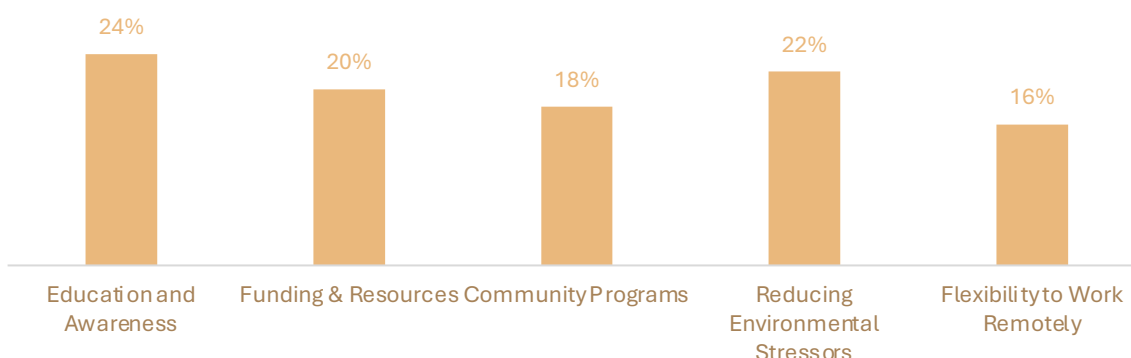


5

Key improvements and policy intervention expected:

This is the crux of the survey. It establishes the expectation of the youth from the larger community in providing them the much-needed support in dealing with the emerging crisis. Irrespective of the age bifurcation, need for more education and awareness holds the highest percentage at 24%, making it the most crucial area for policy focus in mental health and climate change. The youth also feel that the government should take active measures towards reducing environmental stressors, 22% highlighting its importance of mitigating environmental factors impacting mental health. The next important area for action is in enhancing funding and resources to adeptly address the emergency through various government programs and policies.

Improvements / Changes in Policies Needed



Financial impact of climate change on the mental health of young adults

8



India's total population is approximately 1.44 billion, with the 15-24 age group accounting for 252 million individuals, or 17.5% of the total population. As per ILO, 30% of the population in this group is working population. Among this group, 46%—approximately 34.9 million—are estimated to face mental health issues which is substantiated by our finding. The average GDP contribution of working population in India stands at USD 3,915, leading to a total GDP contribution of USD 136.6 billion from this age group.



Hence, a potential 10% reduction in productivity due to mental health challenges could result in an economic loss of USD 13.7 billion annually, which accounts for 0.35% of the GDP. More broadly, India is already losing over 6% of its GDP annually due to premature deaths and preventable illnesses. When focusing specifically on mental health issues, GDP loss among the affected age group is estimated to range around 6% of the net GDP loss attributed to all health issues. This translates into a significant economic burden, amounting to nearly half of the country's health budget.

The convergence of climate change and mental health issues is likely to worsen this situation even more. Rising climate challenges will likely intensify mental health issues, especially among young individuals who are projected to endure its long-term consequences. Without timely intervention, these figures are expected to rise annually. Addressing this issue requires urgent policy-level action involving multiple stakeholders to implement effective strategies, that mitigate the economic and social impact of mental health disorders.



Recommendations and way forward

9

Addressing climate change-induced mental health challenges among youth can be streamlined across

4 PILLARS



1 Policy Interventions & Institutional Support



2 Awareness Generation & Community Engagement



3 International Collaboration & Research Integration



4 Developing a Robust Monitoring & Evaluation (M&E) Framework



Pillar 1: Policy Interventions & Institutional Support:

Establish policy-level changes and systemic support to enhance the mental health response to climate change.



Formulation of a National Policy on Climate Change & Mental Health

- Develop and implement a policy framework addressing climate-induced mental health risks among adolescents and young adults.
- Ensure integration of climate-related mental health strategies into the existing National Mental Health Programme (NMHP).



Capacity Building for Child Welfare Committees (CWCs)

- Revise NCPCR's training manual for CWC members to include climate-related mental health considerations.
- Ensure all children categorized under "Child in Need of Care and Protection" receive mental health screenings for climate distress.



