## **CLIMATE TALK**



NEWSLETTER

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**CLIMATE CHANGE** 

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# MENTAL HEALTH

# WHAT IS CLIMATE CHANGE AND HOW IT IS RELATED TO MENTAL HEALTH?

The framework convention Climate Change (UNFCCC), in its Article 1, defines climate change 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. Climate changes can occur in three forms for all living beings. First, which are slowly occurring and thus, not identifiable without using the special measures e.g., rise of environmental temperature and pollution. Second category include events that acute, considered as disasters and occur consequent to slowly occurring climatic changes e.g., flood, drought, landslide and avalanche. Incremental changes such as Rising temperatures, rising sea levels, and episodic agricultural conditions drought, weaken infrastructure and give rise to financial and relationship stress, displacement of entire communities. Which in turn increases risks of violence and aggression causing despair and hopelessness including increase in rates of suicide and rise in substance use.

Climate change is contributing directly to increased injuries, illnesses, and deaths from climate-sensitive health outcomes, with health risks projected to increase as temperatures,



precipitation, and other variables continue to change. Experiencing these types of events can cause significant stress and distress for many and can contribute to more concerning mental health issues. There exists a substantial literature documenting the mental health consequences of extreme weather events and natural disasters lastingfor days, such as hurricanes, floods, wildfires, and short-duration heat waves. These consequences include elevated rates of anxiety and mood disorders, acute stress reactions and post-traumatic stress disorders, sleep disruption, suicide and suicidal ideation, as well as a decreased sense of self and identity from loss of place and grief reactions.

Understanding the scope and scale of mental health impacts associated with climate change is an important first step to developing and implementing programmes/services designed totreat or prevent these impacts. Theimpacts represent both direct (i.e. heat stress, exposure to extreme weather events) and indirect. Subacute and longlasting climate-related events will also require development and implementation of new types of broader intervention like planned relocation of communities, public health education, violence prevention, risk communication. personal engagement in environmental conservation, and promotion of positive psychological outcomes associated with climate change.

# DELIVERABLES UNDER MOU BETWEEN NATIONAL CENTRE FOR DISEASE CONTROL AND NIMHANS

The Ministry of Health & Family Welfare launched the National Programme on Climate Change and Human Health (NPCCHH) in2019. One of the main objectives of the programme is to create awareness among general the population (vulnerable community), health-care providers and Policy makers regarding impacts of climate change on human health. National Centre for Control (NCDC) Diseases identified as the nodal agency for 'Health Mission' by the Ministry of Health & Family Welfare (MoHFW), Government of India. For the NPCCHH, NCDC recognised 17 Centres of Excellence (CoE) one of which was the National Institute for Mental Health and Neuro Science (NIMHANS) in Bengaluru, which was designated as a CoE for Mental Health.

A Memorandum of Understanding between NCDC and NIMHANS was signed. The MoU's deliverables have been completed and are listed below.

#### 1. National Health Action Plan

The objective of climate change and mental health under National Programme on Climate Change and Human Health (NPCCHH) is to develop a comprehensive health system response to prevent and control mental health impacts due to climate change.In this regard, a comprehensive health action plan was developed on climate change and mental health. The Health Action Plan includes situational analysis of mental illness in the context of climate changes, awareness generation, Surveillance establishment on illnesses due to climate change, need based capacity building training, public health management and operational coordination with other stakeholders.

## 2. Standard Operating Procedure (SOP) and Guidelines

Standard Operating Procedure and Guidelines were outlinedin accordance with the National Health Adaptation Plan. SOP are more specific and will guide the Mental health practitioners to work in a more consistent manner. It has well defined segments for Medical Officer and Paramedicals which enlists the roles and responsibilities they have. The document also pictorially depicts the Monitoring Evaluation program along with the Surveillance data flow. It talks about who will collect the data from the PHC, District hospital and how it will reach the State Nodal Officer.

#### 3. Surveillance

A surveillance system was set up in the Kodagu district of Karnataka. The surveillance system will help in predicting the trends of the psychological problems due to climate variability and will enable us to be ready for action at community, facility health and governance systems.

#### 4. Monitoring and Evaluation

Monitoring will be done Monthly / quarterly for climate sensitive mental illnesses. MoHFW, State DoHFW, District Health Officers and the individual health facilities will be involved in regular monitoring. Monitoring proforma for district level has been given in the Monitoring and Evaluation document.

