National Programme on Climate Change and Human Health

Andhra Pradesh

Swasti THE HEALTH CATALYST

HEAT ACTION PLAN

Ananthapuramu District

2026

Led by:

In Partnership with:

Launch of the Ananthapuramu District Heat Action Plan at the World Health Summit Regional Meeting 2025, New Delhi, during the session "Heat and Health in a Warming World: Strengthening Resilience and Response," hosted by the Asian Development Bank, with representatives from ADB, Government of Andhra Pradesh, NCDC, UNITAID, Swasti Health Catalyst, and other partner institutions.

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Sri O. Anand, I.A.S.
District Collector & District Magistrate,
Ananthapuramu District,
Government of Andhra Pradesh.

Preface

Ananthapuramu district is highly vulnerable to extreme heat due to its arid climate, water stress, and prolonged summers. Rising temperatures and frequent heatwave conditions pose serious risks to public health, livelihoods, and essential services, especially for vulnerable populations such as children, elderly persons, pregnant women, outdoor workers, and those with existing illnesses.

The District Heat Action Plan has been developed as a coordinated framework to strengthen preparedness, response, and resilience to extreme heat. What makes this plan unique is that it has been prepared with the support and participation of all key line departments, making it a truly collaborative and district-wide effort. This shared ownership is critical to ensuring effective implementation across sectors.

The Plan has been prepared by Swasti, with the support and active inputs of the District Disaster Management Authority, the District Medical & Health Department, and other line departments of the district administration. The district administration appreciates the collaborative efforts of all departments and partners involved in the development of this Plan.

This plan is also distinctive in its health-rooted approach, placing public health at the centre of heat action. It recognizes heat not only as an environmental challenge, but as a serious health risk requiring coordinated action across health, water, labour, education, local governance, and disaster management systems. To the best of our knowledge, this is the first health-rooted district Heat Action Plan in Andhra Pradesh.

I appreciate the contribution of all departments and stakeholders involved in preparing this plan. I urge all concerned to implement it in letter and spirit so that together we can protect lives, strengthen systems, and build a more heat-resilient Ananthapuramu.

23/05/2026.

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Executive Summary

Ananthapuramu, located in the drought-prone Rayalaseema region of Andhra Pradesh, is one of India's most heat-stressed districts. The region faces rising temperatures, prolonged dry spells, recurrent droughts, and declining green cover, leading to increased heat exposure, water scarcity, and health risks. Between 2020 and 2024, temperatures frequently exceeded 44°C, resulting in rising cases of dehydration, fatigue, and heat-related illnesses. Rapid urbanization, inadequate green infrastructure, and high outdoor occupational exposure have further compounded vulnerability, particularly among women, elderly persons, children, and those with chronic illnesses.

The Ananthapuramu District Heat Action Plan (HAP) 2026 provides a comprehensive framework to reduce heat-related risks and build long-term climate resilience. Anchored within national and state frameworks such as the NDMA Heatwave Management Guidelines, the National Programme on Climate Change and Human Health (NPCCHH), and the State Action Plan on Climate Change and Human Health (SAPCCHH), the plan aligns district governance, public health, and community preparedness under one unified strategy.

The plan envisions a heat-resilient Ananthapuramu where every person, especially the most vulnerable, can live, work, and thrive safely as temperatures rise. Its strategic objectives are to protect public health through timely diagnosis and treatment of heat-related illnesses; ensure livelihood and social protection for heat-exposed populations; promote heat-resilient infrastructure and urban design; enhance environmental and ecosystem resilience through green cover and water conservation; and institutionalize strong governance and coordination across departments.

Implementation is led by the District Collector through the District Heat Action Task Force (DHATF), supported by a designated Chief Heat Officer and twenty-two line departments with defined roles and accountability mechanisms. Actions are organized across three operational phases: pre-season **(December–January)** for planning, training, infrastructure readiness, and inter-departmental coordination; during-season **(February–August)** for real-time alerts, emergency health response, and community protection; and post-season **(September–November)** for systematic review, morbidity analysis, and evidence-based plan revision.

Community engagement and risk communication are at the heart of the plan. Awareness campaigns in Telugu, wall paintings, and local media broadcasts ensure that heat advisories reach every village and urban ward. Factories, construction sites, schools, and Anganwadi centres will serve as key outreach points for hydration, rest, and safety messaging.

The plan also places strong emphasis on capacity building and institutional learning. Annual training of trainers, cascaded block-level sessions, and refresher programs ensure that health staff, community workers, and field officers are equipped to identify, report, and manage heat-related illnesses effectively. Simulation exercises and cross-sectoral mock drills strengthen on-ground preparedness and coordination between departments such as Health, Disaster Management, and Municipal Administration. This systematic training structure creates a continuous cycle of learning and readiness across seasons.

A robust monitoring, evaluation, and learning framework supports the implementation of the Heat Action Plan. It integrates real-time reporting systems, weekly situation analyses, and departmental heat response logbooks to ensure accountability and data-driven decision-making. Post-season evaluations capture community feedback, document best practices such as SHG-led hydration kiosks and school awareness programs, and inform evidence-based revisions to the plan. This continuous learning loop institutionalizes a culture of preparedness, ensuring stronger coordination, reduced morbidity and mortality, and improved resilience of communities and systems against extreme heat in the coming years.

Background and Rationale

India's climate is shifting. Temperatures are rising, extreme heat is more frequent, and heatwaves have become a recurring seasonal hazard. Nights are warming too, giving the body less time to recover. In Andhra Pradesh, and particularly in Ananthapuramu, these changes are felt through longer summers, delayed monsoons, and higher peak temperatures.

In Rayalaseema, where semi-arid conditions and water scarcity are longstanding challenges, extreme heat compounds existing hardships by increasing the risk of heat stress and dehydration, straining power and water systems, and driving a rise in heat-related illness. When not identified and treated early, heat illness can deteriorate rapidly and affect vital organs. Those most at risk include older adults, young children, pregnant women, people with chronic conditions, and outdoor workers.

This District Heat Action Plan for Ananthapuramu is the district and state administration's coordinated response, and the first health-rooted district-level Heat Action Plan in the state of Andhra Pradesh. It shifts the district from a reactive stance to a proactive cycle of preparedness, prevention, and continuous improvement. Historically, departmental action has been triggered only when a heatwave is officially declared by IMD, often too late, fragmented, and implemented in silos without cross-departmental coordination. Given Ananthapuramu's hot, water-stressed geography, the district cannot rely on declarations alone. Preparedness must begin well before peak summer, so that early warnings, water and power contingencies, workplace protections, community outreach, and health system readiness all come together in time.

This plan guides early, coordinated action to reduce heat-related illnesses and deaths by acting earlier in the season, strengthening health system readiness, improving risk communication in Telugu and other local languages, and ensuring that protective measures reach those who need them most before heat becomes a crisis. By treating heat as a public health priority and not only a disaster management concern, the plan builds readiness across health facilities, frontline workers, referral pathways, and surveillance systems.

The plan aligns with and operationalizes existing national and state frameworks, bringing them together for district-level implementation. It translates policy into coordinated ground-level action by clarifying roles, triggers, and workflows across departments, with community protection and health outcomes as the measure of success.

In practice, it functions as a platform for convergence, connecting health with disaster management, water and sanitation, labour, urban development, education, and women and child development, so that warnings, water access, workplace protections, vulnerable group outreach, and community messaging operate as one coherent response. Actions are planned before summer, activated during peak heat, and reviewed after the season to drive continuous improvement. Through this approach, the district aims to build long-term resilience so that each summer, more people are prepared, fewer fall sick, and systems are better equipped to protect lives.

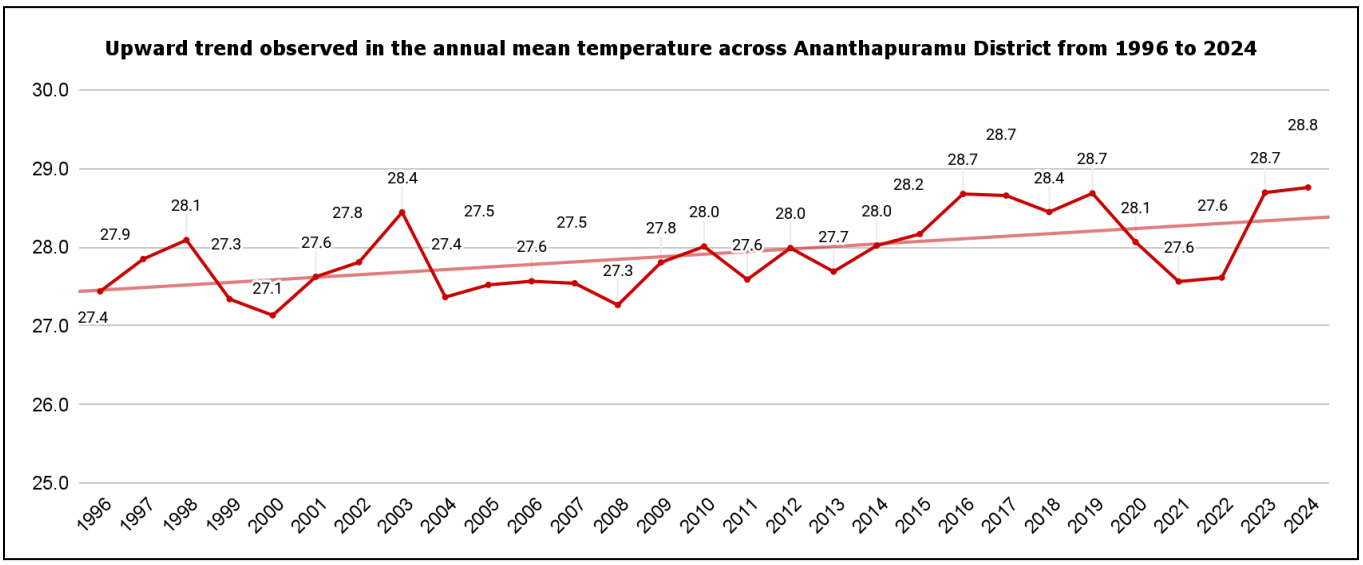
Heat Risk Assessment

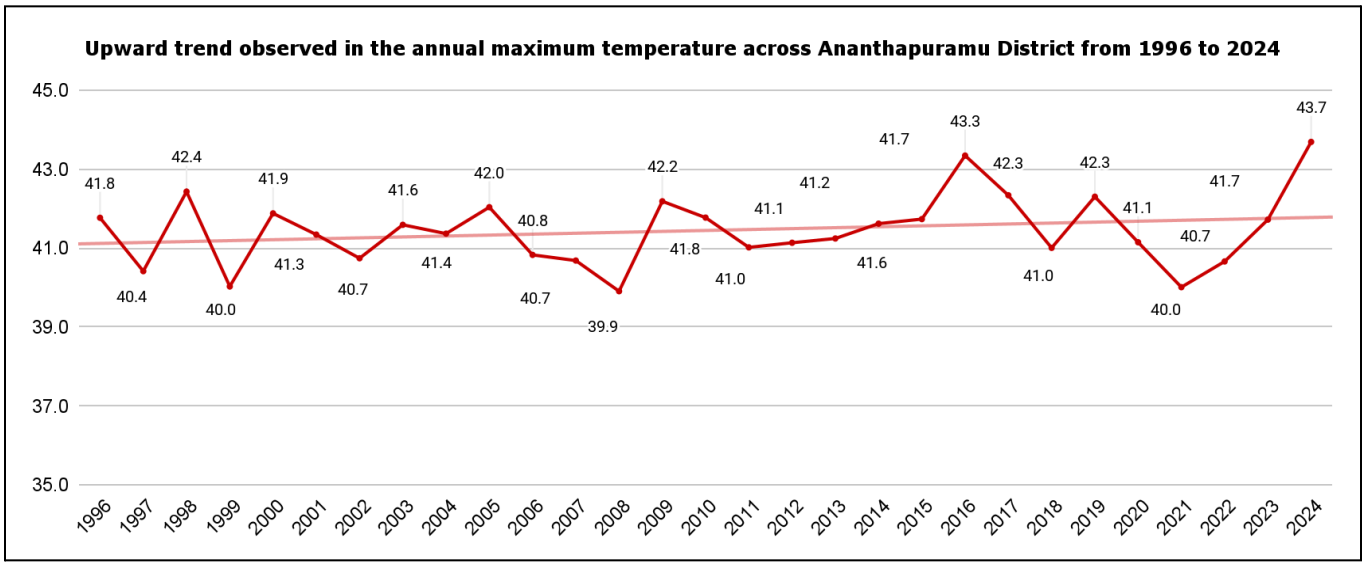
Ananthapuramu's heat stress profile is shaped by its geography, water economy, and the way people live and work across the district. Located in the heart of the Rayalaseema region, the district spans a largely semi-arid landscape with low rainfall and high dependence on rainfed agriculture. Rocky terrain, sparse vegetation, and degraded soils reduce natural cooling and allow heat to build up on the land surface, radiating back into settlements and expanding urban areas, including Ananthapuramu city.

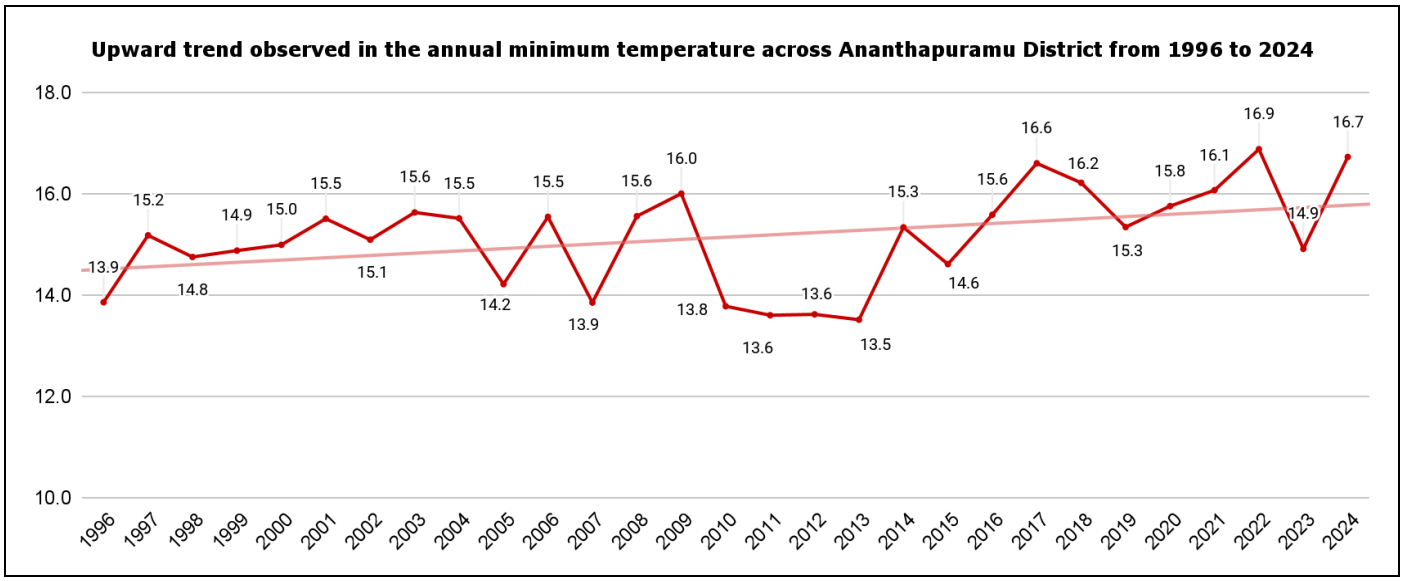
Worsening Heat Exposure

Long-term data confirm that the district has warmed steadily over the past three decades, with average maximum temperatures rising by more than 1.4°C since 1990, consistent with observed warming trends across the Rayalaseema region.

Temperature trends were analysed using ERA5 hourly reanalysis data from the European Centre for Medium-Range Weather Forecasts (ECMWF), accessed and processed through Google Earth Engine for the period 1996–2025, and supplemented with IMD sub-district station data for ground-level validation.







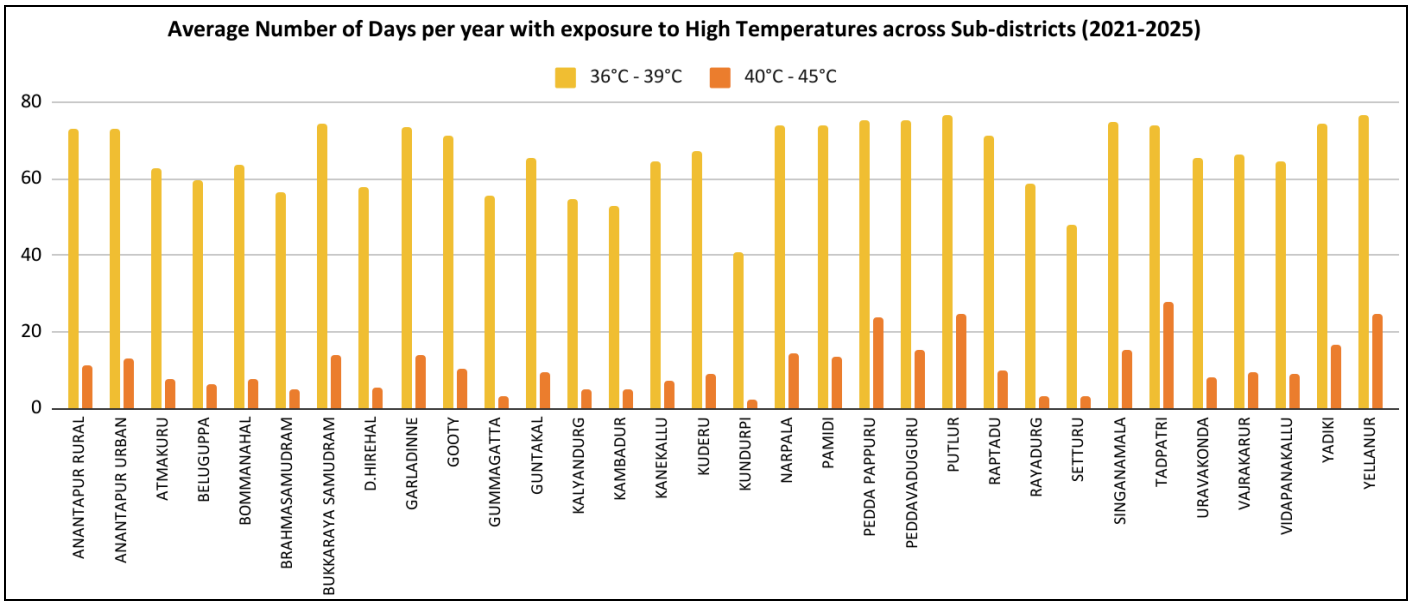
Source: Authors' analysis

Comparing the decade 2014-2024 against 2003-2013, the average annual mean temperature increased by approximately 0.6°C, driven primarily by a 1.2°C rise in minimum temperatures and a 0.5°C rise in maximum temperatures. This indicates that the region has become noticeably warmer over the past decade, with the biggest increase seen in minimum temperatures, suggesting that previously cooler periods are now warming more rapidly. Climate projections further indicate an additional warming of 1.2–1.3°C in India's mean temperature by mid-century under a moderate emissions scenario (SSP2-4.5), suggesting that this trend will continue and accelerate (Dhara et al., 2025). For a district already experiencing prolonged heat seasons, this trajectory demands immediate and sustained institutional action.

Furthermore, over 30 years of simulations reveal that Ananthapuramu regularly experiences maximum temperatures exceeding 32°C from February through October, with the hottest month, May, often seeing temperatures climb above 40°C (Meteoblue). In the event of a delayed or weak monsoon, this persistence of extreme heat for more than eight months of the year necessitates a robust and continuous response strategy as there is very little recovery time for people and systems .

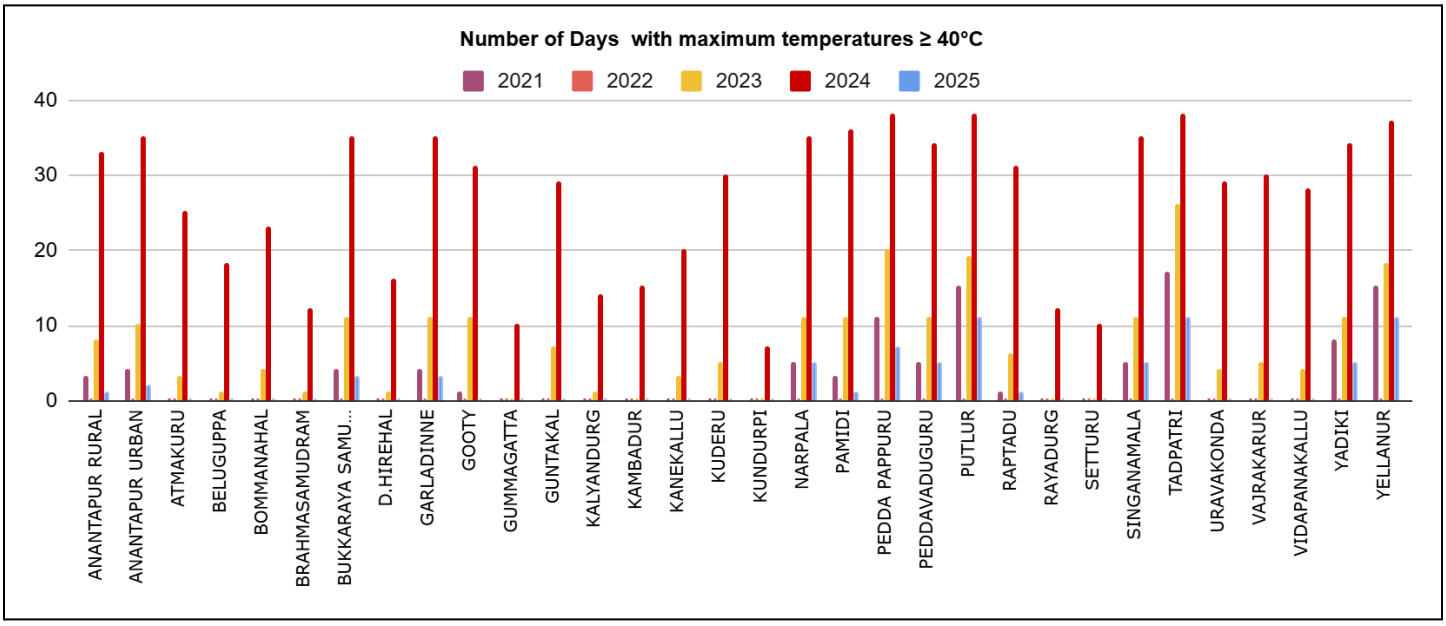
Analysis of IMD sub-district temperature data for 2021-2025 shows the scale of exposure across the district. Most mandals experience 50-80 days per year with maximum temperatures between 36°C and 39°C. Days with temperatures in the 40-45°C range, while fewer, are consistently observed across the district, averaging 10 to 25 days per year in several mandals.

