delated bedtime and shorter sleep duration (Liu et al, 2020; Hunter & Hayden, 2018).

Air Pollution: Air pollution has been found to adversely affect the sleep (Hunter & Hayden, 2018). This effect may be immediate as well as long lasting. Air pollution during pregnancy can affect the sleep duration of the foetus (Bose et al, 2019).

Amidst such drastic climatic changes, what can you do to get quality sleep?

1.Try to keep a regular sleep/wake schedule.

2.Maintain sleep hygiene i.e., wake up at the same time each day, even on weekends and holidays. Maintain regular bedtime and rising time.

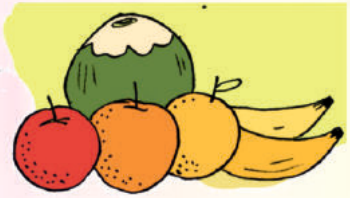
3.Minimize bright screens within 1-2 hours of your bedtime. The blue light emitted by your phone, laptop, or TV is especially disruptive.

Avoid nap: If you have to take a nap, try to keep it to less than one hour and avoid taking a nap after 3 PM.

4.Practice relaxation techniques.

5.Avoid cigarettes, alcohol, and excessive caffeine. Do not use alcohol as a sleep aid.

6.Eat healthy and balanced diet rich in fruits and vegetables.



7.Avoid sleeping pills or use them cautiously as prescribed by a physician.

If your sleep problem persists, please visit a doctor.

Climate change disrupts sleep in a variety of ways, causing anxiety, distress and worry resulting in getting insufficient sleep on a regular basis. This can lead to a decline in health and emotional wellbeing, as well as worsening of mental health. Sleep is important for a person's health, well-being and survival. Everyone, from children to older adults, can benefit from improved quality of sleep.

In case you are facing distress due to drastic climatic conditions, contact the National Psycho-Social Helpline at 080-46110007

Ministry of Health and Family Welfare
Government of India

Azadi Ka Amrit Mahotsav

NATIONAL RURAL HEALTH MISSION
राष्ट्रीय ग्रामीण स्वास्थ्य मिशन

NATIONAL CENTRE FOR DISEASE CONTROL DELHI

National Programme on Climate Change and Human Health

Climate Change and its impact on sleep

Take action towards a greener environment for better mental health

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 are acute, considered as disasters and occur consequent to slowly occurring climatic changes e.g., flood, drought, landslide and avalanche. Thirdly, humans are subjected to acute to long lasting climatic changes due to migration, which can be voluntary or forced.

Slow Climatic Change	**Acute events**
Rising temperature Pollution Deforestation	Flood Drought Avalanche Landslides

These changes influence mental health as well as sleep. They increase the risk for psychiatric and sleep disorders.

Why should we worry?

•One should understand that sleep and psychiatric disorders have a complex relationship where:

➲Psychiatric disorders and their treatment increase risk for sleep disorders.

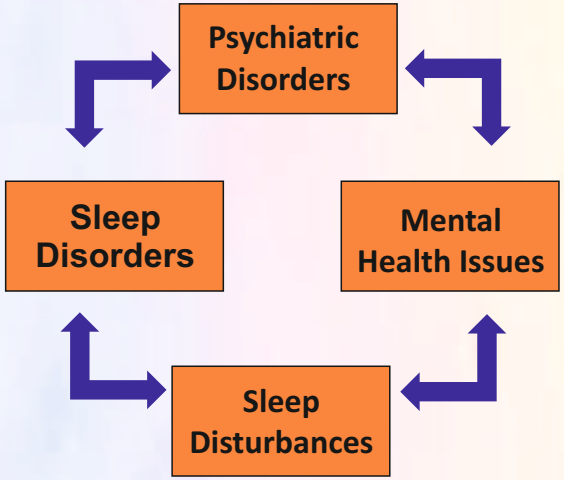
➲Depression and anxiety increase risk for insomnia, parasomnia and poor sleep quality

➲Addictive disorders like tobacco use/smoking, cocaine and alcohol withdrawal increase risk for insomnia

➲Post-traumatic stress disorders increase risk for poor sleep quality and obstructive sleep apnoea

➲Sleep disorders increase risk for psychiatric disorders.

·Sleep disorders may mimic psychiatric disorders.



Untreated psychiatric and sleep disorders also:

➲Increase risk for other medical disorders e.g., diabetes mellitus, coronary artery disease, stroke, obesity etc.

➲Have large economic impact through work absenteeism, reduced productivity etc.

➲Worsen quality of life

Recent scientific evidences suggest that slowly occurring climate changes e.g., environmental temperature, changing weather, pollution e.g., air-pollution and light pollution has influenced the sleep-wake schedule, total duration of sleep and facilitated the occurrence of sleep disorders like insomnia, insufficient sleep syndrome and obstructive sleep apnea.

Environmental temperature: Environmental temperature has significant impact on human sleep. These effects lead to a state of insufficient sleep and have been more pronounced in women, elderly and among lower income group (Minor et al, 2020; Obradovich et al, 2017).

Light Pollution: Light pollution is known to disrupt circadian rhythm and thus, sleep wake cycle (Patel, 2019; Johnson et al, 2018). An increase in sky brightness during night has been found to:

➲Reduce sleep duration by 6 min/day

➲Increase risk of insufficient sleep (<7 hours)

Noise pollution: Noise pollution occurring at nighttime as well as at daytime is associated with disturbed sleep. For example- Daytime sleepiness,