#### 5. Training Manuals

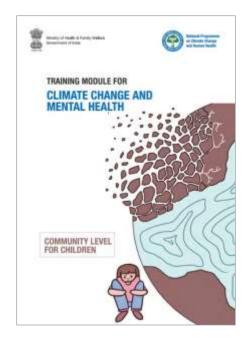
- i) State Nodal officer and District Nodal Officers and Consultant Climate change
- ii) Medical Officers
- iii) Paramedical officers & health care workers
- iv) Community level for Vulnerable population
- v) Community level for Children

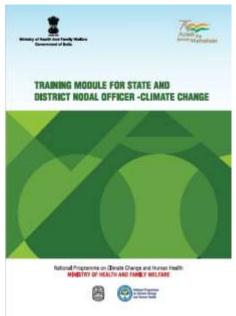
These manuals will help guide them to identify and treat patients with illnesses relating to climate change in a more consistent and reliable manner. The community-level manuals are meant to help the general public understand and implement the preventative and promotional strategies outlined in the manuals.

#### 6. IEC Materials

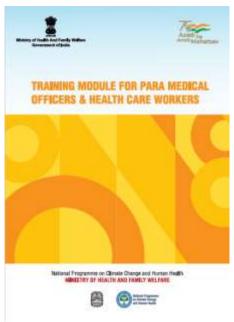
The primary goal of the IEC materials is to inspire and educate people about prevention, care and/or treatment of various health issues and for a better understanding of the same in a more comprehensive way. IEC is now considered as cross cutting issues and tools to deliver quality health care. The effectiveness of IEC materials largely depends on relevance, appeal, uniformity,

simplicity of the content and language, accuracy of information, length of the material, cultural appropriateness, availability and modes of dissemination. We attempted to do so in a simple, understandable manner using regional languages. 10 print IEC material, 10 GIFs, 5 Videos and 5 audios have been developed on Climate change and Mental Health. Below are a few of them.

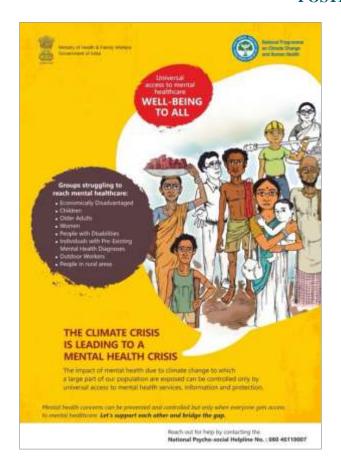






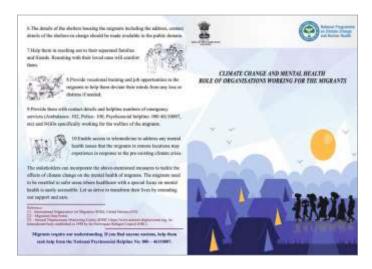


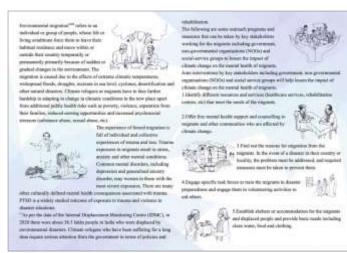
#### **POSTERS**





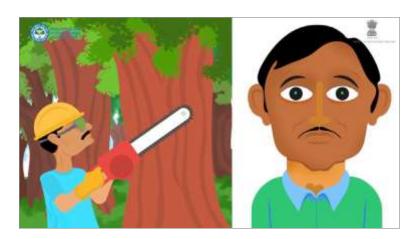
#### **BROCHURES**





#### **GIFS**





#### **AUDIO PODS**



#### **VIDEOS**





## HEARING IT, FROM THE EXPERTS

# The art of supporting someone in distress

Dr. Seema Mehrotra, Professor, Department of Clinical Psychology, NIMHANS, Bengaluru

Extreme changes in weather canaffect us in many ways including our mental wellbeing. Our mental wellbeing is not just to do with how we are feeling at a given point of time but it also affects how well we are able to function or carry out our responsibilities day-to-day handle various situational demands. This means that we may need to pay extra effort to protect and maintain our mental wellbeing in the face of adverse weather conditions through engaging in self-care activities that can help us manage our moods.

