

District Heat Action Plan (DHAP)-2023



Prepared by :

District Disaster Management Authority, (DDMA),

District : Gajapati

Phone -06815-222943

Email – deocgajapati@gmail.com

Submitted to :

Odisha State Disaster Management Authority, (OSDMA)

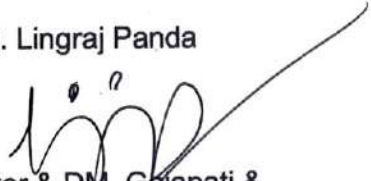
MESSAGE



Heat waves do not fetch as much public attention as more dramatic disasters such as earthquakes and floods, but until more recently they were taking a substantial toll of lives in India. Between 1992 and 2015, they caused 24,223 deaths across the country. Despite these numbers, there had been no national-level strategy or vision to tackle the heat wave as a disaster. Until 2015, the deaths and diseases heat waves brought were not accorded due recognition at the national level as hazards. That was unfortunate, as annual deaths in India due to heat-wave conditions were high and could have been avoided with effective planning, coordination and implementation. In Odisha alone in 1998 Heat wave around 2100 precious lives we lost in heat wave. Heat wave is a silent killer in our ignorance we became victim of killer heat wave. As of now various states including our state Odisha has declared Heat Wave as local disaster. Heat waves in the recent years have become a challenge, for not only the health, environment or water related agencies but equally or even more for the disaster management authorities and climate change adaptation programs.

We are immensely happy that this year District Disaster Management Authority (DDMA) Gajapati with collaboration of the OSDMA is taking steps for the preparation of the Heat Action plan in our district. This plan will guide all stakeholders and line department officers on managing heat wave preparedness work in our district. DDMA, Gajapati recognize and appreciate all the relentless support and cooperation of all line departments in preparation of the Heat Action Plan of District. Our motto is how to save the most precious lives of humans, and flora and fauna of district from scorching heat in impending summer season. Certainly this plan will helpful to educate how to manage the heat wave.

Sj. Lingraj Panda


Collector & DM, Gajapati &
Chairman , District Disaster Management Authority
(DDMA)
Gajapati

FORWARD

Heat wave is a “silent disaster” as it develops gradually and results in deaths and injuries to humans and animals. Extreme positive departures from the normal maximum temperature, higher daily peak temperatures of longer duration and more intense heat waves are becoming increasingly frequent globally due to climate change. This unusual hot weather causes major disruption in community infrastructure such as power supply, public transport and other essential services and adversely affects human and animal health leading to physiological stress, sometimes even death. This is also diversely affecting the economy and food production as it is directly affecting the agriculture sector. Over the past several years, there has been an increasing trend of heat-wave in Odisha whereby several districts are extremely affected by the adverse impact of heat wave.



In the year 1998 there was severe heat wave occurred in our state around 2100 people died in this. In the last 20 years, the state has endured heat waves almost every year and the duration of heat period has been increasing in every part of the state. Prior information about the possible heat wave conditions will help in taking precautionary action, also the government agencies to be vigilant and allow them to plan outreach activities to save the lives of the humans and animals. As per the data of the district few blocks like Gosani & Kashinagar became more vulnerable in summer seasons due to large numbers of urban population, similarly other blocks are vulnerable due to water scarcity and forest fire.

The district administration emphasizes that the actions mentioned in the Heat Wave Action Plan - 2023 be implemented and requests all line departments in district and other stakeholders to use the plan document for reference and make their own action plans. Also requested to seek guidance from various academic and scientific institutions and civil society organizations/NGO to ensure there are no fatalities due to Heatwave in our Gajapati district. I hope that this document will help all stakeholders across government, humanitarian agencies and private sector to understand their roles in making Gajapati become resilient to heat wave hazard in state.


Sj Sangram Sekhar Panda, OAS (SAG)
District Nodal Officer,
Disaster Management & Coordination, Gajapati

