

Orientation Programme

On

‘Extreme Heat Prevention & Preparedness’

Mode: SATCOM Programme

Dates: 12th March 2025

1. Background:

Climate change is leading to an increase in extreme heat events, posing significant risks to human health, agriculture, and ecosystems. In India, the impact of extreme heat is particularly pronounced, with temperatures frequently exceeding 45°C (113°F) in many parts of the country.

According to data from the India Meteorological Department (IMD), 2022 and 2023 witnessed several instances of extreme heat across the country. In May 2022, Delhi experienced its hottest day on record, with temperatures reaching 47.1°C (116.8°F). Other cities such as Churu in Rajasthan recorded temperatures as high as 50.8°C (123.4°F). In 2023, the IMD reported that several regions experienced severe heatwaves, with temperatures exceeding 45°C (113°F) in many areas. For instance, in June 2023, Chandrapur in Maharashtra recorded a temperature of 48.9°C (120°F), while Titlagarh in Odisha recorded 48.5°C (119.3°F).

1.1 In context to Gujarat:

According to data from the Gujarat State Disaster Management Authority (GSDMA) and the IMD, Gujarat has also experienced its share of extreme heat events in recent years.

In May 2022, several cities in Gujarat recorded temperatures above 45°C (113°F). For example, Ahmedabad recorded a temperature of 46.8°C (116.2°F), while Kutch recorded 47.5°C (117.5°F). In 2023, Gujarat faced severe heatwaves, with temperatures soaring above 45°C (113°F) in many parts of the state. For instance, in June 2023, Rajkot recorded a temperature of 48.4°C (119.1°F), while Bhuj recorded 47.8°C (118.0°F).

These extreme heat events not only lead to discomfort but also have serious health implications. Heatwaves can result in heat-related illnesses such as heatstroke, dehydration, and heat exhaustion, particularly among vulnerable populations such as the elderly, children, and those with pre-existing health conditions. Furthermore, extreme heat can have detrimental effects on agriculture, leading to crop failures and food insecurity. It can also impact ecosystems, leading to biodiversity loss and ecosystem degradation.

In conclusion, the increasing frequency and intensity of extreme heat events in India are a clear indication of the impact of climate change.

2. Why is there a need?

Capacity building on extreme heat prevention and management is crucial for several reasons:

- **Health Impacts:** According to the National Disaster Management Authority (NDMA) of India, heatwaves have led to thousands of deaths in India in recent years, with the elderly and young children being particularly vulnerable.
- **Vulnerable Populations:** The Indian Council of Medical Research (ICMR) states that individuals with pre-existing health conditions such as cardiovascular diseases, respiratory diseases, and diabetes are at higher risk of heat-related illnesses.
- **Climate Change:** The Intergovernmental Panel on Climate Change (IPCC) predicts that heatwaves will become more frequent and intense in many regions due to climate change. IMD has also reported an increasing trend in the frequency and intensity of heatwaves in India over the past few decades, attributed to climate change.
- **Economic Impact:** The Indian Institute of Technology (IIT) Bombay estimated that heatwaves cost the Indian economy over \$7 billion annually in terms of healthcare costs, lost productivity, and agricultural losses. A report by NDMA projected that heatwaves could lead to a 5-10% reduction in agricultural productivity in India by 2030, affecting millions of farmers.

Overall, capacity building on extreme heat prevention and management is essential for protecting public health, improving resilience to climate change, and reducing the economic impact of extreme heat events.

3. Objective of the Programme:

The objective of the SATCOM programmes on 'Extreme Heatwave Prevention and Preparedness' is to enhance the capacity of stakeholders to effectively prepare for, respond to, and mitigate the impacts of heatwaves. The programme aims to achieve the following goals:

- To develop a sound understanding about Extreme Heat Prevention.
- To increase awareness about the risks associated with heatwaves and the importance of preparedness and resilience measures.
- To build the capacity of relevant healthcare professionals, and community volunteers, to effectively respond to heatwaves through the SATCOM programme.

- To encourage community participation and engagement in heatwave preparedness and resilience efforts, including the development of community-based initiatives and strategies.

4. Target Department:

Sr. No.	Department	Target Groups
1.	Health & Family Welfare Department	Paramedic Staff ASHA Workers

5. List of Proposed Programme:

It is proposed to conduct a SATCOM programmes on 'Extreme Heat Prevention and Preparedness' as per the following details:

Sr. No.	Date	Department	Target Participants
1.	12 th March 2025	Health & Family Welfare Department	ASHA Workers, Paramedic Staff