Scientific evidence indicates that heat-related mortality risk increases when daily maximum temperatures exceed 36.2°C, and rises sharply beyond 40.5°C, with each additional degree above 36.2°C associated with a 2% increase in mortality risk. (Dutta, A. et al. 2020) Repeated days above 36.2 °C are therefore a significant public-health concern because this temperature range marks the point at which mortality risk begins to rise; sustained exposure places the body under cumulative physiological stress, increasing the likelihood of dehydration and progressive heat-related illnesses from heat exhaustion to heat stroke, which can rapidly become fatal and lead to acute kidney injury and multi-organ dysfunction, particularly when high nighttime temperatures prevent adequate physiological recovery.



Source: Authors' analysis

2024 was the most severe year in recent records. Nearly all mandals experienced prolonged extreme heat, several recorded 30-38 days with temperatures at or above 40°C. Mandals such as Peddapappur, Peddavaduguru, Tadpatri, Singanamala, Pamidi, Putlur, Yellanur, Narpala, Bukkuraya Samudram, Garladine, Yadiki, Gooty, Ananthapuram Urban, Raptadu, Kuderu, Vajrakarur show high numbers of extreme heat days.



Source: Authors' analysis

Beyond raw temperature, the Heat Index, which reflects felt temperature accounting for humidity, provides a more reliable measure of physiological heat stress. Elevated humidity impairs the body's ability to cool itself through perspiration, significantly increasing heat strain even at moderate air temperatures. For example, an air temperature of 32°C combined with 80% relative humidity produces a Heat Index of approximately 45°C, indicating severe heat stress.

NOAA national weather service: heat index

Temperature / Relative humidity	80 °F (27 °C)	82 °F (28 °C)	84 °F (29 °C)	86 °F (30 °C)	88 °F (31 °C)	90 °F (32 °C)	92 °F (33 °C)	94 °F (34 °C)	96 °F (36 °C)	98 °F (37 °C)	100 °F (38 °C)	102 °F (39 °C)	104 °F (40 °C)	106 °F (41 °C)	108 °F (42 °C)	110 °F (43 °C)
40%	80 °F (27 °C)	81 °F (27 °C)	83 °F (28 °C)	85 °F (29 °C)	88 °F (31 °C)	91 °F (33 °C)	94 °F (34 °C)	97 °F (36 °C)	101 °F (38 °C)	105 °F (41 °C)	109 °F (43 °C)	114 °F (46 °C)	119 °F (48 °C)	124 °F (51 °C)	130 °F (54 °C)	136 °F (58 °C)
45%	80 °F (27 °C)	82 °F (28 °C)	84 °F (29 °C)	87 °F (31 °C)	89 °F (32 °C)	93 °F (34 °C)	96 °F (36 °C)	100 °F (38 °C)	104 °F (40 °C)	109 °F (43 °C)	114 °F (46 °C)	119 °F (48 °C)	124 °F (51 °C)	130 °F (54 °C)	137 °F (58 °C)	
50%	81 °F (27 °C)	83 °F (28 °C)	85 °F (29 °C)	88 °F (31 °C)	91 °F (33 °C)	95 °F (35 °C)	99 °F (37 °C)	103 °F (39 °C)	108 °F (42 °C)	113 °F (45 °C)	118 °F (48 °C)	124 °F (51 °C)	131 °F (55 °C)	137 °F (58 °C)		
55%	81 °F (27 °C)	84 °F (29 °C)	86 °F (30 °C)	89 °F (32 °C)	93 °F (34 °C)	97 °F (36 °C)	101 °F (38 °C)	106 °F (41 °C)	112 °F (44 °C)	117 °F (47 °C)	124 °F (51 °C)	130 °F (54 °C)	137 °F (58 °C)			
60%	82 °F (28 °C)	84 °F (29 °C)	88 °F (31 °C)	91 °F (33 °C)	95 °F (35 °C)	100 °F (38 °C)	105 °F (41 °C)	110 °F (43 °C)	116 °F (47 °C)	123 °F (51 °C)	129 °F (54 °C)	137 °F (58 °C)				
65%	82 °F (28 °C)	85 °F (29 °C)	89 °F (32 °C)	93 °F (34 °C)	98 °F (37 °C)	103 °F (39 °C)	108 °F (42 °C)	114 °F (46 °C)	121 °F (49 °C)	128 °F (53 °C)	136 °F (58 °C)					
70%	83 °F (28 °C)	86 °F (30 °C)	90 °F (32 °C)	95 °F (35 °C)	100 °F (38 °C)	105 °F (41 °C)	112 °F (44 °C)	119 °F (48 °C)	126 °F (52 °C)	134 °F (57 °C)						
75%	84 °F (29 °C)	88 °F (31 °C)	92 °F (33 °C)	97 °F (36 °C)	103 °F (39 °C)	109 °F (43 °C)	116 °F (47 °C)	124 °F (51 °C)	132 °F (56 °C)							
80%	84 °F (29 °C)	89 °F (32 °C)	94 °F (34 °C)	100 °F (38 °C)	106 °F (41 °C)	113 °F (45 °C)	121 °F (49 °C)	129 °F (54 °C)								
85%	85 °F (29 °C)	90 °F (32 °C)	96 °F (36 °C)	102 °F (39 °C)	110 °F (43 °C)	117 °F (47 °C)	126 °F (52 °C)	135 °F (57 °C)								
90%	86 °F (30 °C)	91 °F (33 °C)	98 °F (37 °C)	105 °F (41 °C)	113 °F (45 °C)	122 °F (50 °C)	131 °F (55 °C)									
95%	86 °F (30 °C)	93 °F (34 °C)	100 °F (38 °C)	108 °F (42 °C)	117 °F (47 °C)	127 °F (53 °C)										
100%	87 °F (31 °C)	95 °F (35 °C)	103 °F (39 °C)	112 °F (44 °C)	121 °F (49 °C)	132 °F (56 °C)										

Key to colors: Caution; Extreme caution; Danger; Extreme danger

Source: National Oceanic and Atmospheric Administration

To capture the combined effect of temperature and humidity on the human body, the **Heat Index** was calculated using the **NOAA Rothfusz regression equation** based on daily maximum temperature and corresponding relative humidity. This approach provides an approximate measure of peak daytime heat stress, and helps estimate the approximate number of days populations are exposed to different levels of heat risk, which are strongly linked to adverse health outcomes

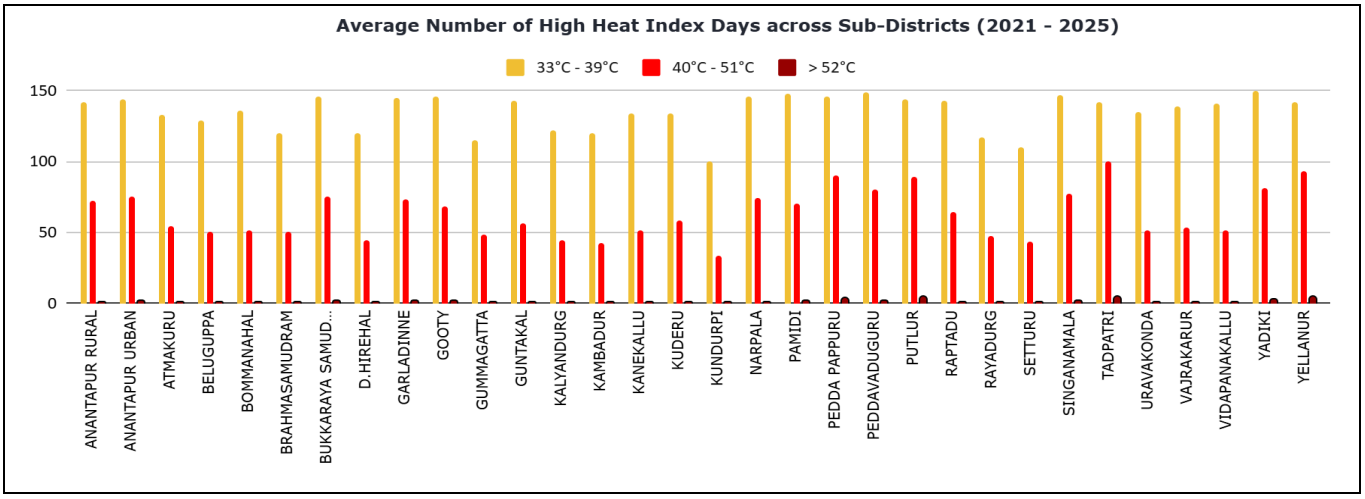
NOAA Rothfusz regression equation

Heat Index (°F) = -42.379 + 2.04901523*T + 10.14333127*RH - 0.22475541*T*RH - 0.00683783*T*T - 0.05481717*RH*RH + 0.00122874*T*T*RH + 0 .00085282*T*RH*RH - 0.00000199*T*T*RH*RH

where, T is temperature in degrees Fahrenheit and RH is relative humidity in percent.

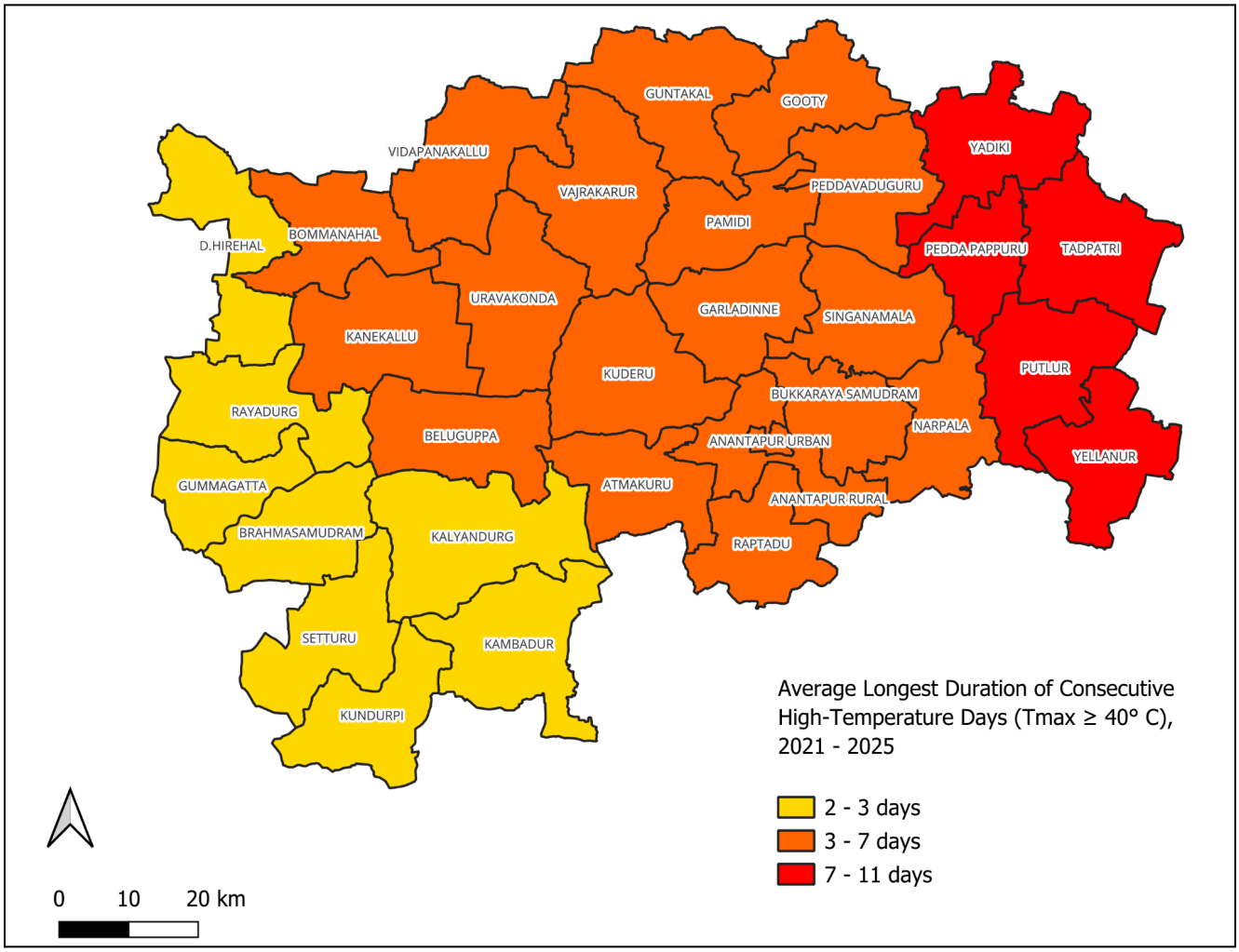
The computed heat index values were classified following NOAA thresholds to identify days associated with elevated heat stress risk, with values between 33°C - 39°C indicating extreme caution, 40°C - 51°C indicating dangerous heat stress, and values exceeding 52°C indicating extreme danger.

Analysis shows that almost all mandals experience more than 100 days per year with a Heat Index between 33°C and 39°C. Several mandals including Tadipatri, Putlur, Yadiki, Yellanur, Singanamala, and Peddapappur record a substantial number of days with a Heat Index between 40°C and 51°C, classified as dangerous. A smaller number of days exceed 52°C, representing acute, potentially life-threatening heat stress, with the highest averages in Putlur, Tadipatri, Yellanur, and Peddapappur at 4-5 such days per year.



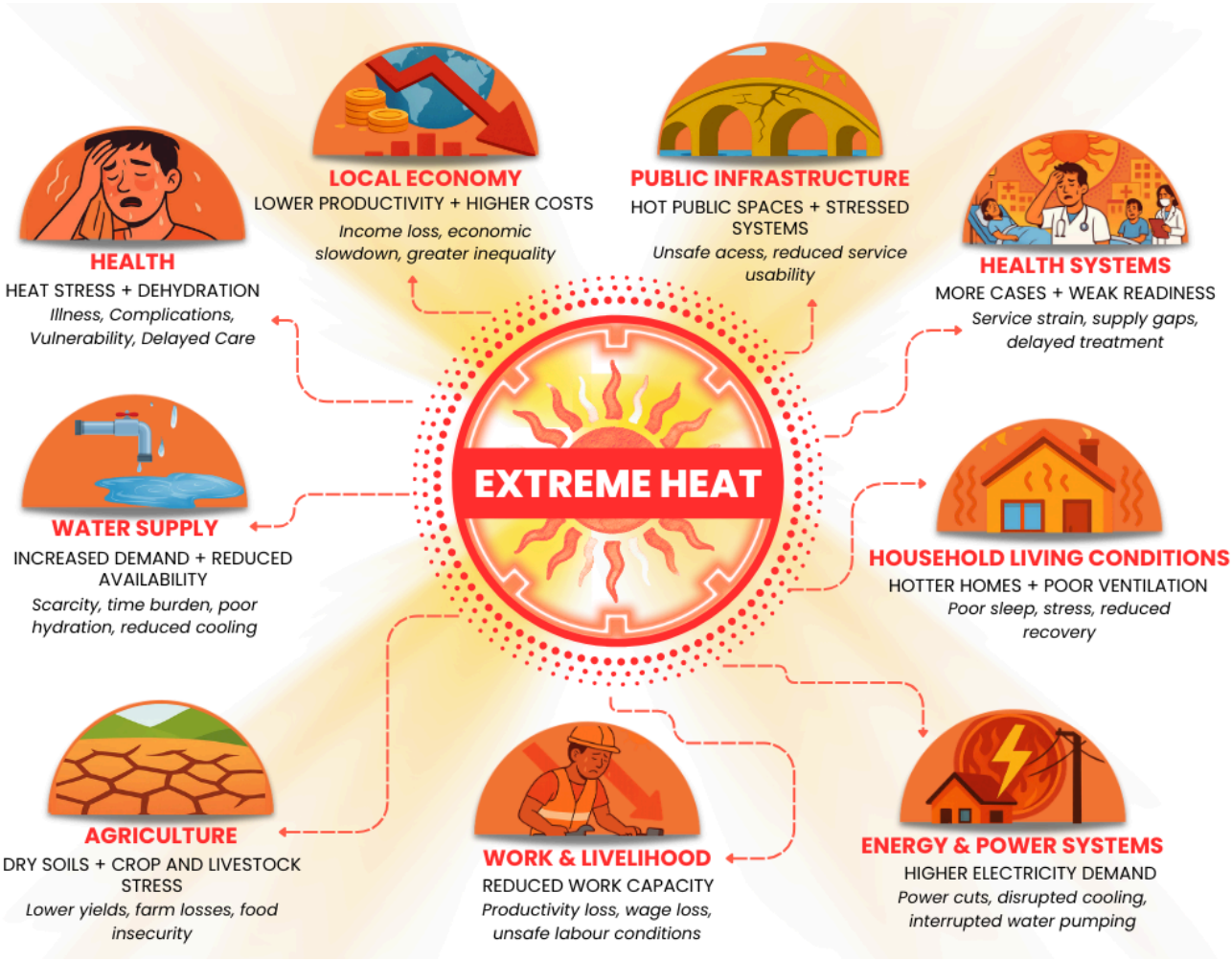
Source: Authors' analysis

The duration of uninterrupted heat is equally important. Mandals such as Tadipatri, Putlur, Yadiki, Yellanur, and Peddapappur experience the longest consecutive high-temperature spells, averaging 7-11 days. Several other mandals experience 3-7 consecutive days of extreme heat, durations sufficient to cause significant physiological stress and reduce recovery time.



Source: Authors' analysis

What Drives Risk and What Gets Impacted

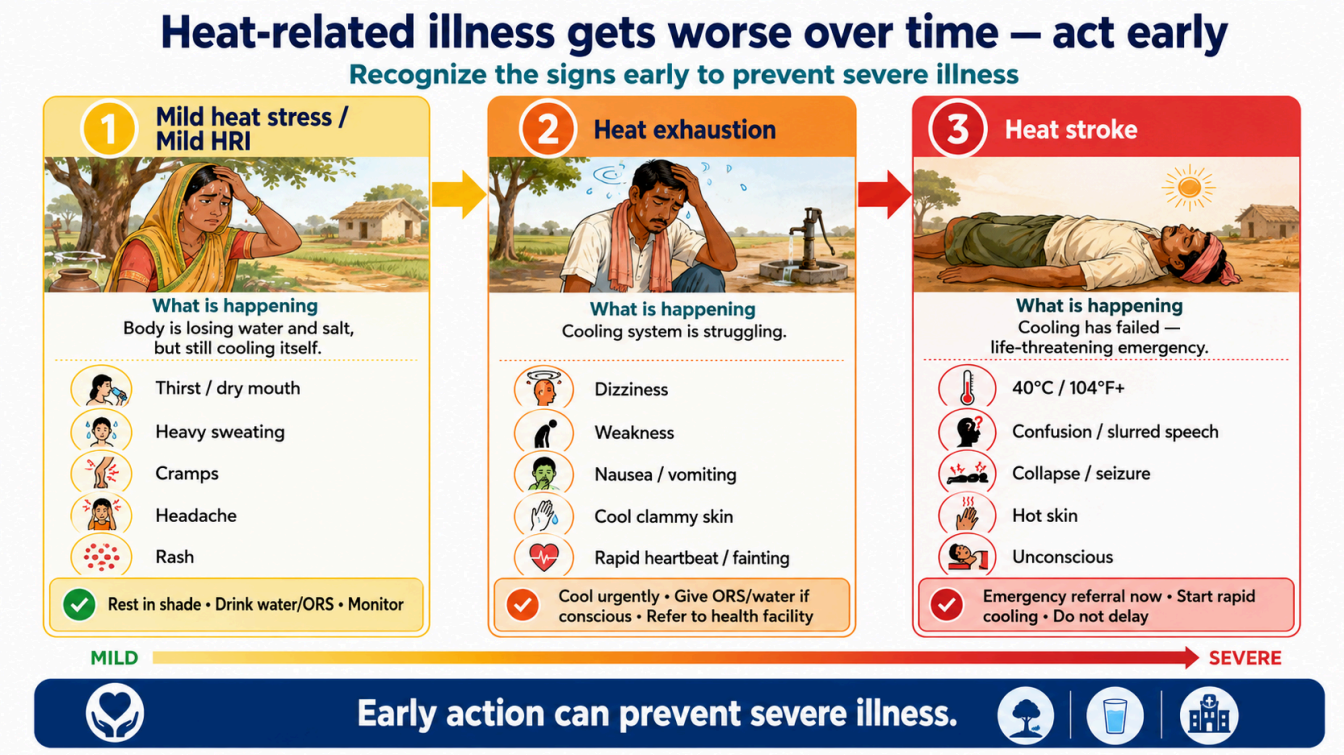


Extreme heat affects every aspect of life: health, water, livelihoods, agriculture, infrastructure, and health systems; making it a whole-of-society challenge.

Rising temperatures do not create health risks in isolation. They set off a cycle of interconnected stresses affecting daily life, livelihoods, and services. As extreme heat increases, water demand rises at the same time that local availability becomes more constrained. Lower rainfall and drought reduce soil moisture, dry soils absorb more heat, and higher land surface temperatures further deplete groundwater. This intensifies water scarcity for drinking, irrigation, and livestock, and increases dependence on pumped water precisely when summer power shortages can disrupt supply. For households, this means longer time spent fetching water, reduced ability to stay hydrated, and fewer options to cool down at home, all of which increase heat stress and the risk of heat-related illness. For the district economy, the same cycle reduces agricultural productivity and lowers work capacity for those who must continue outdoor labour through peak heat.

This burden is not evenly distributed. Heat stress manifests differently across groups. Women face longer cumulative exposure through water collection and cooking in poorly ventilated spaces. Children experience fatigue, dehydration, and disruption to schooling. Older adults and people with chronic conditions face higher risk because

heat strain can worsen existing illness and reduce the body's capacity to compensate. When heat-related illness is not recognised and managed early, it can escalate quickly and affect multiple organ systems, which is why early symptoms matter as much as hospital-level events.



Heat risk is also amplified when awareness and systems are unprepared. Where people interpret early symptoms as normal summer tiredness, timely care-seeking is delayed and heat stress accumulates into an emergency. On the supply side, inadequate cooling in health facility waiting areas, gaps in oral rehydration supplies, and power interruptions reduce the health system's capacity to respond during peak periods.

What Communities Are Already Telling Us

The meteorological data tells us temperatures are rising. But the more telling story comes from the ground. A field assessment conducted across selected blocks, captured what extreme heat actually means for the people living through it. The picture that emerges is one of communities under real and growing pressure, carrying a significant burden through each heat season with limited information, limited infrastructure, and limited support.

Heat is a daily reality, not a seasonal event

Nearly all households surveyed reported that summers have become noticeably more uncomfortable over the past three years. Most are farmers, street vendors, or daily wage labourers living in concrete homes without cooling facilities, relying on fans, and receiving electricity for 4-8 hours a day during peak summer. Over two-thirds face disruptions to water supply at the time of year when they need it most. For these households, managing heat is not something that happens once a heatwave is declared. It is something they navigate every morning from March onwards, often with limited resources and limited options.

Outdoor exposure is high and largely unavoidable. Nearly two-thirds of households have at least one member working outside through peak heat, with most exposed for the majority of their working day. Walking and cycling are the primary modes of transport. For this population, shade, rest, and hydration during work hours are often out of reach; not by choice, but by circumstance.