There are things we can do for those around us too - to help them manage their stress, feel better and cope better. Although providing support to others is very much a regular and natural part of our daily life, there is an art and science of supporting others to handle emotional distress and it can be of help to refine our supporting skills. So, here are a few quick tips tothink about and practice:

a) Look out for signs of distress and pause to ask - In the hustle and bustle of social life, we may miss noticing or paying attention to the signs that someone around us is perhaps feeling down, or rather aloof and disturbed. At times, even when we do, notice we may forget to spend a few extra minutes to ask the person how they have been feeling or mention that

something seems to be bothering them. Although we may at times think that one cannot be of help; the reality is that feeling cared for and supported emotionally has several benefits for someone in distress.

- b) Listen actively and patiently rather than jumping to advisinggiving mode - Advice-giving is a very common mode of response when providing support. But, offering psychological support, it is of utmost importance to withhold this urge and listen sufficiently. This has many benefits. It helps us understand the person's perspective and communicates to the person that we are genuinely interested in their wellbeing. Premature or too frequent advice-giving before listening to the person may not serve a useful purpose.
- c) Avoid trivializing At times, we may say things that make the other person feel unsupported or invalidated. For example, saying something like 'Hey, it's a small thing, don't worry' carries the risk that your remark seems like belittling or trivializing what is important for the other person.
- d) Permit expression of emotions -In the course of interactions, we may feel uncomfortable when

someone starts expressing their emotions. In such a scenario, we may end up giving signals that stop the person from sharing further (e.g., 'Don't cry'/don't worry'/'be happy'). Allow the person some space and time to express their emotions so that they feel heard and also, you are able to get a better idea of the nature of their distress or its severity in order to provide the right kind of help.

#### e) Jointly explore options/solutions

- When you have listened sufficiently, you may be able to move on to exploring (together) the potential options to handle the situation. Avoid thrusting a solution; help the person generate and think through the potential options. Remind them to step back and take their time if they are feeling highly distressed – because intense moods can cloud our perception and thinking.

Lastly, stay aware of your limitations as a support provider. Motivate the distressed person to reach out for further help from a professional if their distress seems intense/going on for several days /significantly affecting their day-to-day functioning. Informal support and professional support can actually complement and supplement each other. Your support matters for the mental wellbeing of those around you. You can make it count!

# Managing our moods in adverse weather conditions

Dr. Paulomi M Sudhir, Professor, Department of Clinical Psychology, NIMHANS, Bengaluru

Human beings share a close relationship with their environment and variations in climate impact us by affecting our mood. This is due to varying exposure to light, temperature, individual variability in tolerating temperatures, and impact on physical activities, sleep, and diet. Commonly noted are sad mood and reduced levels of energy (feeling lethargic) during winters, and monsoons, anxiety, anger, and irritability when temperatures are high.

## Why do we need to manage mood in the context of climate change?

Changes in mood due to climate cause considerable distress and impairment in one's daily activities. Because it is not possible to change climatic or seasonal variables, it would be important to learn how we can understand and manage mood variations associated with climatic conditions and prevent the worsening of mood, negative thoughts, and behaviours.

### How do we manage our mood states that are due to climatic conditions?

Managing our emotions requires us to identify, alter, and adapt our responses, including thoughts and behaviours, thereby bringing about changes in mood. Recognizing alterations in mood in the context of climate change is challenging and requires monitoring. Here are some ways in which you can manage your moods.

#### a) Monitor your mood and thoughts

as you notice them - Note down how frequently they occur, how strong they are and name them (sad, angry, irritable), what worsens or improves it, associated thoughts ("I can do nothing, I am useless" "no matter what I doI cannot change this"), responses (e.g. not going out, lying in bed).

- b) Systematically increasing physical activities - Depression is usually characterized reduced activities, low levels of energy, tiring easily, and reduced interest in activities. These worsen during conditions such as cold climate when there is very little sunlight or opportunities for outdoor activities. Behavioural activation is an approach that targets the vicious cycle of low mood, low activity levels, and negative thoughts, by increasing engagement in activities that are incompatible with ruminations, worry, and greater negative mood.
- d) Recognize and monitor activities (self-care, exercise) affected by changes in mood Scheduling activities and engaging in them in a graduated manner, from easy to more challenging ones, rating the associated pleasure and mastery.
- e) Maintaining a regular sleep-wake schedule - Climate changes impact our sleep-wake schedules and have a cascading effect on activity, dietary patterns,

and mood, both directly and indirectly. Maintaining a regular sleep-wake schedule, diet, and exercise helps regulate our mood and accompanying behaviors.

f) Managing bodily changes -Strong emotions are associated with changes in body or our arousal. such as increased heartbeat, sweating, restlessness, and sleep disturbances. Reducing bodily arousal can be achieved through the regular practice of strategies such as deep breathing, deep muscle relaxation, and meditation.