Strengthening Mental Health Infrastructure

- Increase the number of trained mental health professionals to meet WHO-recommended ratios (from 0.75 psychiatrists per lakh population to at least 3 per lakh).
- Expand the presence of mental health professionals in government-run schools, primary health centers (PHCs), and community settings.



Expansion of Psychiatry Seats in Medical Colleges

- Increase the number of MD Psychiatry seats in both government and private medical colleges (current ~850-900 seats vs. ~64,000 for General Medicine).
- Strengthen psychiatric departments in medical colleges with dedicated research programs on climate-related mental health disorders.



Mandatory Training for School Counselors

- Enforce CBSE Clause 2.4.12, ensuring all secondary and senior secondary schools appoint full-time trained counselors.
- Introduce specialized training modules on climate change-induced psychological stress and referral mechanisms.



Increased Budget Allocation for Mental Health

- Raise mental health funding beyond the current 1.98% of the total healthcare budget.
- Introduce dedicated budgetary provisions for climate change and mental health research, interventions, and capacity building.



Expanding Rural Outreach for Mental Health Services

- Strengthen Tele-MANAS (24/7 toll-free mental health helpline) for remote areas.
- Increase awareness through government-led campaigns to ensure maximum utilization of services.



Pillar 2: Awareness Generation & Community Engagement:

Reduce stigma, enhance climate-mental health literacy, and empower communities.



Pillar 3: International Collaboration & Research Integration:

Establish a global knowledge-sharing ecosystem and integrate mental health into climate and health research.



Mass Media Campaigns

- Develop nationwide campaigns to promote awareness of mental health impacts due to climate change.
- Utilize television, radio, social media, and print media for wide outreach.



Training of Frontline Healthcare Workers

- Integrate mental health awareness modules into CHO (Community Health Officer), ASHA (Accredited Social Health Activist), and ANM (Auxiliary Nurse Midwife) training programs.
- Equip frontline workers to recognize early symptoms of climate-induced distress and refer cases for intervention.



Reducing Societal Stigma

- Engage community leaders, religious institutions, and local influencers to de-stigmatize seeking mental health care.
- Conduct workshops in schools and universities to encourage mental well-being discussions.



Engage International Organizations & Funding Agencies

- Collaborate with WHO, UNICEF, UNDP, World Bank, and regional climate-health research networks.
- Secure international funding for climate-mental health initiatives.



Develop Global Learning & Policy Exchange Forums

- Organize cross-country dialogues to exchange best practices and research insights.
- Participate in global climate-health conferences to advocate for policy changes.





Integration of Mental Health into Climate Research

- Include mental health indicators in national climate research projects.
- Establish a Climate Change & Mental Health Research Center in premier medical institutions.