The toll on health and livelihoods is real and growing

Most households reported experiencing heat exhaustion directly, not just as a known risk. Dehydration and skin conditions are widespread. The mental health dimension is significant too: over 85% reported increased stress and irritability through the heat season, more than two-thirds reported persistent fatigue and loss of motivation, and over a third expressed anxiety about future heatwaves. This last finding is worth pausing on. When communities begin to fear the next summer before it arrives, it is a signal that the cumulative weight of heat has moved beyond manageable inconvenience.

The economic impact compounds the health burden. More than half of households reported income loss from reduced working hours, crop and livestock damage, and falling productivity. 15% reported temporarily migrating during peak heat. Household budgets are stretched further by rising water and electricity costs in summer, at a time when earnings are already constrained. These are not isolated hardships. They are interconnected pressures that build on each other through the season.

What communities say they need

The assessment is equally clear about where the most significant gaps lie. 74% of households had not received any information about heat alerts or warning systems. 40% did not know where to seek help or what to do when heat-related illness occurs. 87% identified access to affordable cooling solutions as their most pressing need. These are not peripheral concerns, they point directly to the areas where coordinated district action can make the greatest difference: early warning, community outreach, and basic infrastructure support at the household level.

Frontline health workers: present, committed, and ready to be strengthened

The district's frontline health workforce (ASHAs, ANMs, and AWWs) is already present in these communities and is the primary source of health information for most households. Nearly all frontline workers surveyed reported integrating climate-sensitive health issues into their daily practice, and heat-related illness was the most commonly reported health concern across all cadres, with the highest burden concentrated in the March to May window.

However, the assessment points to a clear training gap that needs to be addressed. Fewer than one-third of workers could identify all key symptoms of heat-related illness, and confidence in classifying severity, identifying at-risk populations, and knowing what action to take remained below 70% across all cadres. This is not a reflection of worker commitment, it is a consequence of the absence of structured, consistent training on heat and health. Closing this gap is one of the most direct investments the district can make in its heat response.

Across all that the assessment found the physical toll, the economic strain, the coping strategies already in place, and the support that communities say would help most, one message comes through clearly. The foundations for an effective heat response already exist in Ananthapuramu: in the resilience of communities, in the presence and commitment of frontline workers, and in the growing awareness at every level that heat is a serious and escalating risk. What this plan aims to do is connect those foundations, fill the gaps that communities have identified, and ensure that the support, information, and systems needed to protect people are in place before the heat season begins, not after it has already taken a toll.

Ananthapuramu District Heat Action Plan

Vision: A heat-resilient Ananthapuramu where every person, especially the most vulnerable can live, work, and thrive safely, even as temperatures rise.

Mission: To protect the health and well-being of all residents of Ananthapuramu by reducing heat-related illness and death through early action, coordinated systems, and targeted support for those most at risk ensuring that no summer catches the district unprepared.

Strategic Objectives

To achieve this vision, the Ananthapuramu District Heat Action Plan is organised around six interconnected objectives spanning health, livelihoods, infrastructure, ecosystems, energy, and governance.

Objective	Goal
Protect and Promote Public Health	Strengthen the health system to prevent, identify, and manage heat-related illnesses.
Ensure Heat-Sensitive Livelihoods and Social Protection	Safeguard workers and vulnerable communities from occupational and livelihood disruptions caused by extreme heat.
Strengthen Infrastructure and Urban Planning	Embed heat-adaptation principles into district planning and public infrastructure.
Enhance Environmental and Ecosystem Resilience	Use natural and sustainable solutions to reduce district-level heat vulnerability.
Promote Energy Efficiency and Climate-Smart Cooling	Ensure sustainable and reliable cooling for homes, workplaces, and health facilities.
Integrate Health into Governance and Coordination	Embed heat resilience in governance through strong inter-departmental coordination and accountability.

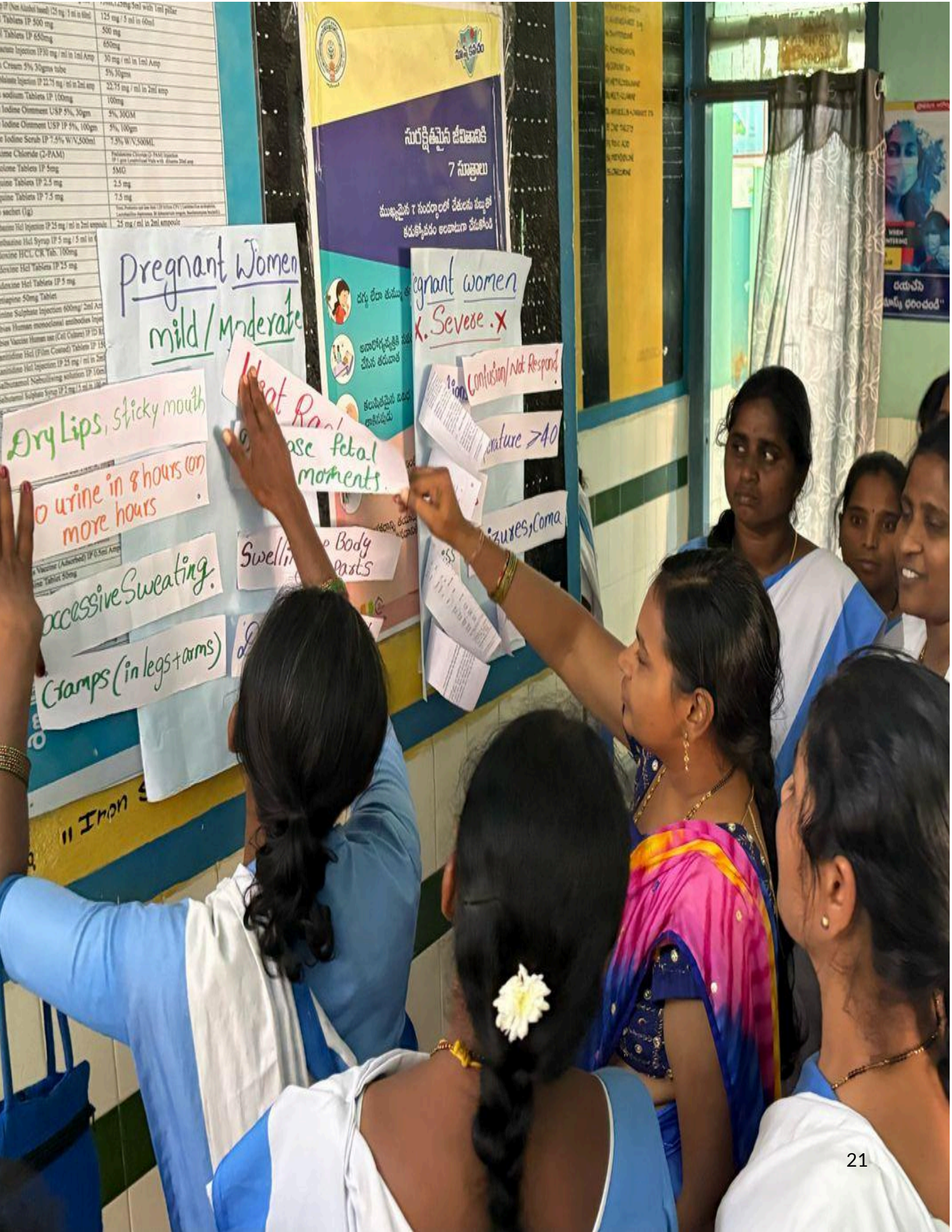
Scope of the District Heat Action Plan

The Ananthapuramu District Heat Action Plan adopts a district-wide, health-centered, and equity-focused approach to address the growing risks of extreme heat across diverse geographies and populations. Recognizing that the district experiences prolonged dry seasons, high solar radiation, and frequent temperature spikes exceeding 43°C, the plan emphasizes proactive risk reduction through health preparedness, system strengthening, and community resilience.

Focus Area	Context and Key Vulnerabilities
Urban Areas	➜ High-density built-up zones intensify the urban heat island effect. ➜ Poor ventilation and tin/asbestos roof housing and overcrowding increase indoor heat stress. ➜ Limited shaded public spaces, green cover, and water points. ➜ Irregular water supply and power outages disrupt cooling access and coping capacity, especially for urban poor, migrants and other low-income households.

Focus Area	Context and Key Vulnerabilities
Rural Areas	➜ Outdoor workers (farmers, MGNREGA, daily wage laborers) exposed to direct sunlight. ➜ Water scarcity and groundwater depletion increase physical stress, especially on women. ➜ Poor housing materials trap indoor heat. ➜ Limited healthcare access delays treatment of heat illnesses. ➜ Irregular water supply and power outages disrupt cooling access and coping capacity.
Vulnerable Populations	➜ Elderly: Reduced thermoregulation, chronic diseases, medication-related heat sensitivity, social isolation. ➜ Infants/Children: High dehydration risk due to immature thermoregulation and dependence on caregivers. ➜ Pregnant women: Increased metabolic heat load and dehydration risk. ➜ People with chronic illness: Heat exacerbates chronic illnesses like NCDs, Medications impair hydration and thermoregulation. ➜ Persons with disabilities: Accessibility barriers. ➜ Low-income, migrant, and homeless populations: Inadequate shelter, water access, awareness and services.
Occupational Exposure	➜ Outdoor workers: Construction, agriculture, street vending, sanitation, police, fire department, frontline health workers, delivery services ➜ Migrant workers: Often lack formal work protections. ➜ Public service workers: Exposed during peak hours. ➜ Industrial & informal sector: Poor ventilation, limited rest breaks.
Cross-Cutting Areas	➜ Gendered workload and caregiving increase women's vulnerability. ➜ Marginalized groups have limited adaptive capacity. ➜ Weak data systems for heat illness surveillance. ➜ Limited community awareness and coordination.

This plan is designed to protect every resident of Ananthapuramu through the heat season with focused and prioritised action for those who carry the greatest risk. This includes outdoor workers who cannot step away from the heat, older adults and young children whose bodies are least able to cope, pregnant women and people managing chronic illness, and low-income households with the least access to cooling, water, and timely care. It also recognises the health workers, teachers, sanitation staff, and community volunteers who serve these populations through the hottest months of the year, and who need the tools, training, and institutional support to do so safely and effectively.


Pregnant Women
mild / Moderate
Dry Lips, sticky mouth
o urine in 8 hours (or) more hours
ccessive Sweating.
Cramps (in legs+arms)
Pregnant women
X. Severe .X
Body
Iron

Institutional Framework And Governance

Effective heat preparedness and response requires more than departmental effort, it requires a shared system with clear leadership, defined roles, and the accountability to act before heat becomes a crisis. The Ananthapuramu District Heat Action Plan establishes a multi-sectoral governance mechanism led by the District Collector, designed to ensure that planning, coordination, and implementation happen in an integrated and timely manner across all relevant departments.

The framework aligns with the National Disaster Management Authority Guidelines on Heatwave Management (2023), the National Programme on Climate Change and Human Health, and the State Action Plan on Climate Change and Human Health of Andhra Pradesh (2024), ensuring coherence from the national level down to the community.

Alignment with National and State Frameworks

The governance model is anchored in existing national and state frameworks, ensuring policy coherence and enabling the district to draw on established guidance, reporting systems, and resources.

Framework	Key Focus Areas	District Integration
NDMA Guidelines on Heatwave Management (2023)	Prevention, preparedness, mitigation, and post-heatwave recovery	District Heat Action Plan operationalizes these through localised alerts, sectoral protocols, and rapid response systems.
NPCCHH Operational Framework (2024)	Surveillance of heat-related illness (HRI) and capacity building	District Medical & Health Office integrates HRI data into HIS; CHWs trained under CCCP use NPCCHH checklists.
SAPCCHH Andhra Pradesh (2024)	State-level coordination and local implementation	District Heat Action Task Force (DHATF) functions as the district arm of SAPCCHH, ensuring compliance with state reporting formats.
National Health Mission (NHM)	Strengthening health systems and convergence	Heat-health preparedness integrated into NHM annual PIPs and facility readiness indicators.

This alignment ensures that local actions in Ananthapuramu contribute directly to national heat-health adaptation goals under SDG 3 (Good Health and Well-Being) and SDG 13 (Climate Action).

Leadership and Institutional Arrangement

The District Collector serves as Chairperson of the District Heat Action Task Force (DHATF), providing strategic direction, approving resource allocation, and ensuring cross-departmental coordination throughout the heat season.

The Chief Heat Officer

A defining feature of the Ananthapuramu District Heat Action Plan and a first for the state is the formal designation of a Chief Heat Officer(CHO). The District Programme Manager, Disaster Management (APSDMA) will be the designated Chief Heat Officer for the district.

The CHO serves as the operational nerve centre of the district's heat response. This role exists to ensure that heat preparedness does not fall between departmental mandates, that there is always one accountable, empowered individual driving coordination, tracking implementation, and maintaining the connections between the district, the state, and the communities most at risk.

The CHO is responsible for activating and coordinating all heat preparedness and response activities across departments, maintaining continuous liaison with APSDMA and IMD for forecast-based action, convening and operationally leading the DHATF, and ensuring that early warnings, field updates, and inter-departmental progress are tracked and acted upon in real time.

Roles and Responsibilities

Each department plays a defined role in the district's heat response. The structure below reflects the official departmental focal points confirmed by the District Administration.

Department	Key Responsibilities
Disaster Management (APSDMA)	Serve as the nodal coordination agency; Chief Heat Officer to activate alerts, convene DHATF meetings, and ensure multi-sectoral response; maintain coordination with IMD, NDMA, and APSDMA.
District Collectorate	Chair the DHATF, approve inter-departmental coordination and communication plans; oversee implementation and resource mobilization.
Health (DM&HO, DCHS, DNO)	Coordinate health system preparedness; ensure availability of emergency care, cooling rooms, IV fluids, ORS, and heat stroke medicines; train CHWs, doctors, and facility staff; manage surveillance through HIS/IDSP platforms.
Municipal Administration & Rural Development (RD & PR)	Set up and maintain public cooling shelters, drinking water kiosks, and shaded waiting areas; enforce waste and drainage management to minimize urban heat islands.
Education	Implement school safety advisories during red/orange alerts; modify school timings; organize student sensitization sessions on heat prevention.
Women Development & Child Welfare (WDCW)	Safeguard pregnant and lactating women and children at Anganwadis; ensure hydration and shade; integrate heat alerts into ICDS daily routine.
Water Resource Department (MI, HLC, HNSS, Groundwater)	Monitor and manage water availability; activate contingency plans for tanker supply; prevent depletion and ensure equitable distribution across mandals.
Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries	Issue advisories on heat-resilient cropping, livestock hydration, and fodder management; ensure dissemination to farmers via Rythu Bharosa Kendras and local media.
Labour Department	Enforce work-hour adjustments, ensure provision of shaded rest areas and drinking water for outdoor workers under the Occupational Safety Guidelines.
Public Health, RWS, and Civil Supplies	Maintain drinking water safety and distribution; ensure access to essential commodities during high heat periods, with appropriate safety measures, crowd management, .
Electricity Department	Prevent power outages during peak summer; ensure backup at hospitals, cooling centers, and water stations.
Transport (APSRTC)	Ensure driver safety; modify schedules to avoid peak afternoon travel; ensure functioning fans and water availability in buses.
Public Relations Department	Coordinate risk communication, IEC dissemination, and public advisories in Telugu and English across print, radio, and digital media.

Department	Key Responsibilities
Police & Fire Services	Support emergency response and evacuation during severe heat events; ensure water availability at police outposts and fire stations.
NIC (National Informatics Centre)	Support digital dissemination of heat alerts and integration of real-time temperature updates on the district portal.

Comprehensive phase-wise responsibilities for all departments covering pre-season, during-season, and post-season actions are detailed in the subsequent sections of this plan.

Phase-Wise Implementation

The plan operates across three distinct phases, each corresponding to specific seasonal conditions and operational priorities.

The Pre-Heat Season phase, running from December to January, focuses on planning, inter-departmental coordination, capacity building, and infrastructure readiness before the onset of extreme heat. The During Heat Season phase, from February to August, encompasses real-time response to IMD alerts, activation of departmental protocols, public communication, and continuous health surveillance. The Post-Heat Season phase, from September to November, involves systematic review of district performance, morbidity and mortality assessment, and integration of lessons learned to strengthen the plan for the following year.

This phased structure ensures that the district is never starting from zero each season builds on the last, and preparedness is treated as a continuous, year-round commitment rather than a summer-only response.

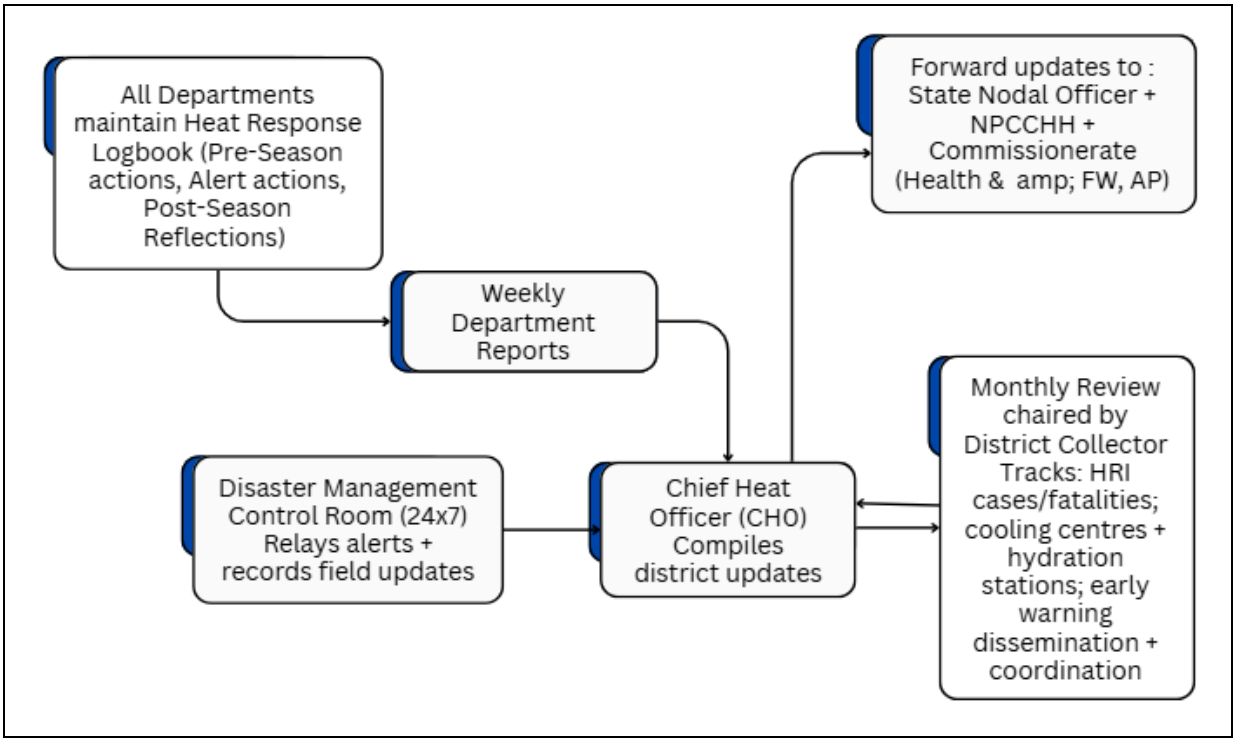
Accountability Framework

Clear accountability is what distinguishes a plan that is implemented from one that sits on a shelf. The governance structure of the Ananthapuramu District Heat Action Plan is designed to ensure that every department knows what it is responsible for, that progress is tracked consistently, and that the district learns and improves after every heat season.

Each department will maintain a Heat Response Logbook documenting pre-season preparedness, actions taken during alerts, and post-season reflections. Weekly reports will be submitted to the Chief Heat Officer, who will compile and forward district updates to the State Nodal Officer, NPCCHH, and the Commissionerate of Health and Family Welfare, Andhra Pradesh.

Monthly review meetings chaired by the District Collector will monitor three core indicators: the number of heat-related illness cases and fatalities reported, the functionality of cooling centres and hydration stations, and the status of early warning dissemination and inter-departmental coordination.

The Disaster Management Control Room will operate round the clock during the heat season, serving as the central point for relaying alerts, recording field updates, and supporting real-time coordination across departments. Post-season reports will be prepared by the Chief Heat Officer and submitted to inform the State Heat Action Review, ensuring that Ananthapuramu's experience contributes to learning at the state level.



Institutional Reporting and Accountability Framework for Heat Response

District Heat Response at a Glance

This table presents the District Heat Action Task Force and District Collector level actions across the three phases of the heat season. Detailed departmental responsibilities are presented in the subsequent table.

	Pre-Heat Season	During Heat Season	Post-Heat Season
Timeline	December to January	February to August	September to November
Actions	• Conduct risk assessment and identify high-risk areas and populations • Convene pre-summer coordination meetings with all concerned departments • Advocate for budgetary allocations for heat-health infrastructure • Identify and set up cooling shelters and drinking water points across high-risk areas • Build capacity of frontline workers, emergency	• Activate the District Heat Emergency Response Plan on receipt of IMD alerts • Coordinate with IMD to track forecasts and disseminate graded warnings (Yellow, Orange, Red) via SMS, WhatsApp, radio, and public announcements • Activate cooling shelters and drinking water points in high-risk mandals • Monitor and coordinate treatment of heat-related illness cases across health facilities • Enforce workplace heat	• Convene a post-season review meeting with all line departments and stakeholders • Analyse heat-related morbidity, mortality, and service performance data for the season • Document lessons learned to inform revision of the District Heat Action Plan • Publish an Annual Heat Risk and Response Report covering health indicators and infrastructure

	Pre-Heat Season	During Heat Season	Post-Heat Season
	responders, and municipal staff before the heat season • Oversee development and dissemination of IEC materials in Telugu across schools, media, and communities • Establish partnerships with NGOs, academic institutions, and private sector for heat resilience • Integrate cool roofs, tree plantation, and reflective pavements into departmental urban plans	safety norms- modified hours, water breaks, and shaded rest areas for outdoor workers • Monitor water availability and arrange emergency tanker supply where needed • Deploy community teams to reach vulnerable groups: older adults, pregnant women, young children, and informal workers • Ensure uninterrupted power to hospitals and water pumping stations • Maintain public communication through the District Information Office and local media throughout the heat season	performance • Advocate for integration of heat resilience into urban planning, labour, agriculture, and public health policy • Facilitate adoption of nature-based solutions: tree cover, water conservation, and heat-resilient design • Engage state, national, and global partners to strengthen heat resilience financing for the district • Circulate the updated District HAP to all departments for the next heat season

Phase-Wise Responsibilities by Department

This table sets out the specific actions expected of each department across the three phases of the heat season. Department heads and designated focal points should use this table alongside the Heat Response Logbook to plan, track, and report their activities.