#### d) Challenging unhelpful thoughts -

Negative thoughts are frequently a part of our negative mood state. They can be managed by identifying them (e.g., using a thought diary), generating alternative ways of viewing situations, and examining how it impacts our mood (e.g., Whatis another way of looking at this, what is the effect of thinking this way? What is the best, worst, and most realistic outcome of this?).

#### **Conclusions**

Managing mood changes inresponse to adverse climatic conditions can be achieved through a series of interrelated strategies and skills that target not only mood but also factors that contribute to negative mood.

## STUDENT CORNER

# Man vs Nature - "The code red" for humanity

Dr. Aastha Kamboj (JR, MD Psychiatry)

In the past few decades, the deleterious influence of human behaviour on climate has become quite evident. Whether it is melting polar ice caps, increased incidents of floods and droughts, more species facing endangered or extinct status, effect of UV radiation and ozone depletion, decreased snowfall or the planet becoming "hotter" in general, we have been facing the wrathful effects of climate change. Based on a report by the Ministry of Earth Sciences, Government of India-India's average temperature has been around 0.7°C from 1901-2018 andis projected to rise by approximately 4.4°C by the end of the 21st century. If that isn't alarming enough, there has been a decline in precipitation by around 6% from 1951 to 2015, sea level rise of nearly 3.3 mm/year in the North Indian ocean in the past few decades and evidence of decreasing snowfall and retreating glaciers in Hindukush Himalayas.

Anthropogenic climate change tends to influence individuals and communities in two ways- the direct way, which involves exposure to severe calamities such as floods, cyclones, droughts and wildfires and the indirect way, which includes slowly developing progressive changes in social, economic and political determinants secondary to

climate change. These are associated with increased diagnosis of mood disorders, anxiety disorders, acute stress reactions, PTSD, addiction, feelings of hopelessness and increased suicidality. Various studies have shown a positive correlation between higher temperature days and mortality. Costello et al report estimated 5.5 million DALY lost in the year 2000 alone, secondary to climate change. (Costello, 2009)

From Kashmir to Kanyakumari-we are connected by this brutally unfortunate thread of natural calamities – whether it is floods in Assam, Kashmir or Kerala, Kedarnath tragedy, Tsunamis, Droughts and Famines in South India leading to farmers' suicide. Alas, not all individuals are equally susceptible - elderly, children, people with premorbid physical and psychological illnesses, communities living in close relation with the environment orin areas most susceptible to harm and indigenous people are the most at risk. The sad part is that the low- and middle-income countries that are among the least responsible for greenhouse gases, are among the most susceptible to risk of climate change related events due to increased dependence on nature for sustenance and fewer resources to deal with stressful events.

An article "Identifying and Preparing for the Mental Health Burden of Climate Change" published in 2022 shows the findings by Nori-Sarma et al correspond to-and extendfindings from past research into heat and mental health hospitalizations across smaller geographic regions. Furthermore. these findings correspond to empirical associations uncovered between heat and expressed emotional states, self-reported mental health status, and more extreme outcomes such as suicide.

It is high time that we start acknowledging the elephant in the room and become prepared for the inevitable. Increased awareness among the health professionals, identification resilience promotion and susceptible population, increased preparation for psychological interventions in disaster preparedness and interdisciplinary collaboration may be needed to alleviate climate change related adverse mental health events.

As Mahatma Gandhi said- "Earth provides enough for every man's need, not for every man's greed". As vigilant citizens, it is our duty to start working on climate change before the damages become irreversible.