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Abbreviations

ANM -Auxiliary Nurse Midwife
ASHA -Accredited Social Health Activist
ADM -Additional District Magistrate
AWC-Anganwadi Centre
AWS -Automated Weather Stations
CO₂- Carbon dioxide
CH₄- Methane
CC- Climate Change
CHC – Community Health Center
CDO-EO – Chief Development Officer –Cum Executive Officer
CDM & PHO – Chief District Medical & Public Health Officer
DDMA- District Disaster Management Authority
DEOC – District Emergency Operation Center
DHH – District Head Quarter Hospital
DM – District Magistrate
CHC -Community Health Centre
DRR -Disaster Risk Reduction
DEO – District Emergency Officer
HAP -Heat wave Action
ICDS -Integrated Child Development Services
IEC -Information, Education and Communication
IDSP Integrated Disease Surveillance Programme
IMD- Indian metrological department
KVK- Krishi Vigyan Kendra
IMA – Indian medical association
MGNREGA- Mahatma Gandhi National Rural Employment Guarantee Act.
MOEF&CC- Ministry of Environment Forest and Climate Change
N₂O -Nitrous Oxide
NDMA – National Disaster Management Authority
ORS – Oral rehydration solutions
OSDMA – Odisha State Disaster Management Authority
PRI – Panchayat Raj Institutions
PHC – Primary Health Center
PHED – Public Health & Engineering Department
RTO – Road and Transport Office
RRT – Rapid Response Team
SMS – Short message Service
SMI – Soil Moisture Index
SOP – Standard Operating Procedure

CHAPTER-I

INTRODUCTION

An Introduction:

Extreme heat is a risk to human health and wellbeing as well as to infrastructure and services. In some parts of the world extreme heat is seasonal. Often, the hottest time of the year is prior to the start of the rainy season; although this is not the case everywhere. Extreme heat can occur over large geographic areas and can combine with other factors such as humidity to increase the risk of negative health impacts and death. One form of extreme heat is called a 'heat wave' – a period when temperatures, or temperature in combination with other factors, are unusually high and hazardous to human health & wellbeing impacts to animal life and environment. Heat waves typically have a noticeable start and end, last for a period of days and have an impact on human activities and health. Heat wave incidences and impacts are increasing around the globe. In India, heat wave has been a major concern for more than two decades now. Heat wave are projected to increase in number, intensity and duration over most of the land area in the 21st century. In India the impact of increased temperatures is already being observed. Concentrations of the major greenhouse gases, CO₂, CH₄, and N₂O, continued to increase in 2019 and 2020. Despite developing La Niña¹ conditions, global mean temperature in 2020 is on course to be one of the three warmest on record. The past six years, including 2020, are likely to be the six warmest years on record. The global mean temperature for 2020 (January to October) was 1.2 ± 0.1 °C above the 1850–1900 baseline, used as an approximation of pre-industrial levels (Figure 1)

Odisha has a witnessed severe of Heat Waves with soaring temperatures being recorded in several parts of the state. Around 2042 people died in the State in the year 1998 due an unprecedented heat wave situation. In subsequent year like 2005 total 236 people died in heat wave as per OSDMA information. Heat Wave affects everyone in a particular geographical area – humans, animals & our rich flora became vulnerable. People living in water scarcity pockets with poor economical conditions , children's, elderly people, people with chronic deisies are more vulnerable in heat wave conditions. People in their ignorance neglect to adopt safety measures then became victims of the heat wave Heat Wave measures have been mostly preventive in nature. However, prolonged summers, increased temperature and climatic changes require designing adaptive measures and building resilience in the informal sector (vulnerability assessment and alternate livelihood generation of the vulnerable population) along with the preventive actions.

Objective of HAP :

The Heat wave Action Plan aims to provide a framework for developing plans for the preparedness, implementation, interagency coordination and impact evaluation of heat wave response activities at districts, Municipality, Block and Panchayat level that reduce the negative impact of extreme heat. The primary objective is to alert those at risk of heat-related illness in places where extreme heat conditions either exist or are imminent, and to take appropriate precautions. The plan also calls for preparedness measure to protect livestock/animals as extreme heat causes significant stress to them as well. The heat wave action plan intends to mobilize departments and communities to help protect communities, neighbors, friend, relatives and themselves against avoidable health problems during spells of very hot weather. The Plan also intends to help early warning agencies as well as the media to be proactive on steps taken to negate heat wave impacts. The administrative/preventive actions that need to be taken by multiple agencies/departments in Gajapati district. All blocks /cities/town, Tahasils can learn from their/others' experiences and develop a plan to deal with heat wave effectively.

Key Strategies:

Severe and extended heat waves can cause disruption to general, social and economic services. All district level, block level, tahasil and GP level Officers will have play a critical role to play in preparing and responding to heat waves at the local level, working closely with health and other related departments on a long-term strategic plan. Gajapati District Heat wave Action Plan – 2023

- Ensure preparedness and convergence between departments and other stakeholders.
- Establish Early Warning System and communication systems
- Developing inter-agency response plan and coordination in field
- Preparedness at the local level for health eventualities
- Health care system capacity building
- Public awareness and community outreach
- Collaboration with private, non-government and civil society
- Assessing the impact - feedback for reviewing and updating the plan

Rational For Preparation of HAP (Heat Action Plan)