Department	Disaster Management
Pre Season	☐ Heat waves should be included in the annual disaster event / calendar, preparedness and response measures should be planned accordingly. ☐ Develop comprehensive heatwave response plans. ☐ Coordinate with other departments for resource allocation, such as funds for rapid response. ☐ Conduct community awareness programs on heatwave preparedness. ☐ Ensure fire safety preparedness in public spaces by conducting fire audits, maintaining safety equipment, clearing evacuation routes, prohibiting basement combustibles, and updating electrical load audits ☐ Review preparedness and mitigation measures.
During Season	☐ Activate emergency response mechanisms: Mobilize disaster response teams, enforce heat emergency protocols, and coordinate evacuation for high-risk populations. ☐ Coordinate relief efforts and resource distribution. ☐ Provide real-time updates to the public and stakeholders.
Post Season	☐ Assess the effectiveness of response strategies. ☐ Revise emergency plans based on feedback. ☐ Document lessons learned for future preparedness.

Department	Health
Pre Season	☐ Review the DAPCCHH checklist (annexure) ☐ Develop a dissemination plan (annexure) and disseminate heat-related health advisories and guidelines. ☐ Train healthcare professionals and staff on heat-related illness recognition and treatment. ☐ Dedicate heat stroke rooms/beds across all health facilities (annexure). ☐ Plan air conditioned wards for management of GE and HRI cases across health facilities. ☐ Stock and ensure availability of ORS, ice packs, IV fluids, and essential medicines. ☐ Plan for establishment of ORS corners. ☐ Define treatment protocols for health facilities ☐ Prepare paramedics and ambulances for heat-related illnesses, including cold packs and hydration kits. ☐ Conduct public awareness campaigns on health safety during extreme heat. ☐ Identify & map vulnerable individuals (elderly, disabled, homeless) ☐ Equip Anganwadis, PHCs, and schools with cooling fans & hydration kits. ☐ Identify routes to high-risk areas and to reach vulnerable sections of population in the shortest time possible by utilizing the list of high-risk areas.

During Season	☐ Daily monitoring and reporting of heat-related illnesses.(annexure) ☐ 24/7 Heatwave Emergency Helpline, integrated with 108 emergency services ☐ Ambulance services heightened in high-risk areas ☐ Disseminate public health advisories and warnings. ☐ Operate cooling centres in health facility waiting areas and primary health centers across the district. ☐ Set up first aid camps in public places. ☐ Deploy emergency mobile health teams to high-risk areas. ☐ Deploy Rapid Response Units (RRUs), ready to transport and treat heatstroke patients. ☐ Prioritize the vulnerable groups for proactive check-ups. ☐ Keep emergency and air conditioned wards ready in all health facilities. ☐ Death investigation for suspected heat stroke deaths
Post Season	☐ Evaluate health outcomes and response effectiveness. ☐ Conduct post-season follow-up of HRI cases to assess sequelae ☐ Update medical protocols based on lessons learned. ☐ Perform an epidemiological case review of Heat-related mortalities during the summer. ☐ Conduct and gather epidemiological outcomes from the data on Heat risk factors, illness and death, based on average daily temperatures. ☐ Measure mortality and morbidity rates based on data before and after the Plan's interventions.

Department	Meteorology
Pre Season	☐ Strengthen early warning systems by linking them with local CBOs and NGOs for wider community awareness and outreach. ☐ Collaborate with the media to disseminate heat advisories.
During Season	☐ Provide real-time weather updates and warnings. ☐ Analyze temperature trends and anomalies. ☐ Advise other departments based on weather forecasts.
Post Season	☐ Analyze heatwave trends and forecasting accuracy. ☐ Update models based on recent data. ☐ Publish reports on seasonal weather patterns and future predictions.

Department	Water Resource
Pre Season	☐ Ensure adequate and equitable water supply and storage. ☐ Install hydration stations at critical public places (bus stops, schools, markets, railway stations). ☐ Promote public water conservation practices such as groundwater recharge and rainwater harvesting. ☐ Repair / Maintenance of mechanical / electrical fault of tube wells, jorhat, ponds on priority basis to ensure water storage.
During Season	☐ Monitor water usage and manage supply to critical areas, including deploying water tankers. ☐ Address water shortages promptly. ☐ Monitor water quality and prevent contamination due to extreme heat. ☐ Implement misting and fogging systems in high-traffic zones.
Post Season	☐ Review water management strategies. ☐ Plan for infrastructure improvements. ☐ Analyze data to predict future water needs during heatwaves.

Department	Education

Pre Season	☐ Develop a heat safety curriculum for schools. ☐ Train teachers and staff on heat-related illnesses and emergency protocols. ☐ Ensure that school infrastructure supports adaptation (e.g., shaded areas and cool rooms). ☐ Rescheduling of school timings, examinations and vacation as per the Heatwave situation
During Season	☐ Implement heat safety measures in schools (e.g., adjusted school hours and hydration breaks). ☐ Distribute ORS & hydration supplies to schools. ☐ Monitor student and teacher health for heat-related illnesses. ☐ Communicate with parents about heat safety. ☐ If school is not functioning, permit use of school premises as shelter during day time
Post Season	☐ Review and update school heat policies. ☐ Gather feedback from schools on heat response effectiveness. ☐ Analyze absenteeism due to heat waves. ☐ Plan infrastructure improvements for better heat resilience.

Department	Transport
Pre Season	☐ Assess and improve infrastructure to withstand extreme heat. ☐ Develop heat action plans for public transportation systems. ☐ Modify peak-hour schedules for vulnerable commuters. ☐ Train staff on heat emergency protocols. ☐ Provide hydration stations with water, ORS ice packets. etc in major transit areas.
During Season	☐ Monitor transportation systems for heat-related issues. ☐ Monitor heat stress among drivers and passengers. ☐ Implement measures like increased ventilation or cooling in public transport and waiting areas. ☐ Implement cooling breaks for long-distance drivers. ☐ Provide public advisories on safe travel during heat waves. ☐ Display of precautionary measures (Do's and don'ts) on busses, autos, in bus stations & auto stands ☐ Ensure availability of shade / shelters, drinking water, ORS packets etc., in bus stands, auto stands etc.
Post Season	☐ Review infrastructure performance during heat waves. ☐ Plan for necessary upgrades or repairs. ☐ Update emergency protocols based on recent experiences.

Department	Labour and Social Welfare
Pre Season	☐ Develop guidelines for worker safety during heat waves. ☐ Implement worker protection policies (shade, hydration breaks, PPE). ☐ Educate employers and workers on heat-related risks and prevention. ☐ Distribute cooling gear (hats, umbrellas) where needed. ☐ Preparing a list of factory medical officers, contractors and house side non-factory workers to include in Heat alert and action communication. ☐ Heat illness orientation planning for factory medical officers.

During Season	☐ Monitor workplaces for compliance with heat safety regulations, including display of posters on heat illness prevention within all work premises. ☐ Create awareness among employees on measures to prevent heat-related illnesses, including recognition of early symptoms and appropriate response. ☐ Provide support to vulnerable populations (e.g., outdoor workers, factory workers, homeless) by distributing cooling kits (ORS, hats, cloths), and identify at-risk individuals for targeted interventions. ☐ Implement measures to reduce indoor heat stress, such as watering of surroundings, use of window shades, fans, and ensuring adequate cross-ventilation at workplaces and worker accommodations. ☐ Take all possible measures for the wellbeing of migrant workers, ensuring strict compliance with all provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979. ☐ Provide immediate first aid and prompt referral for affected workers. ☐ Enforce heatwave protocols, including work-hour adjustments, rescheduling of strenuous tasks, and provision of frequent breaks with access to hydration and shade. ☐ Coordinate with the Health department and ensure regular health checkup of the workers.
Post Season	☐ Assess the effectiveness of worker protection measures. ☐ Update labour policies based on feedback. ☐ Plan long-term strategies to protect vulnerable populations.

Department	Municipal Bodies
Pre Season	☐ Develop and implement heat reduction measures such as cool roofs, increased green cover, shaded public spaces, and water body restoration. ☐ Plan for the operation of cooling centres. ☐ Engage communities in heat preparedness initiatives. ☐ Develop green and shaded corridors along roads, bus stops, markets and public spaces. ☐ Capacity building of Structural engineers, civil engineers and architects for construction of green building, maintenance and fire safety of the structures ☐ Special care in restricting outdoor activities and functions during Heat period.
During Season	☐ Operate and manage cooling centers and shaded areas in high-risk locations and high-footfall areas. ☐ Ensure public facilities are accessible and safe during heat waves. ☐ Distribute ORS and other hydrating drinks to prevent heat-related illnesses. ☐ All non-essential uses of water (other than drinking, keeping cool) may be suspended, if necessary.
Post Season	☐ Review effectiveness of urban heat adaptation measures. ☐ Plan for infrastructure improvements. ☐ Expand green infrastructure & heat-reflective urban surfaces. ☐ Engage with communities to gather feedback and improve future responses.

Department	Information Technology, Electronics and Communications
Pre Season	☐ Integrate automated systems to push heat alerts (SMS, bulk messages, mobile app notifications) ☐ Establish the district-level Heatwave Data Dashboards for real-time monitoring
During Season	☐ Activate dash board ☐ Provide technical support for public awareness campaigns, including multimedia content—audio announcements, social media graphics, and Facebook/WhatsApp advisories. ☐ Send real time information through dash board/ interface on all activities related to Heat wave.

Post Season	☐ Prepare a technical evaluation report on system functioning: delays, successes, failures, and areas for improvement in alert delivery. ☐ Update and optimize the alerting systems and dashboards ahead of the next heat season, addressing any identified gaps.

Department	Information and Public Relations
Pre Season	☐ Identification of areas to post warnings and information during Heat wave season ☐ Coordinate with core departments to design heat safety awareness materials in local language to disseminate through various media channels, including print, radio, television, and social media.
During Season	☐ Disseminate IMD-issued heat wave warnings in real time via SMS, WhatsApp, email blasts, apps, and display boards. ☐ Utilize local radio and FM broadcasts to disseminate Heat protection tips and high temperature warnings to the vulnerable sections of populations. . ☐ Using social media like Twitter, Facebook etc. to increase outreach of the messages.
Post Season	☐ Evaluate reach of advertising / public messages and other means of communication like social media (face book, twitter etc.) to target groups.

Department	Women and Child Development
Pre Season	☐ Train Anganwadi Workers (AWWs) on heat-related illness symptoms and first response, ☐ Develop and distribute heat safety IEC materials targeting pregnant women, lactating mothers, and caregivers on heat safety and HRI prevention. ☐ Stock hydration kits, ORS, and cooling supplies in Anganwadi Centres in high-risk areas. ☐ Demonstrate correct usage of ORS for mothers and caregivers. ☐ Identify and update list of high-risk beneficiaries (pregnant women, infants, undernourished children) for proactive support. ☐ Prepare Anganwadi centres for summer by ensuring adequate ventilation, shade, functional fans and hydration.
During Season	☐ Conduct awareness sessions for mothers during spot feeding sessions and caregivers on cooling diets, hydration, protective measures and recognizing heat stress in children. ☐ Follow hourly water consumption schedules at AWCss using a water bell or reminders. ☐ Monitor Anganwadi children and pregnant/lactating women for early signs of dehydration or heat illness. Refer severe cases to nearby health facilities and maintain coordination with local PHCs. ☐ Use AWW home visits and mothers' group meetings to share daily heat alerts and safety tips.
Post Season	☐ Participate in review meetings to assess service delivery and identify gaps. ☐ Collect feedback from AWWs and beneficiaries on heat response effectiveness. ☐ Document community-level learnings and traditional coping practices for inclusion in future plans. ☐ Support integration of heat resilience into child and maternal welfare schemes.

Department	Roads and Building
Pre Season	☐ Plan use of heat-resistant materials (like reflective coatings or cool paving) in upcoming road projects, especially in high-temperature mandals. ☐ Install shade structures (e.g., tree-lined stretches, bus stops with roofing) on roads frequently used by pedestrians and commuters

During Season	☐ Modify work schedules for road construction and maintenance workers to avoid peak heat hours. ☐ Ensure hydration points and shaded rest areas are available at active work sites. ☐ Coordinate with Disaster Management to ensure water tankers or misting systems are placed along high-use roads, if needed.
Post Season	☐ Document lessons learnt and recommend upgrades.

Department	Planning
Pre Season	☐ Integrate heat-health priorities into District Development Plans, Departmental Annual Plans, and Mission Convergence frameworks. ☐ Facilitate budget alignment for departments implementing heat-related interventions (e.g., Health, Social Welfare, R&B) ☐ Ensure data systems for tracking heat-related health outcomes are included in the district's M&E plan. ☐ Convene inter-departmental planning sessions to align seasonal preparedness efforts.
During Season	☐ Track implementation progress across departments (via HAP indicators). ☐ Flag any resource or coordination gaps to the District Heat Task Force for corrective action. ☐ Support real-time data reviews on heat-related illnesses, infrastructure status, and outreach coverage.
Post Season	☐ Lead the interdepartmental review of HAP effectiveness, identifying cross-sectoral gaps and lessons. ☐ Facilitate the update of district indicators and targets based on season outcomes. ☐ Support the development of a Heat-Health Resilience Roadmap as part of medium-term district planning. ☐ Document and share best practices with the State Planning Department and other districts.

Department	Forest
Pre Season	☐ Identify heat-prone "hot spots" for targeted tree plantation. ☐ Select and prepare drought-resistant native species suitable for Ananthapuramu's dry climate. ☐ Provide technical guidance and saplings to other departments such as Health, Tribal Welfare, Social Welfare, and Education. ☐ Mobilize Committees to plan greening and shade-providing plantations. ☐ Maintain water bodies in the forest area for wild animals and birds ☐ Coordinate with the Transport Department and Road Construction department for Plantation of trees at roadside, barren land and other areas.
During Season	☐ Ensure monitoring and basic maintenance (watering, mulching) of plantations near rural public institutions. ☐ Conduct awareness campaigns on the cooling and health benefits of trees. ☐ Assist local bodies in reporting or replacing failed or dried plantations.
Post Season	☐ Plan for plantation drives in uncovered or vulnerable areas identified during the heat season. ☐ Review plantation survival data and propose long-term greening strategies for climate adaptation. ☐ Document and share best practices and heat-resilient greening models with the District Heat Task Force.

Department	Electricity
Pre Season	☐ Ensure repair & maintenance work for uninterrupted power supply before and during the summer. ☐ Re-scheduling load shedding ☐ Inspect and maintain transformers, substations, and distribution lines ☐ Develop contingency plans for rapid restoration in case of power outages during heat waves.
During Season	☐ Deploy emergency repair teams for quick restoration of power outages. ☐ Prioritize uninterrupted power supply to hospitals, cooling centers, water supply systems, and emergency services. ☐ Ensure linemen safety during fieldwork: Ensure hydration, shaded rest breaks and protective clothing.
Post Season	☐ Review and document power outage incidents ☐ Upgrade distribution infrastructure in high-risk mandals

Department	Fire Service
Pre Season	☐ Check the readiness of vehicles and firefighting equipment to face any fire emergency ☐ Train local institutions (schools, hospitals, industries) in basic fire prevention and evacuation drills, integrating heatwave-related fire risks (electrical overloads, dry vegetation). ☐ Conduct fire safety audits in high-risk public places (markets, bus stands, schools, hospitals, housing colonies) to reduce fire hazards worsened by extreme heat. ☐ Develop a firefighter health preparedness plan: Stock ORS, hydration packs, and cooling gear. Plan shaded rest stations at fire stations. Train staff in heat stress identification and first aid. ☐ Mapping and listing of water sources and private water tankers within each Fire Station jurisdiction ☐ Identification of thatched huts colonies and other vulnerable settlements mandal wise.
During Season	☐ Rapid response to fire emergencies during heat waves ☐ Support hydration and misting operations at crowded places ☐ Ensure firefighter health & safety: Implement work-rest cycles during prolonged fire-fighting operations. Provide hydration breaks, cooling jackets, and shaded recovery zones at major incident sites. Monitor personnel for heat stress symptoms
Post Season	☐ Document and review all fire incidents linked to heat season, including causes and response times. ☐ Update fire safety protocols and recommend infrastructure updates for extreme heat conditions, integrating lessons learned. ☐ Document firefighter health outcomes (heat exhaustion, dehydration cases) and adjust safety protocols accordingly. ☐ Updating database of water sources, vulnerable colonies, and contact persons ☐ Maintenance and servicing of vehicles, pumps, and equipment used during heat season

Department	Agriculture and Horticulture
Pre Season	☐ Issue advisories to farmers on heat-resilient agricultural practices, including changes in sowing dates, choice of drought/heat-tolerant crop varieties, and water conservation methods. ☐ Coordinate with meteorological units to provide early warnings and advisories, and mobilize extension officers to spread awareness at the field level about protecting crops and minimizing yield losses during high temperatures. ☐ Promote short duration and Heat resisting crops

During Season	☐ Continue sharing real-time heat alerts and crop care guidance through Krishi Vigyan Kendras, farmer groups, and field staff. ☐ It will advise on modified irrigation schedules to reduce crop stress and recommend temporary protective measures such as mulching. ☐ Extension officers will monitor field conditions and report any significant heat-related crop impacts to district authorities.
Post Season	☐ Assess crop losses (if any), support damage reporting for possible compensation or insurance claims, and participate in inter-departmental review meetings. ☐ It will also collect feedback from farmers on the effectiveness of advisories and recommend long-term resilience strategies for future heat events.

Department	Factories
Pre Season	☐ Issue advisory notices to factory owners and managers on heatwave preparedness, including adjusting work schedules, ensuring shaded rest areas, and making ORS, drinking water, and first-aid available on-site. ☐ Conduct awareness sessions with factory management and safety officers to prepare for occupational heat risks.
During Season	☐ Monitor compliance with safety protocols and recommend reduced workloads during peak heat hours. ☐ It will coordinate with labor and health departments to ensure that industrial workers showing signs of heat stress receive prompt medical attention. ☐ Inspections will focus on industries with high heat exposure.
Post Season	☐ Collect data on heat-related incidents reported from factories, assess the effectiveness of mitigation measures, and incorporate learnings into updated safety guidelines. ☐ Contribute to the HAP review process by identifying gaps in occupational heat safety and suggesting long-term infrastructure or regulatory reforms.

Department	Mines and Geology
Pre Season	☐ Issue safety guidelines to mining operators to prepare for extreme heat, including instructions to adjust work schedules, ensure availability of drinking water and shaded rest areas, and train supervisors to recognize signs of heat stress among workers. ☐ Mining units will be advised to conduct mock drills and prepare emergency response plans for heat-related incidents.
During Season	☐ Mining operations will be monitored to ensure compliance with heat safety protocols. ☐ The department will encourage reduced working hours during peak heat and ensure that cooling breaks and first-aid measures are implemented at mining sites. ☐ Any incidents of heat-related illness among mine workers will be documented and referred to the Health Department.
Post Season	☐ Review safety compliance, assess any reported cases of heat-related illnesses in the mining sector, and gather feedback from site managers. ☐ Participate in HAP review meetings and suggest improvements in worker safety practices and infrastructure to build long-term heat resilience in mining operations.

Department	Animal Husbandry
Pre Season	☐ Shelter for livestock and animal husbandry should be maintained. ☐ Checking inventory of necessary medicines for treatment of cattle and poultry. Preparation of plans to provide drinking water for cattle in case of scarcity. ☐ Preparation of Posters & pamphlets with tips to take care of cattle and poultry during Heat waves. ☐ Publicity of protective measures to save cattle and poultry during Heat periods through

	District heads and Farmer Training Centers.
During Season	☐ Display posters and distribute pamphlets on the precautionary measures to be taken to safeguard cattle and poultry birds during Heat period in villages and important junctions. ☐ Ensure adequate stock of medicines in all veterinary hospitals ☐ Ensure visit of field staff during Heat wave to villages for follow up action in treatment of cattle / poultry birds.
Post Season	☐ Conduct a review of livestock morbidity and mortality during the heat season; document gaps in veterinary services, medicine supply, and outreach coverage. ☐ Revise the district Livestock Heat Contingency Plan based on lessons learned, including improved sheltering, water provisioning, and fodder management strategies. ☐ Inspect and upgrade animal shelters, watering points, and shade structures in coordination with Panchayats and local dairy cooperatives to ensure readiness for the next season

Department	Rural Development / Society for Elimination of Rural Poverty
Pre Season	☐ Mobilize SHGs, Village Organizations, and federations as Heat Champions for last-mile IEC dissemination. ☐ Identify and maintain a village-level database of vulnerable households (elderly, widows, landless laborers, migrants, disabled persons). ☐ Facilitate MGNREGS planning for water conservation works (farm ponds, soak pits, shade structures) to enhance resilience before peak heat season. ☐ Train SHG leaders and community cadres in basic heat stress first-aid, hydration support, and early warning dissemination.
During Season	☐ Operate and monitor community-run hydration kiosks, shaded cooling corners, and rest shelters in villages. ☐ Ensure safe and adapted work conditions for MGNREGS workers (revised timings, shaded rest areas, drinking water access). ☐ Provide door-to-door outreach through SHGs to check on at-risk households, especially elderly and single women. ☐ Facilitate access to emergency entitlements (pensions, food distribution, health insurance benefits) for vulnerable groups. ☐ Support livelihood continuity by promoting indoor SHG-based enterprises to reduce exposure to outdoor heat.
Post Season	☐ Conduct community-level review meetings through SHGs/VOs to capture feedback on heat adaptation measures. ☐ Document indigenous coping practices and local innovations for heat management. ☐ Share community feedback with the District Heat Action Task Force for inclusion in the next HAP cycle. ☐ Facilitate social audits and community scorecards to assess the accessibility and effectiveness of rural cooling and hydration interventions.

Department	Housing
Pre Season	☐ Incorporate heat-resilient design standards into new housing schemes (e.g., Jagananna Colonies, affordable housing projects). ☐ Promote cool roof technologies (reflective paints, white roofs, tiled roofing) in government-supported housing, especially for low-income households. ☐ Ensure housing layouts in new colonies include shaded areas, tree cover, and ventilation corridors to minimize heat islands. ☐ Facilitate retrofitting of vulnerable rural and urban houses with low-cost cooling adaptations (bamboo shades, cross-ventilation designs, roof gardens).

During Season	☐ Coordinate with PRIs and SERP to ensure that housing colonies have hydration points, shaded rest spots, and safe indoor spaces accessible during peak heat hours. ☐ Facilitate quick repairs/maintenance of roofs and ventilation structures damaged due to extreme weather conditions. ☐ Deploy housing staff to monitor indoor living conditions in vulnerable colonies (slum resettlement areas, weaker section housing).
Post Season	☐ Conduct heat resilience audits of government-built housing and resettlement colonies to identify gaps (ventilation, shading, water access). ☐ Integrate community feedback from colony residents into future housing project designs. ☐ Document and scale best practices in heat-resilient housing (cool roof retrofits, shaded courtyards, energy-efficient materials) for replication in future housing schemes. ☐ Revise housing policy guidelines to institutionalize climate-resilient design for rural and urban low-cost housing.

Stakeholder Roles

Clear roles for government, health institutions, private sector, and community groups for coordinated and comprehensive heat planning, preparedness and response.