#### **Interventions**

- 1. Promotive measures Get regular exercise. Just 30 minutes of walking every day can help boost your mood and improve your health.
- 2. Eat healthy and stay hydrated. A balanced diet and plenty of water (3-4 litres/day) can improve your energy and focus throughout the day. Also, avoid beverages containing caffeine and soft drinks.
- 3. Make sleep a priority. Stick to a schedule, and make sure you're getting enough sleep. Blue light from devices and screens can make it harder to fall asleep, so reduce blue light exposure from your phone or computer before bedtime. (reduce exposure to phone 2 hours before you sleep)
- **4.** Try a relaxing activity. Explore relaxation techniques or online wellness programs which may have yoga, meditation, muscle relaxation and/or breathing exercises.
- 5. Write your feelings. Maintain a diary for writing your day-to-day activities and how you are feeling at the moment. Read it to remind yourself daily of things you are

- grateful for and how you have overcome emotional burden.
- 6. Set goals and priorities. Decide what must get done now and what can wait. Learn to say "NO" to new tasks if you start to feel like you are taking on too much.
- **7. Stay connected.** Reach out to your friends or family who can provide emotional support and practical help. Don't shy away from asking for help.
- **9. Reach out to a mental health professional.** If your symptoms are increasing and when you are not able to manage then reach out to a mental health professional.

#### **Preventive Measure**

- **1.** Use eco-friendly modes of transportation: Riding a bicycle can help you exercise while decreasing pollution at same time.
- 2. Use energy-efficient products:

  This delivers a number of environmental benefits, notably reducing Greenhouse gas emissions.
- **3. Stop using single-use plastics:** Plastics are non-biodegradable. It pollutes both land and water thereby threatening wildlife and

- emitting toxins into the soil and ocean. Plastic also contributes to global warming. Burning plastics in incinerators also releases climate-wrecking gases and toxic air pollution.
- **4. Practice rainwater harvesting:** This helps to eradicate water scarcity and has long term benefits for our future.
- 5. You also can help by planting trees: Trees help restore the fertility of soil thereby fighting soil erosion. It also helps recharge underground water and prevents transport of chemicals into water streams.
- 6. Form eco clubs: They are groups at schools, organization, college and workplace where the members show interest in environment related issues jointly by a teacher or a leader of the group.
- 7. Indulge in energy: Adopting conservation methods on a day-to-day basis such as switching-off lights and fans when not in use, reducing the wastage of tap water, etc.
- **8.** Follow the 5R's of conservation: Reduce, Reuse, Recycle, Restore and Replenish.

# TRAINING PROGRAMMES CONDUCTED AS PART OF MOU

## 1. National Programme on Climate Change and Human Health (NPCCHH) - Online training for all State and District Nodal Officers on climate change and human health

As a part of the National Programme onClimate Change & Human Health initiative, the National Institute of Mental Health and Neurosciences (NIMHANS) - Bengaluru has been a 'Centre designated as Excellence' for Mental Health, by the Union Ministry of Health and Family Welfare, Govt. of India. It was proposed to train healthcare workers on the topic 'climate change and its influence on mental health'. As may be noted, climate change is one ofthe great challenges of recent times having the potential to adversely affect large proportions population. Community The Psychiatry team had

prepared voice over presentation as a training module for the healthcare workers and nodal officers in the country. This was presented in the above said programme which was held on 12/8/2021 between 3:45-4:20pm on the topic "Mental health associated with Climate change". Around 257 participants (195 Paramedical Personnel and 77 Medical officers) attended the programme where existing literature about the impacts of climate change in various states of India and Interventions to promote mental well-being of the population was discussed.





#### 2. Training for state programme stakeholders on Climate Change and Health Issues

NPCCHH conducted a training programme on Climate Change and Health Issues from 10<sup>th</sup> to 13<sup>th</sup> August, 2021, 2:00pm- 5:00pm. The objective of the training was capacity building for state programme stakeholders on

'Climate Change & Health Issues'. On 12<sup>th</sup> August 2021, Dr. Patley Rahul, Senior Resident, Community Psychiatry, delivered a presentation on Mental Health associated with Climate Change.



#### 3. Outcome dissemination and future strategy workshop

On 15<sup>th</sup> September 2021, an outcome dissemination and future strategy workshop on "Health Adaptation and Resilience: Advancing Strategies, Knowledge and Capacities" was organized and hosted by National

Institute of Disaster Management, New Delhi.

The workshop begun with an inaugural ceremony followed by dissemination session which included

release of document on NHAP for disaster related illness. The Session 3 encompassed a panel discussion on future strategy recommendation chaired by Dr. Aakash Shrivastava.

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