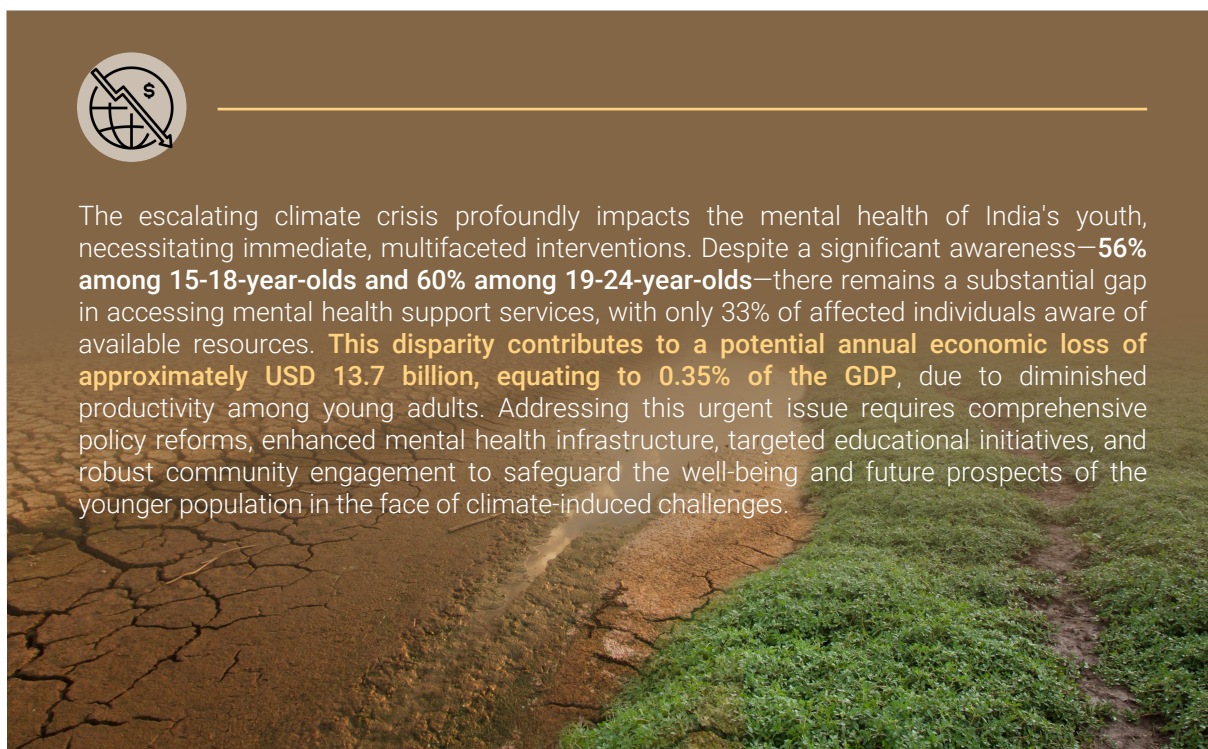
Pillar 4: Developing a Robust Monitoring & Evaluation (M&E) Framework:

A robust and effective monitoring and evaluation framework if implemented effectively can adequately and in a timely manner track the strides made at harnessing the devastating effects of climate change on the mental health of young adults. Some of the key indicators to track the efforts and their outcome can be:

 Key Performance Indicators (KPIs)	 Target/M Measurement
<ul style="list-style-type: none"> • Number of trained school counselors • Increase in mental health budget • Psychiatry seat expansion • Awareness campaign reach • Tele-MANAS call volume • Private sector partnerships • Climate-mental health research projects 	<ul style="list-style-type: none"> • 100% CBSE compliance & state board replication • Minimum 5% of total health budget • At least 5,000 seats by 2030 • 50 million+ citizens engaged • 50% increase in rural utilization • 50+ major hospitals engaged • 10+ national projects funded



The escalating climate crisis profoundly impacts the mental health of India's youth, necessitating immediate, multifaceted interventions. Despite a significant awareness—**56% among 15-18-year-olds and 60% among 19-24-year-olds**—there remains a substantial gap in accessing mental health support services, with only 33% of affected individuals aware of available resources. **This disparity contributes to a potential annual economic loss of approximately USD 13.7 billion, equating to 0.35% of the GDP**, due to diminished productivity among young adults. Addressing this urgent issue requires comprehensive policy reforms, enhanced mental health infrastructure, targeted educational initiatives, and robust community engagement to safeguard the well-being and future prospects of the younger population in the face of climate-induced challenges.



Annexure

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Team



Nilaya Varma
Co-Founder and
Group CEO



Vivek Tandon
Vice President



Madhumita Sen Gupta
Assistant Vice President



Abhilasha Sachdeva
Assistant Vice President



Dr Akshay Thakur
Manager



Sanjana Gupta
Sr. Consultant



Karan Mohindroo
Sr. Consultant



Smayan
Consultant

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Dollars Colony,
Bengaluru – 560076



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2nd Floor, Netsmartz,
Plot No. 10, Rajiv
Gandhi Chandigarh
Technology Park,
Chandigarh – 160019



Chennai

147, Pathari Rd, Door #3,
WorkEz Hansa Building,
RK Swamy Centre,
Thousand Lights,
Chennai, TN - 600006



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1 to 7, UG Floor,
Tolstoy House,
Tolstoy Road,
Connaught Place
New Delhi - 110001



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Siddhartha Apartments
4th Floor, 188/2,
Block J,
New Alipore,
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