Stakeholder	District Government
Pre Season	☐ Establish a Heat Action Task Force. ☐ Appoint a Chief Heat Officer (CHO) to oversee cross-sector coordination. ☐ Develop a district-level heat vulnerability map to identify high risk areas and vulnerable population in the district ☐ Ensure budget allocation for cooling centres, water stations, and awareness campaigns. ☐ Integrate heatwave action into urban planning.
During Season	☐ Issue graded heatwave alerts (Yellow, Orange, Red). ☐ Implement heat safety enforcement (Work-hour restrictions for outdoor workers, modified school hours). ☐ Activate cooling centers, public water stations, and mobile health units. ☐ Deploy ambulances and other services to high-risk areas.
Post Season	☐ Conduct post-season review meetings. ☐ Strengthen policy mandates (Incorporating heat risk into labor laws and housing codes. ☐ Publish heat-related morbidity/mortality reports. ☐ Update heat resilience policies based on lessons learned.

Stakeholder	Health Institutions (PHCs, District Hospitals, Private Clinics, Medical Colleges)
Pre Season	☐ Capacitate healthcare professionals in heat-related illness treatment. ☐ Develop a health professional responsibilities matrix (annexure). ☐ Stock ORS, IV fluids, and essential medicines. ☐ Establish a heatstroke surveillance system to track early warning signs. ☐ Conduct public awareness drives on recognizing heat-related symptoms.
During Season	☐ Deploy emergency response teams at health facilities. ☐ Set up temporary heat clinics in high-risk areas. ☐ Activate 24/7 heat support helplines. ☐ Prioritize vulnerable groups (elderly, pregnant women, infants) for proactive check-ups.
Post Season	☐ Analyze heatwave morbidity/mortality data ☐ Conduct review workshops for health workers. ☐ Update treatment guidelines for heat-related illnesses based on post-season evaluation

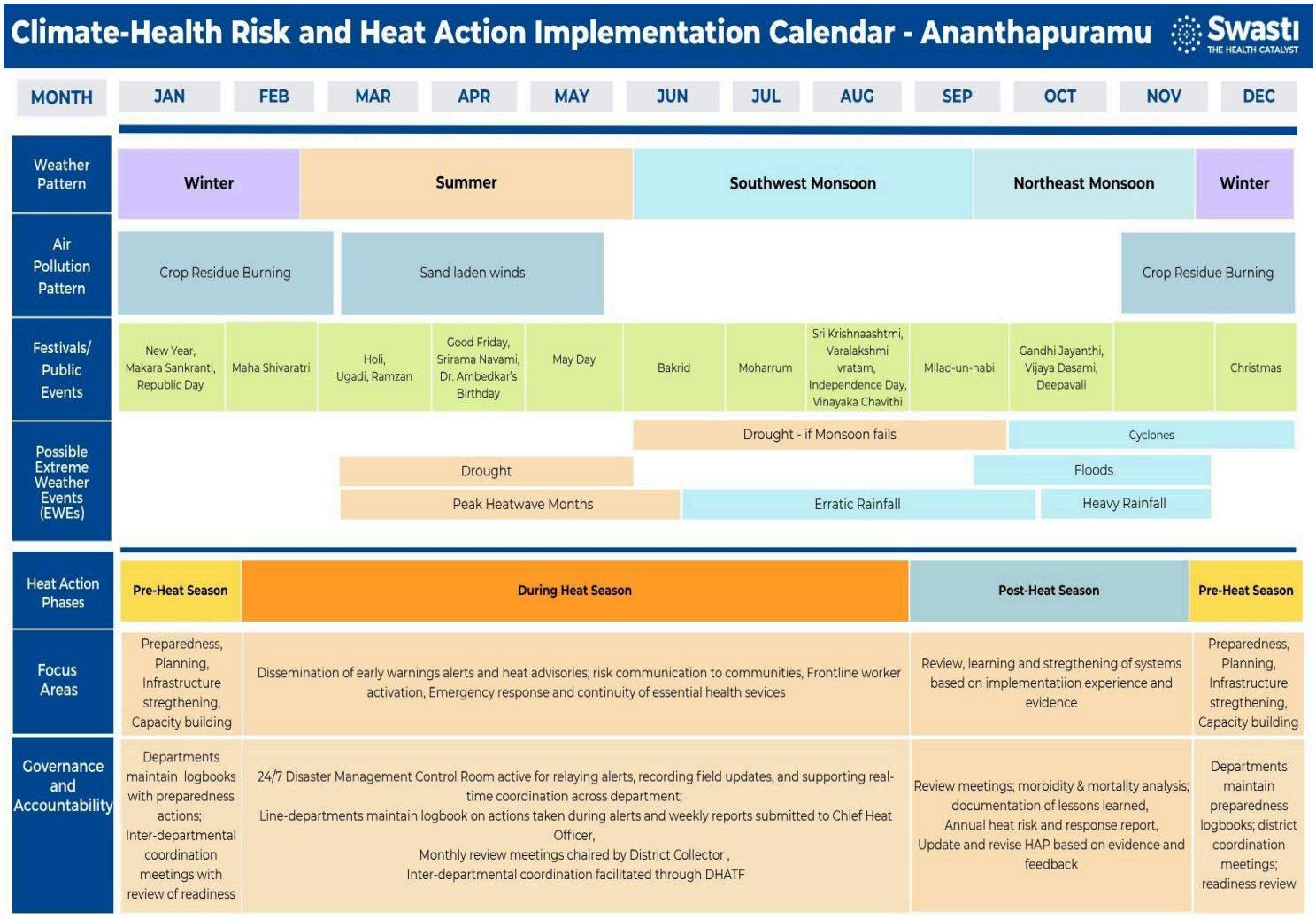
Stakeholder	Private Sector (Factories, Small Businesses, Corporates, Construction & Agriculture Industry)
Pre Season	☐ Implement worker protection policies (Hydration breaks, shaded work areas, PPE for extreme heat) ☐ Modify working hours to avoid peak heat ☐ Invest in cool roofing, green building designs, and solar-reflective surfaces ☐ Set up CSR-funded cooling stations in industrial zones
During Season	☐ Ensure hydration and shade provisions at workplaces ☐ Monitor heat-related absenteeism & worker health ☐ Activate emergency heat-relief grants for daily-wage workers
Post Season	☐ Evaluate economic losses from heat waves ☐ Develop long-term climate adaptation strategies for industries ☐ Invest in R&D for heat-resistant materials & cooling innovations

Stakeholder	CSOs/NGOs (Local And International Organizations, Advocacy Groups)
Pre Season	☐ Conduct community-based heat preparedness programs ☐ Develop heatwave IEC materials in Telugu ☐ Support government in training volunteers & frontline workers for heat response
During Season	☐ Mobilize community heat-relief networks ☐ Assist in the distribution of safe water, ORS, and cooling kits ☐ Run door-to-door awareness campaigns
Post Season	☐ Conduct impact assessments of heat interventions ☐ Document best practices for future plans ☐ Advocate for policy improvements on heat preparedness

Stakeholder	Community Groups (Resident Welfare Associations, SHGs, Farmer Groups, Local Volunteers)
Pre Season	☐ Organize community resilience planning workshops ☐ Identify at-risk individuals in neighborhoods ☐ Conduct local awareness programs ☐ Promote traditional cooling practices
During Season	☐ Check on elderly, children, and sick neighbors ☐ Help distribute cooling kits & safe drinking water ☐ Mobilize community heat watch teams to identify distress cases
Post Season	☐ Participate in post-season review meetings ☐ Contribute local feedback to improve future planning ☐ Document traditional knowledge for heat adaptation

Climate-Health risk and Heat Action Implementation Calendar

This Calendar is designed as a planning tool to support departments in anticipating, coordinating and implementing heat-related interventions in a timely and integrated manner across the year, while also accounting for competing priorities. It maps seasonal weather patterns, potential extreme weather events, key periods of heightened heat risk such as festivals and public gatherings that may increase population exposure and vulnerability. By aligning these temporal risk patterns with Heat Action Plan implementation phases, the calendar enables departments to better plan preparedness activities, strengthen responses during peak heat periods and ensure continuity of services alongside seasonal risks.



Preparedness Strategies

The Ananthapuramu District Heat Action Plan aims to prepare the district before the onset of extreme heat by improving coordination, strengthening systems, and increasing community awareness. It focuses on early warnings, trained responders, and better-equipped facilities to reduce people's exposure to heat and prevent illness. Through these measures, the plan ensures both rural and urban areas are safer and more resilient during heatwaves.

Community Awareness, Engagement & Risk Communication

Objective: To build informed, heat-resilient communities in Ananthapuramu District through sustained awareness, behavioral change, and access to timely information in local languages.

Community engagement and public awareness are central to the success of the Ananthapuramu District Heat Action Plan. The plan adopts a bottom-up, people-centered approach, empowering individuals and communities to prepare for and respond effectively to extreme heat events. It builds upon existing outreach mechanisms of the Health, Women and Child Development (WCD), Education, Rural Development, and Disaster Management departments, ensuring that heat-risk communication is simple, timely, and accessible across all population segments.
Through coordinated multi-sectoral communication, localized information materials, and active participation of community institutions, the district aims to ensure that every household receives the right guidance at the right time to prevent heat-related illnesses and fatalities.

Operational Framework

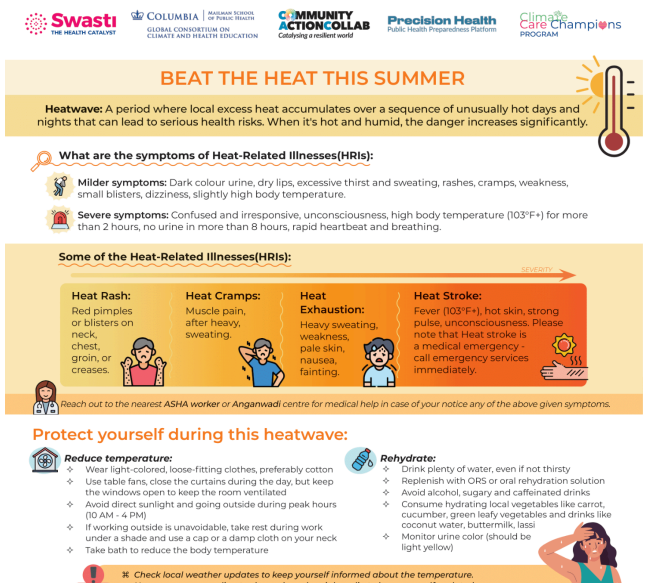
Key Component / Departmental Actions	Community Communication Channels & Outreach Tools
1. Localized IEC and Communication Materials • Health Department to lead the design and translation of IEC materials in Telugu, ensuring visual simplicity and cultural relevance. • WCD and Education Departments to distribute materials through Anganwadis and schools. • DDMA to approve a district-wide annual IEC dissemination plan and monitor reach.	• Posters, wall paintings, and flipbooks displayed at PHCs, AWCs, schools, and Panchayat offices. • Leaflets and banners distributed during health camps, school events, and public gatherings. • WhatsApp infographics and short animated videos shared through community and SHG groups.
2. Structured Seasonal Awareness Campaigns • DDMA and Health Department to coordinate district-wide pre-, during-, and post-heat season campaigns. • Conduct community rallies, health camps, and factory or school awareness sessions. • Observe National Heat Awareness Day every May with visible public engagement activities.	• Radio talk shows, local FM bulletins, and street plays in high-risk areas. • Interactive kiosks and exhibitions at public events. • Posters and banners in bus stands, markets, and educational institutions.
3. Frontline Worker & Community Heat Champion Engagement • Train ASHAs, Anganwadi Workers, MLPHs, and SHG members as "Heat Champions." • Conduct door-to-door visits to spread messages and identify vulnerable individuals. • Supply frontline workers with IEC kits, flipbooks, and hydration demonstration tools.	• Door-to-door campaigns and small group meetings. • Demonstrations on first aid and hydration practices. • WhatsApp broadcast groups for SHGs and village volunteers to circulate updated alerts.

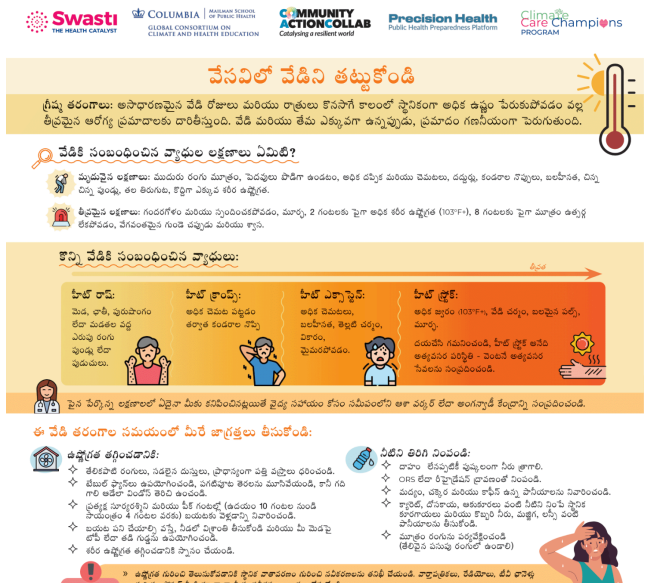
4. School & Workplace Interventions • Education Department to incorporate heat-health education into school activities and ensure shaded play areas. • Labour, Industries, and Factories Departments to enforce rest breaks, hydration facilities, and shaded areas at worksites. • Conduct annual training for teachers, factory managers, and supervisors.	• School assemblies, classroom posters, and parent messages. • Wall displays, notice boards, and loudspeaker announcements at industrial and construction sites. • Worker orientation meetings and short safety videos.
5. Decentralized Early Warning and Public Alerts • DDMA to issue color-coded alerts (Yellow, Orange, Red) based on IMD forecasts. • Coordinate with PRIs, IPRD, and Urban Local Bodies for rapid district-wide dissemination. • Ensure alignment of alerts across departments and media outlets.	• SMS and WhatsApp alerts, radio and TV announcements, and auto-dialer calls. • Loudspeaker announcements through temples, mosques, and Panchayat centres. • Public notice boards at Gram Panchayats, health centres, and markets.
6. Partnerships with Media, PRIs, and Civil Society • IPRD and DDMA to prepare and circulate press releases and official advisories. • PRIs to integrate heat preparedness in Gram Sabha agendas. • Collaborate with NGOs, CBOs, and local influencers to amplify official messages.	• Local newspaper features, FM radio jingles, and short video messages. • Social media campaigns via district and Panchayat handles. • Community dialogues, street theatre, and youth group rallies.
7. Promotion of Adaptive and Cooling Measures • Rural Development, Urban Local Bodies, and PRIs to promote cool roofs, shade structures, and drinking water kiosks. • Encourage household cooling techniques—cross-ventilation, bamboo shades, indoor plants, and wet vetiver mats. • Support Panchayat-level water conservation and greening projects.	• Demonstration sessions by SHGs and village committees. • Wall art promoting hydration and "cool home" tips. • Posters and IEC boards at markets, schools, and health facilities highlighting adaptive actions.

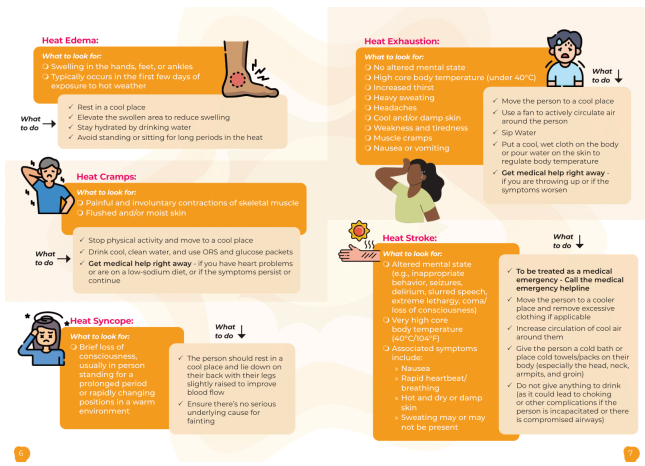
Expected Outcome

The district will establish an inclusive communication system ensuring timely, accurate, and accessible heat-risk information for all residents. Community awareness and behavioral change will increase, promoting hydration, shade, and rest practices. Frontline workers and community groups will respond faster to heat-related illnesses through improved preparedness. Coordinated messaging across departments and media will enhance trust and compliance with advisories. Overall, preventable heat-related illnesses and deaths will decline, strengthening community resilience to extreme heat.

Information, Education and Communication(IEC) Materials







Early Warning and Forecast-Based Systems

Objective: To establish a reliable, multi-tiered early warning and response system that enables the district to act before heat impacts occur.

The Ananthapuramu District Heat Action Plan builds on existing early warning mechanisms of the India Meteorological Department (IMD), the State Disaster Management Authority (SDMA), and the District Disaster Management Authority (DDMA). During the heat season, departments may continue to leverage the APSDMA **AWARE dashboard** as a common decision-support platform to access real-time and forecast-based heat risk information. The dashboard will support timely issuance of heat alerts, activation of response measures, and coordinated decision-making across departments by providing a shared situational awareness of evolving heat conditions at the district and sub-district levels. Rather than creating a new system, this plan strengthens coordination between departments and ensures that forecasts are translated into timely, easy-to-understand alerts that reach every village, town, and institution through multiple channels — WhatsApp, local FM, Gram Panchayat boards, and loudspeakers.

IMD Heatwave Alert Levels and Criteria

Alert Level	Criteria	Public Health & Safety Implications
Yellow (Be Aware)	Max temp ≥ 40°C (plains) or ≥ 37°C (coastal areas) or ≥ 30°C (hills) OR temp 4.5°C - 6.4°C above normal	Moderate heat; people at risk (elderly, children, outdoor workers) need precautions. The public is advised to stay hydrated and avoid prolonged sun exposure.
Orange (Be Prepared)	Max temp ≥ 43°C OR temp 6.5°C or more above normal	Severe heat; high risk of heat stress, dehydration, and illness. Authorities implement precautionary measures such as cooling shelters, hydration stations, and work restrictions.
Red (Take Action - Emergency)	Max temp ≥ 45°C OR temp ≥ 47°C in any area	Extreme heat; life-threatening conditions. Emergency response measures are activated. The public is urged to avoid outdoor exposure. The government enforces strict workplace and school safety measures.

Integration of Alerts into Ananthapuramu District Response

Each alert level builds upon the previous one, ensuring stronger action as the heat risk increases.

Alert Level	District Government Actions	Community Dissemination
Yellow	☐ Issue public advisories on heat safety. ☐ Ensure the availability of drinking water in public spaces. ☐ Prepare hospitals & health centres for heat-related cases.	☐ Broadcast alerts via radio, TV, newspapers, and WhatsApp groups. ☐ Local officials inform panchayats, SHGs, and community groups. ☐ NGOs distribute heat safety pamphlets & posters in Telugu.
Orange	☐ Activate hydration stations & mobile cooling shelters. ☐ Modify school & workplace schedules to reduce heat exposure. ☐ Direct health teams to monitor vulnerable populations.	☐ Announcements via temples, mosques, and local loudspeakers. ☐ ASHAs and FLWs conduct door-to-door visits to at-risk individuals. ☐ Hydration breaks & shade provisions for factory and outdoor workers.
Red	☐ Declare a heat emergency, and activate disaster response teams. ☐ Close schools, open-air markets, and non-essential outdoor workplaces. ☐ Deploy ambulances & medical relief teams in high-risk areas.	☐ Urgent SMS and auto-dialer calls are sent to the public. ☐ Emergency shelters & relief centers are operational 24/7. ☐ Police and municipal staff monitor outdoor laborers & street vendors for immediate intervention.

Community-Based Early Warning Dissemination

To ensure alerts reach every household quickly, the district administration will:

- ➜ As part of the community-based dissemination, all community-facing communication channels should disseminate real-time heat alerts to households by regularly accessing and interpreting updates from the existing early warning systems such as the publicly available APSDMA AWARE dashboard, IMD updates, etc
- ➜ Use Panchayat WhatsApp groups, village boards, and SHG networks for real-time heatwave updates.
- ➜ Send SMS notifications via DDMA to alert vulnerable populations.
- ➜ Deploy ASHAs, Anganwadi workers, MLPHs, and SHGs to conduct door-to-door awareness drives.
- ➜ Utilize loudspeaker announcements in high-risk areas.
- ➜ Provide bus stop and railway announcements for travellers during Red Alerts.
- ➜ Collaborate with factories, construction sites, and local institutions to implement worker safety alerts.

Expected Outcome

Through this strengthened coordination, the district ensures that every alert triggers **clear, rapid, and coordinated action** — reducing response delays and helping communities protect themselves before temperatures reach critical levels. This system directly supports the plan's goal of reducing heat exposure and saving lives across Ananthapuramu's rural and urban areas.

Capacity Building of Health and Frontline Workforce

Objective: To ensure that all relevant personnel — from medical officers to community health and municipal staff — are equipped with the knowledge and skills to accurately diagnose heat-related illnesses, take timely and appropriate action, and prevent avoidable complications or fatalities through coordinated, evidence-based response measures.

Building upon the foundation created through the *Climate Care Champions Program*, the District will institutionalize training as an annual capacity-building cycle across all health and allied departments. Heat-health modules will be integrated into existing training calendars under the *National Programme for Climate Change and Human Health (NPCCHH)* and *State Action Plan for Climate Change and Human Health (SAPCCHH)*.
The approach prioritizes both technical preparedness and community engagement, ensuring every trained worker can act as a local resource person for awareness and emergency response.

Key Actions

- Institutionalize Heat-Health Training: Embed climate and heat-health topics into the annual training schedule of the Health, WCD, PRIs, ULBs, and allied departments.
- Strengthen District Training Systems: Conduct annual district-level Training of Trainers (ToT), followed by cascaded mandal and block-level sessions.
- Pre-Season Refreshers: Organize refresher sessions in December–January before the onset of the heat season.
- Simulation Exercises: Conduct cross-sectoral mock drills involving Health, Disaster Management, Police, and Fire Departments to assess emergency readiness.
- Monitoring and Reporting: Maintain departmental training records, ensuring complete coverage and quality assurance.

Target Groups

- **Health Department:** Medical Officers, Community Health Officers, ANMs, ASHAs, MPHWs
- **Women & Child Development:** Anganwadi Workers
- **Municipal & Panchayat Departments:** Field Engineers, Sanitation Workers, PRI Members, Ward Volunteers
- **Education Department:** Teachers and School Management Committees

Training Curriculum

Training modules will draw from the Climate Care Champions Program (Swasti and GCCHE) and NPCCHH resources, with adaptation to the local context.

Module	Key Focus Areas
Module 1. Clinical Management	Identification, first aid, and management of heat exhaustion and heat stroke.
Module 2. Surveillance and Reporting	Case identification, classification, and reporting of HRIs under HIS .
Module 3. Community Preparedness	Early warning communication, risk messaging, and awareness generation.
Module 4. Occupational Safety	Personal protection and heat-safety measures for outdoor and industrial workers.