Climate change is causing an increase in severity and frequency of extreme weather events and disasters. Heat waves are among the most dangerous of natural hazards, but rarely receive adequate attention. They often lack the spectacular and sudden violence of other hazards, such as tropical cyclones or flash floods. Even the related death tolls are not always immediately obvious. Increased heat waves have become more common with the increasing rate of global temperatures. Extreme heat can lead to dangerous, even deadly, health consequences, including heat stress and heatstroke. India is also vulnerable to such impacts of climate change and the heat wave casualties over the past decades have increased. There have been 25,716 deaths recorded from 1992 to 2016 in various parts of the country due to extreme heat wave. There could have been many possible reasons, which are going to be exacerbated in coming years with growing urbanization, population and industrialization. The problem is further going to be magnified with ongoing climate change. According to estimates, the scenario is likely to become aggravated in coming years, and the World Meteorological Organization (WMO) predicts heat related fatalities will double in less than 20 years. There are number of evidences suggesting that heat-related risks might be reduced through systematic development of heat wave early warning systems, alerting decision-makers and the general public to impending dangerous hot weather. It is important that public-health measures and advice on how to avoid negative health outcomes associated with hot-weather extremes are elaborated in advance. Odisha having a semi-arid climate records high day time temperature which are being more aggravated every year by the rising global temperatures. Gajapati district of Odisha recorded the day high time temperature as touches to 41 to 41 degrees in summer with high humidity that became more exacerbate for human health. . This is India's first Climate Resilience Heat Action Plan for rural settings and block level heat action plan. On the ground climate preparedness actions, like heat action plan, are crucial components to the global fight against climate change and are particularly focused on protecting the communities that are most vulnerable to the short and long term effects of climate change. It is hoped that the HAP will act as a catalyst for bringing together key players from line department and policy-makers, as well as the general public, for initiating action concerning the overall management of heat as a hazard. Growing concerns over climate change have brought to the fore three important aspects: adaptation, disaster risk reduction and the need for climate information and services to support these. The HAP brings together these three facets and exemplifies an effective demonstration of disaster risk reduction in practice. We expect this plan to enable various departments of Gajapati district to provide effective strategy prevention and management of climate sensitive diseases and heat related illnesses. The Plan creates immediate and longer-term actions to increase preparedness, information-sharing, and response coordination to reduce the health impacts of extreme heat on vulnerable populations.

Definition Heat Wave:

In India, heat wave is considered if maximum temperature of a station reaches at least 40°C or more for plains, 37°C or more for coastal stations and at least 30°C or more for hilly regions. Following criteria are used to declare a heat wave:

- A. Based on departure from normal**
 - *Heat Wave:* Departure from normal is 4.5°C to 6.4°C
 - *Severe Heat Wave:* Departure from normal is > 6.4°C
- B. Based on Actual Maximum Temperature (for plains only)**
 - *Heat Wave:* When actual maximum temperature $\geq 45^{\circ}\text{C}$
 - *Severe Heat Wave:* When actual maximum temperature $\geq 47^{\circ}\text{C}$

To declare a heat wave, the above criteria should be met at least at two stations in a Meteorological subdivision for at least two consecutive days. A heat wave will be declared on the second day.

CHAPTER -II DISTRICT PROFILE

Gajapati District Profile in Brief:

The history of Gajapati District still echoes the long gone days of the history of Gajapati rulers in the District. The historical documents of the Gajapati District are accounted from the time when, Maharaja Shri Krushna Chandra Gajapati Narayan Deo ascended the throne. The available historical records depict that it was Gajapati Narayan Deo, who took keen steps to form Odisha as a separate province in the Indian Union and finally merged the Paralakhemundi estate to the province of Odisha. The present District of Gajapati came to existence as a separate functioning unit from 2nd October 1992. The Collector and District Magistrate is the administrative head of the district. For smooth running of administration, he is assisted by Additional District Magistrate, Sub-Collector, Block Development Officers, Tahasildars, Deputy Collectors, and other Officers. Paralakhemundi Sub-division is the only subdivision in Gajapati district. One Sub-Collector is in charge of the Sub-Division. For the convenience of revenue administration, the district is divided into 7 tahasils viz. R.Udayagiri, Mohana, Paralakhemundi, Nuagada, Gumma, Kashinagar and Rayagada with one Tahasildar in charge of each Tahasil. For development of rural areas consisting of 1636 villages in 149 Gram Panchayats, the district is divided into 7 Community Development Blocks with one Block Development Officer in charge of each Block. The Community Development Block wise number of Panchayats and villages is given below



Sl. No.	Name of CD Block	No. of Grampanchayats	No. of Villages
1	Mohana	39	506
2	R. Udayagiri	17	247
3	Nuagada	19	188
4	Guma	20	230
5	Kashinagara	12	103
6	Gosani (Paralakhemundi)	21	139
7	Rayagada	21	223
Total		149	1636

Demography:

Gajapati district of Odisha has **total population of 577,817** as per the Census 2011. Out of which 282,882 are males while 294,935 are females. In 2011 there were total 128,523 families residing in Gajapati district.