Training Programme and Recommended Schedule

Training Programme for	Trainers	Topics Covered	Timeline
Health Facility Level: Medical Officers (MOs) and Community Health Officers (CHOs)	District Level Trainers, DNO (Climate and Health)	• Heat-health impact and prevention measures • Surveillance, case identification, and reporting • Facility-level preparedness • Clinical management of Heat-Related Illnesses (HRIs)	February
Community Health Care Workers (MPHWs, ANMs, ASHAs)	District Level Trainers, Medical Officers	• Heat-health impact and prevention • Indoor and outdoor mitigation measures • Referral and first-aid protocols • Community communication and awareness	February – March
PRI Members and VHNSC Representatives	District Trainers, Health Staff	• Early warning systems and community preparedness • Coordination for vulnerable populations	March
Sentinel Surveillance Nodal Officers	State and District Level Trainers, DNO	• Surveillance of HRIs cases • Data collection and reporting standards	March

Training Modality

- **District-Level ToT:** Annual ToT organized by the DMHO and DDMA.
- **Cascaded Mandal-Level Trainings:** Conducted by trained health supervisors and CHWs.
- **Refresher Sessions:** Short, focused updates each February–March before the heat season.
- **Simulation Drills:** Practical exercises to test alert dissemination and inter-departmental response coordination.

Training Materials and Resources

The following materials will guide and standardize training delivery across levels:

Resource Type	Description / Content	Access Link
National Guidelines	*National Action Plan on Heat Related Illnesses (NAPHRI)* — Standard clinical and preparedness guidance for all states.	***Scan the QR code to access the link***
NPCCHH State–District Modules	Comprehensive training modules for Medical Officers, Para-Medical Staff, and Community Health Workers — with special focus on vulnerable groups (women, children, elderly, occupational workers).	***Scan the QR code to access the link***
Climate Care Champions Program Modules	Co-developed by Swasti and the Global Consortium on Climate and Health Education (GCCHE) — context-specific modules for heat-health management, frontline action, and community engagement.	***(Details available with DMHO / Swasti)***
NPCCHH YouTube Channel	Repository of webinars, video tutorials, and demonstrations on clinical management and surveillance of heat-related illnesses.	***Scan the QR code to access the link***
Other Technical Webinars	• Clinical Aspects of Heat-Related Illnesses • Surveillance and reporting protocols • Heatwave impact on public health	***Scan the QR code to access the link***

Expected Outcomes

- ➔ 100% coverage of frontline health and community workers trained on heat response and surveillance.
- ➔ Integration of heat-health training into institutional training systems at the district and state levels.
- ➔ Improved inter-departmental coordination during heat emergencies.
- ➔ Enhanced community confidence in district-level preparedness and response mechanisms.
- ➔ Establishment of a sustainable and replicable model for climate-health capacity building.

Health System Preparedness

Objective: To ensure that all health facilities—urban, rural, and mobile—remain operational, responsive, and safe during peak heat conditions, and that the health system as a whole is adequately equipped to prevent, identify, and manage heat-related illnesses (HRIs) through coordinated preparedness, surveillance, and response mechanisms.

Health system preparedness integrates infrastructure readiness, clinical capacity, data surveillance, mental health, and cross-sectoral coordination to ensure uninterrupted patient care and timely response during high-temperature periods. Preparedness is structured across three phases—Pre-Heat Season, During Heat Season, and Post-Heat Season— as per national guidance from NCDC (2024) and NPCCHH.

Scan the QR code to access the guidelines by NCDC on strengthening health system preparedness for extreme heat

Pre Heat Season	☐ Prepare a detailed action plan to tackle HRI (updated annually) with details of
	  ☐ Vulnerable population and hotspots of high heat impact
	  ☐ IEC, Training, Surveillance, Alerts, Logistics etc.
	  ☐ Funding and resources
	☐ Ensure the availability of funds for activities
	☐ Identify area, room or bed that can be used for management of HRI during heat season
	☐ Check inventories for basic equipment and medicines required for emergency and routine care of HRI
	☐ Train clinicians in diagnosis and management of Heat Stroke cases
	☐ Ensure adequate training of staff in identification, management and surveillance of HRI
	☐ Conduct sensitization meetings of stakeholders
	☐ Identify Rapid Response Team (RRT) to respond to any exigency call outside the hospitals
	☐ Ensure preparedness of ambulance
	☐ Prepare targeted IEC hoardings, banner, poster, leaflets, factsheets, information cards, media, mic announcements, rallies, song/drama activities, street plays.
	☐ Adopt long term measures such as cool roofs and improving green coverage of health facilities.

During Heat Season	☐ Make the Heat Stroke room/ward operational. Identify surge capacities and mark the beds dedicated to treat the HRI cases ☐ Review stock of adequate medical supplies ☐ Ensure IMD's heat warnings are received and staff is informed of heatwave conditions ☐ Ensure reporting and monitoring of HRI cases and deaths daily in appropriate surveillance formats ☐ Support investigation and reporting of suspected heatstroke death and maintaining line lists ☐ Adopt and display HRI treatment and prevention protocols ☐ Enhance emergency department preparedness to handle more patients ☐ Ensure IEC display and dissemination in patient area ☐ Conduct awareness sessions for vulnerable populations through increased outreach of ASHA/ANM/MPHW ☐ Organize dedicated heat corners during a heat alert, if feasible. ☐ Ensure ambulance availability with appropriate supplies

Post Heat Season	☐ Review to assess/identify gaps-if any, e.g.,
	  ☐ Any shortage of equipment, medicine, staff.
	  ☐ Any long- term measures that can be adopted and maintained
	☐ Analyze the HRI surveillance reports and revise HRI action plan accordingly
	☐ Enlist/document the lessons learnt for the next season

Roles and Responsibilities at the Primary Health Care Level

Actor	Roles and Responsibilities
District Nodal Officer (DNO)	Disseminate early warnings to block and facility levels; ensure IEC dissemination; coordinate with IMD and other departments; organize training for medical staff; analyze daily health data against temperature and humidity trends; compile and submit weekly reports to the State Nodal Officer (NPCCHH); coordinate with agencies for response and update DAPCCHH accordingly.
Block Health Officer	Conduct community IEC activities; organize PRI sensitization workshops; ensure medical officer training; and implement localized mitigation efforts.
City Health Department	Develop and implement city-specific heat-health action plans and coordinate emergency response.
Medical Officer (PHC/CHC)	Lead facility-based preparedness; conduct IEC sessions for patients; ensure readiness for diagnosis and management of HRIs; coordinate community outreach with ASHA and ANM teams.
Community Health Officer (CHO)	Conduct local awareness sessions; ensure community-level diagnostics and response; plan activities on health observance days; and coordinate with medical officers during emergencies.
Panchayati Raj Institutions (PRI) and Village Health, Nutrition, and Sanitation Committees (VHNSC)	Conduct community IEC campaigns, support outreach activities, and ensure the participation of community members during heat preparedness and response drives.

Capacity Building and Training Plan

A structured and phased training plan is covered in the previous section

Integrating Mental Well-being in Heat Response

Mental well-being is a critical component of overall health and must be addressed alongside physical risks during extreme heat events. Heatwaves can intensify emotional distress, fatigue, and anxiety—particularly among vulnerable populations and frontline workers. Prolonged exposure may also contribute to sleep disturbances, cognitive decline, and the exacerbation of pre-existing mental health conditions such as depression, anxiety, and stress-related disorders. Additionally, individuals with severe mental health conditions, including schizophrenia or bipolar disorder, may experience worsened symptoms, especially if on medications that affect thermoregulation. At the level of Primary Health Centers (PHCs) and Health and Wellness/Sub-Health Centers (HWCs/SHCs), mental health support should not be treated as a standalone service. Instead, it should be integrated into routine healthcare delivery, community outreach, and information, education, and communication (IEC) activities. Embedding mental health into these everyday functions ensures that emotional resilience is actively promoted and sustained as part of the local health system's ongoing response to heat-related stress.

Time Period	Key Actions for Mental Well-being
Pre-Season	☐ Train FLWs on psychosocial first aid and mental health signs during heatwaves ☐ Prepare simple, localized IEC materials (posters, WhatsApp videos, jingles) with mental well-being messages ☐ Update village-level lists of high-risk individuals, including those with chronic mental well-being illnesses ☐ Set up cooling corners in community buildings with calming visuals and rest tips ☐ Share mental well-being helpline numbers with FLWs and display them in facilities and registers (e.g., Tele-MANAS: 14416) ☐ Build FLW peer support mechanisms (e.g., WhatsApp groups)
During Heat Season	☐ Disseminate mental well-being messages via home visits, local media, and community meetings ☐ Encourage hydration, rest, and reassurance during household visits ☐ Monitor emotional well-being: mood, fatigue, sleep disruption, confusion ☐ Use cooling corners for informal peer support and rest ☐ Share mental well-being helpline discreetly with individuals in distress and encourage its use ☐ Conduct emotional check-ins and debrief sessions with FLWs to address stress and coping
Post-Season	☐ Collect feedback from communities and FLWs on mental well-being messaging and support mechanisms ☐ Revise IEC content based on lived experiences and feedback ☐ Follow up on referred mental well-being cases and check outcomes ☐ Assess usage and impact of cooling corners and helpline services ☐ Document community-based coping strategies for future application ☐ Reflect on FLW experiences and adjust support systems accordingly (e.g., rest breaks, shift rotation)

Expected Outcomes

- ➔ Sustained availability of life-saving emergency and clinical care during heatwaves.
- ➔ Strengthened health workforce capacity for timely identification and management of HRIs.
- ➔ Improved data-driven decision-making through integrated surveillance systems.
- ➔ Enhanced coordination between departments and community institutions for a whole-of-system response.
- ➔ Inclusion of mental health and well-being as a key pillar of health resilience during extreme heat events.
- ➔ Overall reduction in preventable heat-related illnesses and deaths across the district.


వడదెబ్బ
NATIONAL HEALTH MISSION
వేసవికాలంలో అధిక ఉష్ణోగ్రత వేడిగాలుల కారణముగా వడదెబ్బ (సన్‌స్ట్రోక్),
డీహైడ్రేషన్,సాధారణంగా వచ్చేవ్యాధులు,సరైన సమయంలో చికిత్స తీసుకోకపోతే ప్రాణాంతకమే
చేయకూడనివి
మండు వేసవిలో తీవ్ర ఉష్ణోగ్రత సమయములో ఎక్కువగా తిరగరాదు.
మద్యం సేవించరాదు.
రోడ్లమీద చల్లని రంగు పానీయాలు త్రాగరాదు
రోడ్లమీద అమ్మే కలుషిత ఆహారం తినరాదు
మాంసాహారం తగ్గించి, తాజకూరగాయల్ని ఎక్కువగా ఆహారంగా తీసుకోవాలి
వడదెబ్బగుగైన వారిని వేడినీటిలో ముంచిన గుడ్డతో తుడవరాదు.
వేసవిలో నలుపు/ముదురు రంగు దుస్తులు మంద ముగా ఉండే దుస్తులు ధరించారాదు.
చేయవలసినవి
నీరు,పళ్ళరసాలు, కొబ్బరినీళ్ళు,ద్రవపదార్థలు ఎక్కువగా తీసుకోవాలి.
రోజు కనీసం 15 గ్లాసుల నీళ్ళు త్రాగాలి.
పరిశుభ్రతకు అత్యధిక ప్రాధాన్యం ఇవ్వాలి.
శుభ్రంగా రెండుపూట్లు స్నానం చేయాలి. భోజనం మితంగా చేయాలి.
లేతవర్ణం, తేలికైయిన, కాటన్ దుస్తులు ధరించాలి.
ఎండవేళ ఇంటిపాటునే ఉండి, బయటకివెళ్ళివస్తే గొడుగు, బోపి వంటివి తీసుకొని వెళ్ళండి.
ఇంటిలో కిటికిలు తెరచి వుంచాలి, ఫ్యాన్‌వేసి చల్లగా వుంచుకోవాలి.
ఆరుబయట పడుకున్నా దోమ తెరలు వాడుకోవాలి.
ప్రథమ చికిత్స
వడదెబ్బ తగిలిన వ్యక్తిని త్వరగా నీడ గల ప్రదేశానికి చేర్చాలి.
రోజు కనీసం 15 గ్లాసుల నీళ్ళు త్రాగాలి.
ఐస్ నీటిలో ముంచిన తడిగుడ్డతో శరీరం తుడవాలి.శరీర ఉష్ణోగ్రత సాధారణ స్థాయికి వచ్చేవరకు చేస్తుండాలి.
ఫ్యాన్ గాలి /చల్లనిగాలి,తగిలేలా ఉండాలి.
ఉప్పు కలిపిన మజ్జిగ లేదా చిటికెడు ఉప్పు కలిపిన గ్లూకోజు ద్రావణం లేదా ఓరల్ రీహైడ్రేషన్ ద్రావణం (ఓ.ఆర్.యస్) త్రాగించాలి.
వడదెబ్బ తగిలిన అపస్మారక స్థితిలో ఉన్న రోగినీరు త్రాగించకూడదు.
ఆరుబయట పడుకున్నా దోమ తెరలు వాడుకోవాలి.
వైద్యాధికారి - ప్రాథమిక ఆరోగ్య కేంద్రము కూడేరు
జిల్లా వైద్య,ఆరోగ్యశాఖాధికారి అనంతపురము జిల్లా
జిల్లా కలెక్టర్ అనంతపురము జిల్లా
కమీషనర్ - ఆరోగ్య మరియు కుటుంబ సంక్షేమ శాఖ. ఆంధ్రప్రదేశ్ ప్రభుత్వము

Monitoring and Evaluation

Objective: To ensure effective implementation, accountability, and continuous improvement of the Ananthapuramu District Heat Action Plan (HAP) through structured monitoring, real-time reporting, and evidence-based decision-making.

Approach

Monitoring and Evaluation (M&E) for the HAP will follow a results-based approach, integrating process, output, and outcome indicators across departments. The District Heat Action Task Force (DHATF), chaired by the District Collector and anchored by the Chief Heat Officer (CHO), will oversee all M&E processes. Regular data collection, reporting, and review mechanisms will enable adaptive management and institutional learning for subsequent heat seasons.

Monitoring will occur at four stages:

- Pre-season preparedness review
- In-season real-time monitoring
- Post-season outcome assessment
- Annual resilience and governance review

This structured cycle ensures that lessons from each heat season inform planning and resource allocation for the subsequent year.

Thematic Monitoring Structure

The District Heat Action Plan is supported by a comprehensive thematic monitoring framework comprising 67 indicators across key domains of preparedness, response, resilience-building, and governance dimensions.
These indicators are distributed across major thematic pillars as outlined below:

Theme	No. of Indicators	Frequency	Lead Department
Governance & Preparedness	9	Annual / Seasonal	Disaster Management
Early Warning & Risk Communication	5	Event-based	IMD / DM / IPR
Health System Preparedness & Surveillance	8	Weekly / Seasonal	Health
Protection of Vulnerable Groups	6	Seasonal	WCD / Labour and Social Welfare
Occupational Heat Risk Reduction	7	Seasonal	Labour / Factories / Mines and Geology / Transport
Water Security & Hydration Support	6	Monthly	Water Resources / Municipal Bodies
Heat-Resilient Infrastructure & Cooling	5	Annual	Municipal Bodies / Roads and Buildings / Planning
Environmental & Nature-Based Solutions	5	Annual	Forest / Agriculture / Horticulture / Animal Husbandry
Energy Security & Continuity of Services	5	Monthly	Electricity Department

Community Engagement & Behaviour Change	5	Seasonal	Health / WCD / Education / IPR
Monitoring, Learning & Policy Integration	6	Annual	Planning / DDMA / Health

Detailed indicator definitions, means of verification, and departmental responsibilities are maintained at the district level to support implementation and review processes.

Monitoring Framework

Level	Monitoring Focus	Lead Department / Agency	Frequency
Input Monitoring	Resource allocation, institutional arrangements, departmental preparedness plans, vulnerability mapping, infrastructure readiness, workforce training plans, policy integration measures.	Planning Dept., APSDMA, Line Departments	Pre-Season
Process Monitoring	Interdepartmental coordination, governance actions, implementation progress, inspections and enforcement, community outreach activities and monitoring of implementation.	CHO with DHATF, Line Departments	Monthly/Seasonal
Output Monitoring	Operationalization of services including heat surveillance reporting, cooling centres, hydration support, mobile medical units, helpline services,compliance actions, greening initiatives and backup power arrangements.	Concerned Line Departments	Weekly/Monthly/Seasonal
Outcome Monitoring	Service performance and response effectiveness reflected in heat illness trends, morbidity patterns, reduction in service disruptions and behavioural adoption of heat safety measures.	Health Department & Line Departments	Weekly / Monthly / Seasonal
Impact Monitoring	Long-term resilience outcomes including mortality trends, institutional strengthening, policy integration, documentation of best practices and annual heat risk and response reports	DHATF, Planning Department & APSDMA	Annual

Detailed Indicators for monitoring

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
1	District Heat Action Task Force (DHATF) formally constituted for district-level heat action governance and coordination (Yes/No)	Existence of a district-level, multi-departmental Heat Action Task Force formally notified through a government order with defined roles and responsibilities	Process	Annual (Pre-season)	Government order, district notification	Governance, Coordination & Preparedness	Disaster Management; Planning
2	Chief Heat Officer (CHO)	Formal designation and notification of a	Process	Annual	Appointment order		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
	appointed and notified (Yes/No)	senior district official responsible for coordinating heat preparedness and response					
3	No: of DHATF meetings conducted planned v/s conducted (pre/during/post season)	Total No: of official DHATF meetings conducted to review preparedness, response actions, and post-season learning	Output	Seasonal	Meeting minutes, attendance records		
4	% line departments with designated heat focal persons	Proportion of identified line departments that have officially nominated a nodal officer for heat-related coordination	Input	Annual	Department nomination letters		
5	% departments submitting weekly heat response reports	Proportion of line departments submitting weekly updates on heat preparedness and response actions during the heat season	Output	Weekly (Heat season)	Weekly reports, email submissions		
6	Availability of approved district Heat Action Plan before heat season (Yes/No)	Presence of a formally approved district Heat Action Plan prior to the onset of the heat season	Output	Annual	Approved HAP document		
7	Budget allocated for heat action activities (₹) by GoA	Total financial allocation earmarked for heat preparedness, response, and mitigation activities	Input	Annual	Budget sanction orders		
8	% planned heat preparedness activities with in department completed before March	Proportion of planned pre-season preparedness actions completed before the start of peak heat months	Output	Pre-season	Progress tracking reports		
9	# of departments demonstrating preparedness	Number of identified line departments that meet the defined minimum heat-preparedness criteria (designated focal person, preparedness plan, SOPs in place, and key pre-season	Process	Pre-season	Department preparedness checklist, review reports, DHATF validation minutes, departmental compliance submissions		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
		actions completed) as verified through a standardized checklist before the heat season.					
10	Timeliness of IMD heat alert receipt at district level (hours)	Time taken between issuance of a heat alert by IMD and receipt at the district administration	Output	Event-based	IMD alerts, district logs	Early Warning Systems & Risk Communication	Meteorology; Disaster Management; Information Technology, Electronics and Communications; Information and Public Relations
11	% mandals receiving heat alerts within 24 hours of IMD issuance	Proportion of mandals that receive official heat alerts within 24 hours of issuance	Outcome	Event-based	Dissemination records		
12	% alerts disseminated through at least 3 channels (SMS, WhatsApp, media)	Proportion of heat alerts disseminated using three or more communication channels such as SMS, WhatsApp, media, or public announcements	Output	Event-based	SMS logs, media releases		
13	No: of heat advisories issued by Heat Nodal Officer to all line departments(Yellow/Orange/Red)	Total No: of colour-coded heat advisories issued during the heat season	Output	Seasonal	Advisory copies		
14	% villages/wards displaying heat advisories publicly	Proportion of villages or urban wards where heat advisories are visibly displayed at public locations	Output	Seasonal	Field verification reports		
15	% health facilities with designated heatstroke beds/rooms	Proportion of health facilities with designated arrangements for managing heatstroke and severe heat illness	Output	Pre-season	Facility readiness checklist	Health System Preparedness & Heat Illness Management	Health
16	% facilities with adequate ORS and IV fluid stock during heat season	Proportion of facilities maintaining adequate stocks of ORS and IV fluids during the heat season	Output	Monthly (Heat season)	Stock registers		
17	No: of health staff trained on heat-related illness management	Total No: of health personnel trained on identification, treatment, and reporting of	Output	Annual	Training attendance sheets		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
		heat-related illnesses					
18	Functionality of 24×7 heat emergency helpline (Yes/No)	Availability and continuous operation of a dedicated helpline for heat-related emergencies	Output	Seasonal	Helpline call logs		
19	No: of mobile medical units available in high-risk areas	Total No: of mobile medical units deployed in heat-vulnerable or high-risk areas	Output	Seasonal	Deployment orders		
20	No: of heat-related illness (HRI) cases reported	Total No: of reported cases of heat exhaustion, heatstroke, and other heat-related illnesses	Outcome	Weekly	HMIS / IDSP		
21	% completeness of HRI reporting in HMIS/IDSP	Proportion of health facilities consistently reporting heat-related illness data into official reporting systems	Output	Weekly	HMIS / IDSP		
22	No: of suspected heatstroke deaths investigated	Count of suspected heat-related deaths formally reviewed or investigated by health authorities	Outcome	Event-based	Death audit reports		
23	% vulnerable households mapped (elderly, PW, infants, disabled)	Proportion of households with high heat vulnerability identified and documented by the district	Output	Annual	Vulnerability mapping lists	Protection of Vulnerable Populations	Women and Child Development; Health; Labour and Social Welfare
24	No: of home visits conducted to vulnerable households	Total No: of proactive outreach visits conducted to vulnerable households during heat alerts	Output	Seasonal	Visit registers		
25	% Anganwadi centres stocked with ORS/hydration kits	Proportion of Anganwadi centres maintaining ORS or hydration supplies during the heat season	Output	Monthly	Stock records		
26	No: of cooling shelters functional during peak heat	Total No: of designated cooling shelters that are operational during extreme heat days	Output	Seasonal	Shelter status reports		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
27	2% identified vulnerable individuals receiving proactive outreach	Proportion of identified high-risk individuals contacted or supported during heat alerts	Outcome	Seasonal	Outreach records		
28	No: of referrals made for individuals at high risk of heat-related illness during heat alerts	Total referrals made for vulnerable individuals requiring medical or social support	Output	Seasonal	Referral registers		
29	% outdoor worksites with modified working hours	Proportion of outdoor worksites implementing revised working hours to avoid peak heat	Output	Seasonal	Inspection reports	Occupational Heat Risk Reduction & Livelihood Protection	Labour and Social Welfare; Factories; Mines and Geology
30	% worksites with shade, drinking water, and rest breaks	Proportion of worksites meeting minimum heat safety provisions	Output	Seasonal	Site inspection checklists		
31	No: of inspections conducted for heat safety compliance	Total inspections carried out to ensure adherence to heat safety norms	Output	Monthly	Inspection reports		
32	No: of workers provided with cooling kits	Total No: of workers receiving cooling or hydration support kits	Output	Seasonal	Distribution lists		
33	No: of heat illness cases reported among workers	Total reported cases of heat-related illness among outdoor or industrial workers	Output	Seasonal	Health facility records		
34	% factories/mines complying with heat safety advisories	Proportion of registered factories or mines complying with issued heat safety advisories	Output	Seasonal	Compliance reports		
35	% MGNREGS works following heat safety norms	Proportion of MGNREGS worksites implementing prescribed heat safety guidelines	Output	Seasonal	Worksite audits		
36	% public drinking water points functional during heat season	Proportion of public drinking water sources functioning during the heat season	Output	Monthly	Field inspection reports	Water Security & Hydration Support	Water Resource; Municipal Bodies
37	No: of hydration kiosks established at public places	Total No: of hydration kiosks established at key public locations	Output	Seasonal	Location lists		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
38	Average response time for tanker deployment (hours)	Average time taken to deploy water tankers following a supply request or complaint	Outcome	Monthly	Complaint logs		
39	No: of water shortage complaints resolved	Total No: of water scarcity complaints addressed during the heat season	Output	Monthly	Grievance records		
40	% water quality samples meeting safety standards	Proportion of tested water samples meeting prescribed safety standards	Outcome	Quarterly	Lab test reports		
41	No: of community-managed water points operational	Total No: of community-managed water points functioning during heat months	Output	Annual	Panchayat records		
42	No: of cooling centres established and operational	Total No: of cooling centres set up and functional during heat alerts	Output	Seasonal	Facility lists	Heat-Resilient Infrastructure & Spatial Planning	Municipal Bodies; Roads and Building; Planning
43	% public spaces with functional shade structures	Proportion of identified public spaces equipped with effective shade	Output	Annual	Field/GIS audits		
44	Area (sq m) covered under cool roofs / reflective surfaces	Total area retrofitted with heat-reflective or cool roofing materials	Output	Annual	Project reports		
45	No: of heat-resilient housing retrofits completed	Count of housing units upgraded to improve thermal comfort	Output	Annual	Completion certificates		
46	Inclusion of heat-resilience measures in district plans (Yes/No)	Integration of heat-resilience interventions into official district planning documents	Output	Annual	Planning documents		
47	No: of trees planted in identified heat hotspots	Total No: of trees planted in areas identified as high heat exposure zones	Output	Annual	Plantation registers	Environmental & Nature-Based Solutions	Forest; Agriculture and Horticulture; Animal Husbandry
48	Plantation survival rate after heat season (%)	Proportion of planted trees surviving after the heat season	Outcome	Annual	Field surveys		
49	No: of water bodies restored or rejuvenated	Count of ponds, lakes, or water bodies restored to improve local cooling	Output	Annual	Project reports		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
50	Length/area of green corridors developed	Total length or area of green corridors developed for heat mitigation	Output	Annual	GIS/maps		
51	% agriculture advisories promoting heat-resilient practices	Proportion of agriculture advisories including heat-adaptive practices	Output	Seasonal	Advisory records		
52	Total duration of power outages during heat season (hours)	Cumulative hours of electricity outage recorded during the heat season	Outcome	Monthly	Utility logs	Energy Security & Continuity of Essential Services	Electricity
53	% health facilities with functional backup power	Proportion of health facilities equipped with operational backup power systems	Output	Annual	Facility audits		
54	Average response time for power restoration (hours)	Average time taken to restore electricity supply after an outage	Outcome	Monthly	Complaint logs		
55	No: of heat-related power failures affecting water supply	Count of power failures that disrupted water supply services	Outcome	Event-based	Incident reports		
56	% critical facilities prioritised during load management	Proportion of essential facilities prioritised during power load regulation	Output	Seasonal	Load management plans		
57	No: of ASHAs/AWWs/SHGs trained as Heat Champions	Total frontline workers and community groups trained on heat risk reduction	Output	Annual	Training records	Community Engagement, Capacity Building & Behaviour Change	Health; Women and Child Development; Education; Information and Public Relations
58	No: of community awareness sessions conducted	Total heat awareness sessions conducted at community level	Output	Monthly	Session reports		
59	% households demonstrating key heat-protective behaviours	Proportion of households practicing recommended heat safety behaviours	Outcome	Seasonal	Household surveys		
60	No: of school-based heat safety sessions conducted	Total heat awareness sessions conducted in schools	Output	Seasonal	School reports		
61	Reach of door-to-door	Proportion of households	Output	Seasonal	Coverage reports		

.SNo	Indicators	Definition	Type	Frequency	Means of Verification	Theme	Responsible Departments
	awareness campaigns (% households)	covered through door-to-door heat awareness outreach					
62	Post-heat season review conducted (Yes/No)	Conduct of a formal district-level review after the heat season	Output	Annual	Review minutes	Monitoring, Evaluation, Learning & Policy Integration	Planning; Disaster Management; Health
63	Heat-related morbidity & mortality analysis completed (Yes/No)	Completion of analytical review of heat-related illnesses and deaths	Outcome	Annual	Analysis report		
64	No: of best practices documented	Total No: of good practices documented from heat response implementation	Output	Annual	Case studies		
65	No: of corrective actions incorporated into revised HAP	Count of improvements integrated into the revised Heat Action Plan	Outcome	Annual	Revised HAP		
66	Integration of heat resilience into sectoral policies (count)	No: of sectoral policies incorporating heat resilience measures	Outcome	Annual	Policy documents		
67	Annual Heat Risk & Response Report published (Yes/No)	Publication and dissemination of an annual district heat risk and response report	Output	Annual	Published report		

Data Flow and Reporting Mechanism

- Facility Level (Daily/Weekly): Medical Officers and CHOs submit daily heat-illness reports during Red Alerts and weekly reports otherwise through HIS formats.
- Block/Mandal Level (Weekly): Consolidated reports from PHCs, schools, Anganwadis, and PRIs submitted to the Mandal Nodal Officer and shared with DHATF.
- District Level (Monthly): The Chief Heat Officer compiles inter-departmental progress reports and presents them to the District Collector for review.
- State Level (Quarterly): DHATF submits a comprehensive situation and progress report to the State Nodal Officer, NPCCHH, and APSDMA.

All data will be integrated into a District Heat Dashboard hosted by NIC, allowing real-time tracking of alerts, departmental actions, and health indicators.

Evaluation and Learning

Evaluation Type	Purpose	Lead Agency	Timing
Mid-Season Review	Assess implementation bottlenecks during peak months (April–June) and initiate corrective measures	CHO, DHATF	June
Post-Season Evaluation	Analyze health outcomes, departmental performance, and community feedback; update HAP accordingly	Planning Dept., Health Dept., APSDMA	September
Annual Heat Resilience Review	Integrate findings into district development planning and SAPCCHH updates	DHATF, Planning Dept.	December

Learning and Feedback Loop

- Lessons from each heat season will inform revisions to departmental protocols and district preparedness checklists.
- Findings will be shared during the Annual Heat Risk and Response Review Meeting.
- Best practices and success stories (e.g., school-based awareness drives, SHG-led hydration kiosks) will be documented and disseminated across other vulnerable districts in Andhra Pradesh.

Abbreviations

AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ANM	Auxiliary Nurse Midwife
APSDMA	Andhra Pradesh State Disaster Management Authority
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
CBO	Community-Based Organization
CCCP	Climate Care Champions Program
CEEW	Council on Energy, Environment and Water
CHC	Community Health Centre
CHO	Chief Heat Officer
CSR	Corporate Social Responsibility
DAPCCHH	District Action Plan on Climate Change and Human Health
DDMA	District Disaster Management Authority
DHATF	District Heat Action Task Force
DM&HO	District Medical and Health Officer
DNO	District Nodal Officer
DNO-CC	District Nodal Officer – Climate Change
DRDO	Defence Research and Development Organisation
FM	Frequency Modulation (as in FM Radio)
GCCHE	Global Consortium on Climate and Health Education
GoAP	Government of Andhra Pradesh
GoI	Government of India
HAP	Heat Action Plan
HLC	Handri-Neeva Lift Canal
HIS	Hospital Information System
HNSS	Handri-Neeva Sujala Sravanthi
HRI	Heat-Related Illness
ICDS	Integrated Child Development Services
IDSP	Integrated Disease Surveillance Programme
IEC	Information, Education and Communication

IMD	India Meteorological Department
IPRD	Information and Public Relations Department
IV	Intravenous
M&E	Monitoring and Evaluation
MGNREGA / MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Act / Scheme
MLHP	Mid-Level Health Provider
MoES	Ministry of Earth Sciences
NDMA	National Disaster Management Authority
NGO	Non-Governmental Organization
NHM	National Health Mission
NIC	National Informatics Centre
NPCCHH	National Programme on Climate Change and Human Health
NAPCC	National Action Plan on Climate Change
NITI Aayog	National Institution for Transforming India
ORS	Oral Rehydration Solution
PHC	Primary Health Centre
PRI	Panchayati Raj Institution
R&D	Research and Development
R&B	Roads and Buildings Department
RDO	Revenue Divisional Officer
RD	Rural Development
RWS	Rural Water Supply
SAPCCHH	State Action Plan on Climate Change and Human Health
SDG	Sustainable Development Goal
SERP	Society for Elimination of Rural Poverty
SHG	Self-Help Group
SPCCHH	State Programme on Climate Change and Human Health
ToT	Training of Trainers
ULB	Urban Local Body
UNICEF	United Nations Children's Fund
VHNSC	Village Health, Nutrition and Sanitation Committee
WCD	Women and Child Development
WHO	World Health Organization

WSD	Watershed Department
YSR	Yeduguri Sandinti Rajasekhara

Annexures

1. Signed Order Issued by the District Collector Directing Inter-Departmental Consultations for the District Heat Action Plan

Government of Andhra Pradesh
Revenue Department

From
Sri O.Anand, I.A.S.,
Collector & District Magistrate,
Ananthapuramu.

To
All District Officers,
Ananthapuramu District.

Rc.No.D1/3428/2025 Dated 26.09.2025

Sir,

Sub: **Disaster Management** – Ananthapuramu District – Department wise Consultations on Heat Action Plan 2026– Certain instructions – Issued Regarding.

&&&

It is to inform that, as all are aware that, Ananthapuramu District faces recurrent and severe heat conditions that pose a significant risk to public health, livelihoods, and essential services. In alignment with State priorities and the National Programme on Climate Change and Human Health (NPCCHH), it has been decided to prepare and implement a comprehensive District Heat Action Plan to ensure coordinated preparedness and response across all line departments.

In this connection. a multi-departmental consultation has already been conducted to initiate the process and outline the need for collective action. Building on this, it has been decided that the Swasti team, in partnership with the District Administration, will be holding department-wise consultations. These consultations will provide each department the opportunity to:

- Share the ongoing work and initiatives currently being undertaken to tackle heat.
- Identify key gaps and challenges in implementing effective heat response.
- Discuss specific steps and responsibilities that can be included in the District Heat Action Plan to reduce the impact of heat on communities and services.

Therefore, all the officers are hereby informed to extend cooperation to the Swasti team when they reach out to your department. Please ensure that a senior officer (not below the rank of Deputy Director/Deputy Officer) is available for the consultation, and that relevant information and inputs are shared in a timely manner. Cooperation is critical to ensure that the Heat Action Plan is practical, comprehensive, and effective in protecting the people of Ananthapuramu from the risks of extreme heat.

Hence, all concerned officers are requested to treat this matter as TOP PRIORITY.

Yours faithfully

26/09/25

Collector & District Magistrate
Ananthapuramu

Copy to the CC to the Collector & District Magistrate, JC and DRO.

2. DAPCCHH Checklist

DAPCCHH Assessment Checklist **District:_____ State:_____**

Version assessed: 1st ◯/ 2nd ◯/ 3rd ◯

SAPCHH topics	Air poll.	Heat	VBD	EWE	GCR
1. Understanding health impact (Part 1 and 2)					
• hazard data/map	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	--
• vulnerability/risk index/mapping	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	--
• hotspot name/map, NCAP cities	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	--
2. NPCCHH organizational structure	Y◯ N◯				
3. Identifying stakeholders (Part 1 & annexure)					
• DNO, Env health cell	DO◯ Contact info◯	• IEC printing nodal person identified			Y◯ N◯
• Task force	DO◯ Member info◯	• Training institute identified			Y◯ N◯
		• Master trainers identified			Y◯ N◯
4. Roles & responsibilities of officers & different levels	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯
5. Early warning dissemination mechanism	Y◯ N◯	Y◯ N◯		Y◯ N◯	
6. IEC general awareness (Plan/Content mentioned)	Plan◯ Content◯	Plan◯ Content◯	Plan◯ Content◯	Plan◯ Content◯	Plan◯ Content◯
7. Capacity building of health professions	Plan◯ Resources◯	Plan◯ Resources◯	Plan◯ Resources◯	Plan◯ Resources◯	Plan◯ Resources◯
8. City level action plan guidance	--	Y◯ N◯	--	--	--
9. Hospital preparedness/ GCR plan (details/ref.)	Y◯ N◯	Y◯ N◯		Y◯ N◯	Y◯ N◯
10. Clinical Management	--	Y◯ N◯	--	--	--
11. Disease Surveillance and reporting mechanism	Y◯ N◯	Y◯ N◯	Y◯ N◯	--	--
12. Emergency/Outbreak Response	Y◯ N◯	Y◯ N◯	--	Y◯ N◯	--
13. Intersectoral coordination	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯
14. Health facility resilience (long term)	--	Y◯ N◯	--	--	Y◯ N◯
15. Monitoring & evaluation of implementation	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯
16. Budget (2yrs current +3yrs projected)	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯
17. IEC posters in (HQ/local language)	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯	Y◯ N◯

Assessed by: _____ Date of assessment: _____

DO=Direct order

3. DAPCCHH IEC Dissemination Reporting

Annual IEC dissemination plan on Heat and Health

IEC type	Material (Link/Annexure)	Dissemination Timeline	Dissemination Mechanism
Advisory			
Posters			
Wall painting			
Audio-Visual			
Bus painting			
Digital display			
Social media			

4. DAPCCHH Heat Stroke Preparedness Reporting

Plan for Heat Stroke Preparedness Measures at Health Facility Level in Summer Season (March-July)

	Total No. of Facilities	No. of facilities having ORS corners	No. of Facilities having Heatstroke rooms/wards prepared	No. of facilities Emergency cooling First-aid available
DH				-
SDH				-
CHC				-
PHC			-	
HWC			-	
Ambulance			-	

5. NPCCHH, 2024: Heat Preparedness Assessment Framework for Health Facilities

A. Mapping equipment availability as per level of facilities based on recommendations in NPCCHH PIP guidelines

Questions	MC, Sp & Super sp hospitals*	DH & SDH	CHC	PHC
1. bed allocation (Y/N) 2. number of beds available	Yes + min 5 beds	Yes + min 5 beds	Yes + min 2 beds	Not applicable
1. functional rectal thermometers? (Y/N) 2. functional continuous core temperature monitor probes and functional multiparameter monitors? (Y/N)	Yes for any	Yes for any	Yes for any	Yes for 3.c
Adequate ice packs as per the number of dedicated beds available (6/bed)? (Y/N)	Yes	Yes	Yes	Yes
Garden sprayer/water spray bottles available? (Y/N)	Yes	Yes	Yes	Yes
Adequate linens or towels to cool the patients using cold/wet towel method available?	Yes	Yes	Yes	Yes
Functional deep freezer/ILR for making ice/ice packs available?	Yes	Yes	Yes	Yes
Functional refrigerator/ice box available that can be used to cool normal IV saline/fluids?	Yes	Yes	Yes	Yes
Ice coolers/ice storage boxes to store large quantity of ice cubes available?	Yes	Yes	Yes	Yes
A standing/portable fan for directed, fast air current for active cooling available?	Yes	Yes	Yes	Yes
Any of below available: *Check all that apply.* 1. Portable bathtub/s 2. Waterproof zipper/body bags 3. Tarpaulin for (TACO) 4. None of above	Any of 1, 2, 3	Any of 1, 2, 3	Any of 1, 2, 3	Any of 2 and 3

**Medical college, specialty and super specialty hospitals*

B. Recommended availability of rapid, active cooling methods as per the level of service delivery expected

Cooling methods (Most effective to least)	**Equipment mapping**	**MC, Sp & Super sp hospitals**	**DH & SDH**	**CHC**	**PHC**
1. Ice/cold water immersion	Portable bathtub (Yes) **or** Zipper/Cadaver bag (Yes**) and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	**Essential**	**Desired**	**Desired**	--
2. Ice/cold water immersion	Zipper/Cadaver bag (Yes) **or** Tarpaulin (Yes) **and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	--	**Essential**	**Essential**	**Essential** (pre-referral)
3. Ice towel application	Adequate linens or towels? (Yes) **and** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes)	**Essential**	**Essential**	**Essential**	**Essential**
4. Ice packs application	Adequate ice packs as per the number of dedicated beds? (Yes) **and** Functional refrigerator/ice box that? (Yes)	**Essential**	**Essential**	**Essential**	**Essential** (non-quantified)
5. Evaporative cooling	Garden sprayer/water spray bottles? (Yes) **and** A standing/portable fan for directed, fast air current for active cooling? (Yes)	**Basic**	**Basic**	**Basic**	**Basic**
6. Evaporative cooling	Adequate linens or towels to cool? (Yes) **and** A standing/portable fan for directed, fast air current for active cooling? (Yes)	**Basic**	**Basic**	**Basic**	**Basic**
7. For application of cold water and cooling IV fluid	Functional refrigerator/ice box? ***or*** Ice coolers/ice storage boxes to store large quantity of ice cubes? (Yes) ALONE	--	**Inadequate**	**Inadequate**	**Inadequate**

C. Assessing prepared based on the Highest level of effective cooling method available

Potential cooling method availed (Most effective to least)	**Medical college, specialty & super specialty**	**DH & SDH**	**CHC**	**PHC**
Conductive cooling method				
1. Ice Water Immersion (1-5°C water)	**Optimally** prepared (if No 1 is available + either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (Either no 1 or 2 is available+ either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (Either no 1 or 2 is available+ either of No 3 or 4 available + either of 5&6 available)	**Optimally** prepared (if no 2 is available+ either of No 3 or 4 available + either of 5&6 available)
2. Colder Water Immersion (8-12°C)				
Combined cooling method				
3. Commercial Ice Packs + Ice application	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)	**Adequately** Prepared (if No 3 & 4 available and 5 or 6 available)
4. Ice Sheets and Towels				
Evaporative Cooling method				
5. Evaporative Cooling	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)	**Basic** preparedness (if No 5 or 6 available)
Passive/Supplementary method of cooling				
6. ONLY Cold Intravenous Fluids (4°C)	**Inadequate** preparedness (if only No 7 available of all)	**Inadequate** preparedness (if only No 7 available)	**Inadequate** preparedness (if only No 7 available)	**Inadequate** preparedness (if only No 7 available)

Table 3 Signs and symptoms of heat-related illnesses in infants, children, adolescents and pregnant populations

High severity and urgency

Target Populations	Heat Stroke	Heat Exhaustion	Heat Syncope	Heat Cramps	Heat Edema	Heat Rashes	Dehydration**
All Populations 	• **Altered mental state (e.g., inappropriate behaviour, seizures, delirium, slurred speech, extreme lethargy, coma/loss of consciousness)** • Very high core body temperature (40°C/104°F) • Associated symptoms include: • Nausea • Rapid heartbeat/breathing • Hot and dry or damp skin • Sweating may or may not be present	• No altered mental state • High core body temperature (under 40°C/104°F) • Increased thirst • Heavy sweating • Headache • Cool and/or damp skin • Weakness and tiredness • Muscle cramps • Nausea or vomiting	• Brief loss of consciousness, usually in person standing for a prolonged period or rapidly changing positions in a warm environment	• Painful and involuntary contractions of skeletal muscle • Flushed and/or moist skin	• Swelling of hands, feet or other dependent areas	• Tiny bumps on skin, usually in chest or upper back • Could result in tiny blisters	• Dry mouth and tongue Sticky lips/mouth • Drowsy or sleepy • Little urine • Dark urin • Dizziness • Sunken eyes
Specific to Infants and Children under 4 years 	• Very irritable (unable to express specific symptoms) • May present symptoms of dehydration as well	• Very irritable (unable to express specific symptoms)		• Very irritable (unable to express specific symptoms) • Mild/slightly high core body temperature may be present (less than 39.5°C/102.5°F)		• Can occur in diapered area or if baby is overclothed/ overdressed	• Sunken soft spot (fontanelle) on baby's head and cheeks • No tears when crying • Decreased urine output or dark urine • Irritable (unable to express specific symptoms)
Specific to Older Children and Adolescents 	• May be associated with exertion, e.g., sports	• Muscle cramps (may be verbally expressed) • Nausea (may be verbally expressed)					
Specific to Pregnant Women 	• Very high core body temperature (above 39°C/102°F)* • Symptoms of severe dehydration such as labour contractions (Braxton Hicks) may present	• Increase in core body temperature (under 39°C/102°F)		• Involuntary contractions may affect calves, arms and stomach area (most common)	• Swelling most often seen around lower legs and feet	• Tiny bumps on the skin, in particular in the crease between and beneath the breasts, crease where bulge of lower abdomen rubs against the top of pubic area, on back, inner thighs, armpits, and other creasing areas	• Inadequate breastmilk production • False labour (Braxton-Hicks) contractions

Source: Adapted from various sources.[77]

* *While literature is still being generated to form consensus, the current convention is to presume that pregnant women are at higher risk at a lower core body temperature due to the potential effect that it has on the developing fetus. This also reflects guidance published by the Centers for Disease Control and Prevention (CDC).*

** According to a publication in American Family Physician, if children present symptoms of dehydration, commercial electrolyte solutions or local/ home-based rehydration solutions should be administered using only clear liquids.[78] Infants 6 months and under should be exclusively breastfed.

6. Guidelines for Investigation of Suspected Heat Related Illness Death from 2021 National Action Plan on Heat related Illness

Guidelines for Investigation of Suspected Heat Related Illness Death

(To be filled by an epidemiologist/medical officer)

Unique ID:

Respondent's Name: Relationship of respondent with deceased:

Residential address of respondent:

Section A: Deceased's identifier details

A.1. Name of deceased:	A.2. Age (in completed years & months):	Y	Y	M	M
A.3. Sex: Male / Female/Transgender:	A.4. Father's/Mother's/Spouse's name:				
A.5. Residential Address of deceased					
A.5.1 State:	A.5.2. District:				
A.5.3. Block/Taluka:	A.5.4. Ward/village:				
A.6. Does the deceased have the following socio-economic card	i. BPL ii. Antayodya iii. Annapurna iv. Other or equivalent (mention)..... v. None				
A.7. What was the last occupation of the deceased:					

Section B: Death detail

No.	Questions	Coding categories	If no, Skip to
B.1	Was the deceased found unconscious or dead?	Yes.....1 No.....2 I don't Know.....3	B.3
B.2	Place where deceased was found unconscious or dead?	Athome.....1 At workplace.....2 At social gathering...3 On-road.....4 Other (specify).....	
B.3	Location where deceased was found unconscious or dead		

	B.3.1 State:			B.3.2. District:		
	B.3.3. Block/Taluka:			B.3.4. Ward/village:		
B.4	Name of hospital and address where deceased was brought dead or died:					
B.5	Date and time of the death: (from medical record)	DD	MM	YYYY	HH	MM

Section C: Clinical history in past 24 hr before death (from medical record followed by respondent)

C.1. Symptoms at the time of onset of illness:						
C.1.1. Was the skin hot and dry? (a. From Medical Record b. From Respondent c. both)	Yes.....1 No.....2 I don't Know.....3					
C.1.2 Was the deceased in altered mental sensorium? (a. From Medical Record b. From Respondent c. both)	Yes.....1 No.....2 I don't Know.....3					
C.1.3. What was the core body temperature? (from medical record only):						
C.1.4. What was the deceased's vitals? (from medical record only): a. Pulse rate: b. Respiratory rate: c. Blood pressure:						
C.2. Date and time of onset of the first symptom of heat illness:	DD	MM	YYYY	HH	MM	
C.3. Place of onset of first symptom:	At home.....1 At workplace.....2 At social gathering.....3 On-road.....4 School/college.....5 Other (specify).....					
C.4. Location of onset of symptoms						
C.4.1 State:	C.4.2. District:					
C.4.3. Block/Taluka:	C.4.4. Ward/village:					
C.5. Did the deceased have an alcoholic beverage within a day of onset of illness?	Yes.....1 No.....2 I don't Know.....3					

Section D: Outdoor activities just before the onset of illness

No.	Questions	Coding categories	If no, Skip to
D.1	Just before the onset of illness, was the deceased present outdoors?	Yes.....1 No.....2 I don't Know.....3	E.1
D.2	Was the deceased engaged in outdoor occupational activities?	Yes.....1 No.....2 I don't Know.....3	D.3

D.3	Was the deceased working under direct sunlight?	Yes.....1 No.....2 I don't Know.....3	
D.4	Was the deceased working in peak hours of the day, i.e. 11 AM to 4 PM?	Yes.....1 No.....2 I don't Know.....3	
D.5	Was the deceased working near heat sources.e., hot furnace, stove, gas fire, wood fire, steam, hot engines/ machines?	Yes.....1 No.....2 I don't Know.....3	D.7
D.6	If yes to D.5, the type of heat source was:	Fire (hot furnace, stove, gas fire, hot engines).....1 Steam 2	
D.7	Was the deceased doing any physical exertional activity?	Yes.....1 No.....2 I don't Know.....3	D.8
D.8	Was the deceased sitting in a vehicle?	Yes.....1 No.....2 I don't Know.....3	D.12
D.9	If yes to D.8, was the vehicle parked in a shaded area?	Yes.....1 No.....2 I don't Know.....3	
D.10	If yes to D.8, what was the approx. duration of sitting in vehicle?	0-1 hr.....1 >1 hr.....2	
D.11	If yes to D.8, was the air-conditioner working in vehicle?	Yes.....1 No.....2 I don't Know.....3	
D.12	Remarks on outdoor activity, if any:		

Section E. Indoor conditions just before the onset of illness.

E.1	Was the deceased INDOORS?	Yes.....1 No.....2 I don't Know.....3	F1
E.2.	If yes to E.1, were the following items, i.e., ceiling fan, desert cooler, air conditioner present?	Yes.....1 No.....2 I don't Know.....3	
E.3	If yes to E.2, describe the item, its working condition and whether it was switched on or not? Description:		
E.4	Type of house/Room where decease was found	Pucca house (house-made with high-quality materials throughout, including the floor, roof and exterior walls).....1 Katcha house (House made from mud, thatch, or other low-quality materials).....2	

E.5	Windows in rooms	Yes.....1 No.....2 I don't Know.....3	
E.6	If there were windows in the room, were they open at the time of onset of symptoms	Yes.....1 No.....2 I don't Know.....3	

Section F: Medical conditions recorded at first medical contact (as per medical record)

No.	Questions	Coding categories	If no, Skip to
F.1	Was the deceased suffering from any chronic medical condition?	Yes.....1 No.....2 I don't Know.....3	
F.2	Was the deceased suffering from any acute medical conditions before the onset of the current illness?	Yes.....1 No.....2 I don't Know.....3	F.4
F.3	If yes to F.2, list the illness and duration of suffering-		
F.4	Was the deceased taking any medications before the onset of current illness?	Yes.....1 No.....2 I don't Know.....3	Section -G
F.5	If yes to F.4, list the medication and duration since taking-		

Section G: Weather data from the India Meteorological Department

No.	Questions and Filters	Coding categories/Response	If no, Skip to
G.1	What was the maximum temperature (Tmax) of the day in the area at/ around the onset of illness/death (if onset unknown)?		
G.2	What was the maximum temperature (Tmax) for each day of the past 3 days from the date of patient death?:	a. One day back: b. Two days back: c. Three days back:	
G.3	Was there a heatwave affecting the area/region on the date of onset of illness?	Yes.....1 No.....2 I don't Know.....3	
G.4	Was there a heatwave in the previous 3 days in the area where the onset of illness occurred?	Yes.....1 No.....2 I don't Know.....3	

G.5	What was the relative humidity of the area at/around the onset of illness(or at time of death if onset unknown)?:		
G.6	What was the relative humidity for each day of the past 3 days from the patient's date of death?:	a. One day back: b. Two days back: c. Three days back:	

Form filled by:

Name: ..... Signature:

Designation:..... Date:

Guidelines to fill HRI death investigation form

1. Any of the following should fill the HRI and death investigation form:
    a. Medical officer of Primary Health Centre or Community Health Centre.
    b. Doctor on duty in health facility/hospital where the suspected case of HRI died.
    c. Epidemiologist doing HRI death investigation.
2. Data sources to fill the form are as follows:
    a. Deceased's photo ID record: aadhar card/pan card/voter ID/ration card/driving licence, etc.
    b. Respondent's photo ID record: aadhar card/pan card/voter ID/ration card/driving licence, etc.
    c. Past medical records.
    d. Hospital medical record
    e. Interview with the relatives/caretakers/neighbour/person brought or saw the ill or suspected deceased.
    f. Weather record from Indian Meteorological Department (IMD) website or IMD office.
3. Unique ID:
    a. The unique ID will be as local government directory available at https://lgdirectory.gov.in/
4. Section A: deceased's details
    a. Section A.1 to A.6.: The name, age, sex, father's/spouse's name, residential address should be as per valid government ID. The information taken from government ID or relative or some other source should be mentioned in the remarks box.
    b. Section A.7: Current occupation: Within a week of death.

Note: The activities/occupational activities just before death/onset of symptoms will be mentioned in section D.

5. Section B: Death detail
    a. Section B.2.: Place the deceased found: The purpose of getting information on the place where the decedent was found dead is to know the circumstances in which the death of person occur and to correlate it with the weather condition of that area (*the weather condition will be recorded in section H*).
    b. The name of the hospital where the deceased was brought dead or declared dead is for record purpose.
6. Section C: Clinical history in the past 24 hr before death (from medical record and relatives)
    a. The answers for this section should be extracted from medical records. If the information is not available from medical records, then it should be sought from respondents/relatives.
    b. Symptoms at the time of onset of illness: for diagnosis purpose
    c. Date and time of onset: for correlating with climate variables of that day and time.
    d. Place of onset of symptoms: for correlating with climate variables of that place.
    e. Did the deceased have an alcoholic beverage within a day of onset of illness?: for contributing factors

7. Section D: Outdoor activities just before the onset of illness:
    a. Section D. requires the details of whether the decedent was outdoor/indoor before/during the onset of symptoms.
8. Section E: Indoor conditions just before the onset of illness
9. Section F: Other non-Heat-Related questions, i.e., chronic, acute and medication history.
    a. Medical record: Any public or private facility or pharmacy note
10. Section H: Weather data from the India Meteorological Department
11. At the bottom of the form, give the details of the person filling the form with his/her name, designation, signature and date of signing. The form should be filled as by the person mention in the first point.

7. Surveillance of Heat Related Illnesses (Formats with Standard Operating Procedures) from 2021 National Action Plan on Heat related Illness.

FORMAT 1 (A): HEALTH FACILITY FORMAT

Daily line List of Suspected Heatstroke CASES# at Health Facility

(From Medicine, Paediatrics and Casualty/Emergency department)

(To be kept at health facility for record)

Name of health facility:_____ Block:_____ District:_____	Date of reporting: _._/_._/_._
Type of health facility (Circle the applicable):1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....	
(A). Total no. of patients in department (Casualty/Emergency of Medicine + Paediatrics):	

Daily line List of Suspected Heatstroke CASES# at Health Facility

S. No	Hospital Registration No.	Name	Age*	Sex (M/F)	Address		Outcome within date of reporting (tick the box)				Remarks
					Block	District	Admitted	Died	Referred	Recovered	
Total											

**Age in completed years*

Name of person filling the form:

Designation:

Signature:

Name of Facility In-Charge:

Signature of Facility In-Charge:

Date:

#Suspected Heatstroke: Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals, i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during heatwave season, i.e., March to July)*

Standard Operating Procedures: Format 1(A)

1. **Format 1 (A)** is a daily line list format of **suspected heatstroke cases** to be filled at health facility.
2. It will be kept at health facility for record purpose.
3. It will be **used to compile line list Format 1(B) and daily reporting Format 2.**
4. **Suspected heatstroke (Case definition):**Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during Heatwave season i.e., March to July)*
5. **Institute and department who will compile suspected heatstroke cases:**
   a. All public hospitals with casualty/emergency.
   b. All private hospitals with casualty/emergency.
   c. Reporting Departments will be casualty/emergency of medicine and paediatrics.
6. **Data collection period**: In standard it will be from **01st March to 31st July, every year**. Further direction will be communicated at the start of the year if required.
7. **Case identification**:
   a. **Person who will diagnose**: A qualified medical doctor will diagnose HRI case as per case definition.

b. **Where will the data be recorded**: A qualified medical practitioner will write the provisional diagnosis in the casualty/emergency register as suspected heatstroke.

c. **Data collecting person:** Pharmacist, multipurpose health worker-male (MPHW-M), staff nurse -either of the employee will collect the data of suspected heatstroke cases that were diagnosed on previous day from emergency/casualty of medicine and paediatrics departments every day.

8. **Day of diagnosis and recording:** The date of diagnosis will be considered as day zero. Cases diagnosed on day Zero should be recorded on the following day, i.e., day One in FORMAT 1 (A). Example: Cases diagnosed on Sunday (Day Zero) will be recorded on Monday (Day One).
9. **Data compilation:** A hard copy of each completed and signed **Format 1(A)** should be stored in a file **daily** in a proper order. A soft copy of the line list should be maintained as a single excel sheet which should be updated **weekly** to include all Heatstroke cases. It should be ready to be submitted to DSU or SSU as per request.
10. **Reporting after a holiday:** A report which should have been prepared on holiday (e.g. Sunday or gazetted holiday) must be compiled and filed on the next working day. For example, cases diagnosed on Saturday (Day Zero) must be recorded on **Format 1 (A)** on Monday (Day Two) along with a separate daily **Format 1 (A)** report of cases diagnosed on Sunday (Day One).
11. **Nil reporting is mandatory in the prescribed format.** No columns will be left blank; in case of nil reporting, **"0"** should be written.

FORMAT 1 (B): HEALTH FACILITY FORMAT

Daily line List of Suspected Heatstroke DEATHS# and Confirmed CVD DEATHS*

(From Medicine, Paediatrics and Casualty/Emergency department)

(To be kept at health facility for record)

Name of health facility:_____ Block:_____ District:_____	Date of reporting: _-_/_-_/_-_
Type of health facility (Circle the applicable): 1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....	
(A). Total no. of all-cause deaths in health facility (Casualty/emergency of Medicine and Paediatrics):	

Daily line List of Suspected Heatstroke DEATHS and Confirmed CVD DEATHS

S.No	Registration number	Name	Age	Sex (M/F)	Address		Deaths (tick the box)	
					Block	District	Suspected Heatstroke death##	Confirmed CVD death
Total								

Name of person filling the form:

Designation:

Signature:

Name of Facility In-Charge:

Signature of Facility In-Charge:

Date:

#**Suspected Heatstroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals, i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during Heatwave season, i.e., March to July)*

##**Suspected Heatstroke Death**: This is a death on account of suspected heatstroke patient.

***Cardiovascular death** includes death resulting from an acute myocardial infarction (MI) or sudden cardiac arrest or heart failure (HF) or cardiovascular (CV) procedures or CV haemorrhage or death due to other CV causes.

Standard Operating Procedures: Format 1 (B)

1. **Format 1 (B)**is a daily line list of **suspected heatstroke deaths** and **confirmed cardiovascular disease (CVD) deaths**.
2. The total number of all-cause deaths in a health facility (casualty/emergency of medicine and paediatrics) should also be recorded.
3. **Institute and department who will report suspected heatstroke cases:**
   a. All public hospitals with OPDs & casualty/emergency.
   b. All private hospitals are having casualty/emergency.
   c. Reporting departments will be casualty/emergency of medicine and paediatrics.
4. **Date of death and recording:** Date of death will be considered as day zero. Cases that died on day Zero should be recorded on the following day, i.e., day One in FORMAT 1 (B). Example: Cases diagnosed on Sunday (Day Zero) will be recorded on Monday (Day One).
5. **Data compilation:** A hard copy of each completed and signed **Format 1 (B)** should be stored in a file **daily** in a proper order. A soft copy of the line list should be maintained as a single excel sheet which should be updated **weekly** to include all suspected heatstroke deaths and confirmed CVD deaths. It should be ready to be submitted to the district or state nodal unit as per request.
6. **Nil reporting is mandatory in the prescribed format.** No columns will be left blank; in case of nil reporting, **"0"** should be written.

FORMAT 2: HEALTH FACILITY FORMAT FOR SENDING TO DISTRICT

Daily numbers of Suspected Heatstroke CASES# and All cause DEATHS*

(Compilation of Format 1, A & B)

(To be sent to District Nodal Unit daily)

Name of health facility: _____ Block:_____ District:_____	Date of reporting: . / . / .
Type of health facility (Circle the applicable): 1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....	
Department (Circle the applicable): 1. Emergency Medicine 2. Emergency Paediatrics 3. Casualty	

Date	Total patients in the department	New Suspected Heatstroke Cases (A)	Total Suspected Heatstroke cases since 1st March 2020 (B)	All-cause deaths**			
				Suspected Heatstroke deaths## (a)	Confirmed CVD deaths (b)	Others including unknown (c)	Total deaths (a+b +c)
01-03-20							
02-03-20							

Form filled by (Name):

Designation:

Signature:

Name of Facility In-Charge:

Signature of Facility In-Charge:

Date:

All-cause death: All of the deaths in casualty/emergency medicine plus paediatrics, regardless of cause.

#**Suspected Heatstroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals, i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during Heatwave season i.e., March to July)*

##**Suspected Heatstroke Death**: This is a death on account of suspected heatstroke patient.

***Cardiovascular death** includes death resulting from an acute myocardial infarction (MI) or sudden cardiac arrest or heart failure (HF) or cardiovascular (CV) procedures or CV haemorrhage or death due to other CV causes.

Standard Operating Procedures: Format 2

(Health facility format for sending to DISTRICT)

1. **Format 2** will be compiled from data of **Format 1 (A)** and **Format 1 (B)** by the nodal person at the health facility daily.
2. **Institute and department who will report HRI:**
   b. All public hospitals with casualty/emergency.
   c. All private hospitals are having casualty/emergency.
   d. Reporting Departments will be medicine, paediatrics and casualty/emergency.
3. **Time of reporting to district nodal unit: Format 2 compiled from Format 1 (A) should be reported to District nodal unit on the following day (day one) by 12.00 hr (i.e. noon).**
4. **Reporting person:** A nodal person identified for the health facility will prepare the report.
5. **Data compilation:** A soft copy in the form of an excel sheet shall be e-mailed **daily** to the district nodal unit through a proper channel. In places where the internet facility is not available, the report can be communicated by any possible means. A hard copy of each **Format 2** should be kept in a designated file daily at the institutions/health facility.
6. **Data collection period**: In standard, it will be from **01st March to 31st July every year**. Further direction will be communicated during the start of the year if required.
7. **Nil reporting is mandatory in the prescribed format.** No columns will be left blank; in case of nil reporting, **"0"** should be written.
8. **If not submitted on time:** Late report must be submitted within 48 hrs.

FORMAT 3 (A): DISTRICT FORMAT FOR DAILY COMPILATION

Daily numbers of Suspected Heatstroke CASES[#] and All cause DEATHS[*]

(Compiled from Format 2)

(To be kept at District for record)

Cases and deaths due to HRI- *District name* 2020					Date of reporting: _._/_._/_._				
S. No.	Name & type of Health Facility	Total patients of the day (Emergency Medicine + Emergency Paediatrics + Casualty)	New Suspected Heatstroke cases (A)	Total Suspected Heatstroke cases since 1st March, 2020 (B)	All-cause deaths**				Re-marks
					Suspected Heatstroke deaths## (a)	Con-firmed CVD deaths (b)	Others including unknown (c)	Total deaths (a+b +c)	
	PHC1								
	PHC2								
	CHC								
	CH/DH								
	PVT1								
	PVT2								
	PVT3								
Total for District 1									

Total number of New Confirmed Heatstroke Deaths* in the District on _._/_._/_._:**
Total number of Confirmed Heatstroke Deaths in the District since 1st March 2020:
[confirmed by death committee (heat death committee/three men committee)]

Name of person filling the form: Name of nodal officer:

Designation: Signature of nodal officer:

Signature: Date:

[**]**All-cause death:** All of the deaths in casualty/emergency medicine plus paediatrics, regardless of cause.

[#]**Suspected Heatstroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals, i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during heatwave season, i.e., March to July)*

[##]**Suspected Heatstroke Death**: This is a death on account of a suspected heatstroke patient.

*__Cardiovascular death__ includes death resulting from an acute myocardial infarction (MI) or sudden cardiac arrest or heart failure (HF) or cardiovascular (CV) procedures or CV haemorrhage or death due to other CV causes.

***__Confirmed Heatstroke Death__: A suspected heatstroke death confirmed by the death committee (heat death investigation committee/three-person committee) at the district level.

Standard Operating Procedures: Format 3 (A)

(District format for compilation from health facility)

1. **Format 3**(A) will be compiled by a nodal officer **daily** at District nodal unit.
2. **Format 3 (A)**will be compiled from **Format 2** from all health facility.
3. **Format 3 (A) adaptation:** Modify relevant fields (in grey italic fonts) in given Format 3 (A) to add the name of your district, to list **all** the government facilities and private reporting units in a proper order- from the primary health centre (PHC), Community Health Centre (CHC), District Hospital (DH), Civil Hospital (CH) to Private. This will be the **standard Format 3**(A) for your district for daily data compilation during the whole reporting period of a year.
4. **Total patient of the day:** Against each health facility, write the total patient of the day from emergency medicine, emergency paediatrics and casualty.
5. **Data compilation**: District nodal unit should receive Format 2 from health facilities by **12.00 hr (i.e. 12.00 noon) daily.** Format 3 (A) should be compiled daily from all submitted Format 2 reports. A date-wise soft copy of each daily Format 3 (A) report should be maintained digitally in a designated folder. A hard copy of the same should be printed and filed daily at the district level.
6. **Data collection period**: In standard, it will be from **01st March to 31st July every year**. Further direction will be communicated during the start of the year if required.
7. No reporting by health facility:

a. If a health facility report (**Format 2**) is not received on time, write "delayed" in the row for that facility.

b. If the facility reports to the district after the deadline of 12:00 noon, **Format 3 (A)** should be updated to reflect the change. Format 3 (A) for the given reporting period can be updated till 48 hrs and should show the updated date of reporting, if applicable.

c. If the health facility does not submit **Format 2 at all or** submits it after 48 hrs of reporting deadline, Format 3 of that reporting period should be updated; "delayed" should be changed to "not available".

8. **Reporting after a holiday: Format 3 (A)** which should have been prepared on holiday (e.g. Sunday) must be compiled and prepared on the next working day. For example, facility reports (Format 2) submitted to the district on Saturday must be compiled on **Format 3**(A) on Monday, along with a separate **Format 3**(A) for facility reports submitted to the district on Sunday.
9. **Nil reporting is mandatory in the prescribed format.** No columns will be left blank; in case of nil reporting, **"0"** should be written.
10. **Confirmed heatstroke death:** a suspected heatstroke death is to be reported as and when the death is confirmed by the death investigation committee (heat death committee/three men committee) at the district level.

FORMAT 3 (B): DISTRICT FORMAT FOR SENDING TO STATE

Daily numbers of Suspected Heatstroke CASES[#] and All-cause DEATHS[*]

(Compiled from Format 3 A)

(To be sent to State Nodal Unit daily while keeping a copy for record)

Cases and deaths due to heatstroke- *District name* 20_ _								Date of reporting: _-_/_-_/_-_	
Date	**Total patients of the day (Emergency Medicine + Emergency Paediatrics + Casualty)**	**New Suspected Heatstroke Cases (A)**	**Total Suspected Heatstroke cases since 1st March, 20_ _ (B)**	**All-cause deaths****				**New Confirmed Heatstroke Deaths*****	**Total Confirmed Heat Deaths since 1st March 20_ _**
				Suspected Heatstroke deaths## (a)	**Confirmed CVD deaths (b)**	**Others including unknown (c)**	**Total deaths (a+b +c)**		
01-03-2020									
02-03-2020									

Name of person filling the form:

Designation:

Signature:

Name of nodal officer:

Signature of nodal officer:

Date:

[**]**All-cause death:** All of the deaths in casualty/emergency medicine plus paediatrics, regardless of cause.

[#]**Suspected Heatstroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature ≥ 40 °C/≥104 °F,** without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during heatwave season, i.e., March to July)*

[##]**Suspected Heatstroke Death**: This is a death on account of suspected heatstroke patient.

[*]**Cardiovascular death** includes death resulting from an acute myocardial infarction (MI) or sudden cardiac arrest or heart failure (HF) or cardiovascular (CV) procedures or CV hemorrhage or death due to other CV causes.

[***]**Confirmed Heatstroke Death**: A suspected heatstroke death confirmed by the death investigation committee (heat death committee/three men committee) at the district level.

Standard Operating Procedures: Format 3 (B)

(District format for sending to State)

1. **Format 3** (B) will be compiled by a nodal officer **daily** at District nodal unit.
2. **Format 3 (B)** will be compiled from the end row of **Format 3 (A)**.
3. **Time of reporting to state nodal unit:** Format 3 (B) compiled from Format 3 (A) should be reported to the state nodal unit on the following day **(day one) by 04.00 PM.**
4. **Reporting after a holiday: Format 3 (B)** which should have been prepared on holiday (e.g. Sunday) must be compiled and prepared on the next working day. For example, facility reports (Format 2) submitted to the district on Saturday must be compiled on **Format 3**(B) on Monday, along with a separate **Format 3**(B) for facility reports submitted to the district on Sunday.
5. **Nil reporting is mandatory in the prescribed format.** No columns shall be left blank; in case of nil reporting, **"0"** should be written.
6. **Confirmed heatstroke death:** a suspected heatstroke death is to be reported as and when the death is confirmed by the death committee (heat death committee/three-man committee) at the district level.

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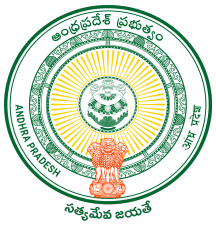

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