Sl. No	Total Number of Families/HH	Category		Category				Category (2010-11)	
		Rural	Urban	SC	ST	OBC	GEN	BPL	APL
1	128523	112365	16158	9418	65708	53397		74172	54351

Climate:

Atmospheric temperature varies between **16° to 41° Celsius**. The normal rainfall received in the district is **1403.30 mm**. The average rainfalls of the district during the year 20011 to 2022 are as follows. The District is surrounded by Andhra Pradesh in its South, Ganjam District in its East, Rayagada in its West and Kandhamal in its North. The soil and climate is suitable for plantation of crops and there is a great potential of horticulture development in the District. More than 60 percent of lands are situated in hilly terrain and high lands. Those are mainly suitable for horticulture. Other cultivable lands are coming under medium lands (20 percent) and low lands (15 percent) category.

Last 5 Years Temperature & Rainfall Data of Gajapati District :

Sl No	Year	Average rainfall	Minimum Temperature	Maximum Temperature
01	2018	1403.30	16.00	41.00
02	2019	1403.30	17.00	40.00
03	2020	1403.30	16.5	42.02
04	2021	1403.30	16.5	41.00
05	2022	1403.30	16.00	41.05

Summer Temperature of last 3 years

Sl No	Year	Months			
		April	May	June	Remark
03	2020	39.2	42.2	37	May was the high temp
04	2021	42.2 (01/04/2021)	41	38	April was high temp
05	2022	42.5 (29/05/2022)	41.5	40.7	April was high Temp

The river Vansadhara and Mahendratanya are two important rivers of Gajapati district. The river Vansadhara originated from Lanjigarh area of Kalahandi district and passes through Kashinagar block and flows southwards along the borderline of Gajapati district. The river Mahendratanya has originated from the Mahendragiri range and flows in the westward direction through Rayagada block and then to southward direction through Gosani block. Another river Badanadi flows through western part of Mohana block.

Occurrence of Heat wave : Summer season became oppressive in blocks like Gosani, Kashingar, and in Nuagada block due to high temperature, the other remotes blocks are sourrounded by forest and hills and terrain, forest fire & water scarcity in few pockets of Mohana, R. Udayagiri, Rayagada makes the life of people worse. Ground water Situation : The total annual dynamic groundwater resource or the annual extractable groundwater resources of the district is assessed to be 19861 Ham. The existing gross groundwater draft or extraction in the district stands at 6657 Ham, out of which the irrigation draft is 4876 Ham (~73% of the total draft). The draft for domestic and drinking constitute 25% of the gross draft which is 1671.43 Ham. The annual utilizable resource which remains for irrigation use (after allocation for domestic and drinking up to the year 2025) has been estimated at 13105 Ham. The stage of groundwater development varies between the minimum of 14.95 % in the Mohana block and the xvii maximum of 50.25 % in the Paralakhemundi block, with the average stage of groundwater development for the district as 33.52%. Since last 15 years there are no heat wave related death has been reported in district due to fourfold preparedness by the district administration to curb the heat wave related issues

CHAPTER- III EARLY WARNING DISSEMINATION

Heat wave is a major weather hazards in recent years and have affected different parts of the country. Lightning and Thunderstorms are extremely short term phenomenon. The lightning strikes are instantaneous and it hits within flash of seconds. Thus, it gives very little time to an individual react. These severe weather events cause extensive structural damages, destruction of crops, uprooting of trees and casualties. Every year thousands of people



are dying due to heat wave. Most of the deaths happen in rural areas and in open spaces or in agricultural fields. There is a need to develop an effective early warning dissemination protocol to minimize the loss of life. IMD -Forecast and Issuance of Heat Alert or Heat Warning India Meteorological Department (IMD), Ministry of Earth Sciences, is the nodal agency for providing current and forecast weather information, including warnings for all weather-related hazards for optimum operation of weather-sensitive activities. It provides warning against severe weather phenomena like tropical cyclones, squally winds, heavy rainfall/ snow, thunder-squall, hailstorm, dust storms, heat wave, warm night, fog, cold wave, cold night, ground frost, etc. It also provides real time data and weather prediction of maximum temperature, heat wave warning, extreme temperatures, and heat alerts for vulnerable cities/rural areas. IMD issues forecasts and warnings for all weather related hazards in short to medium range (valid for the next five days) every day as a part of its multi-hazard early warning system.

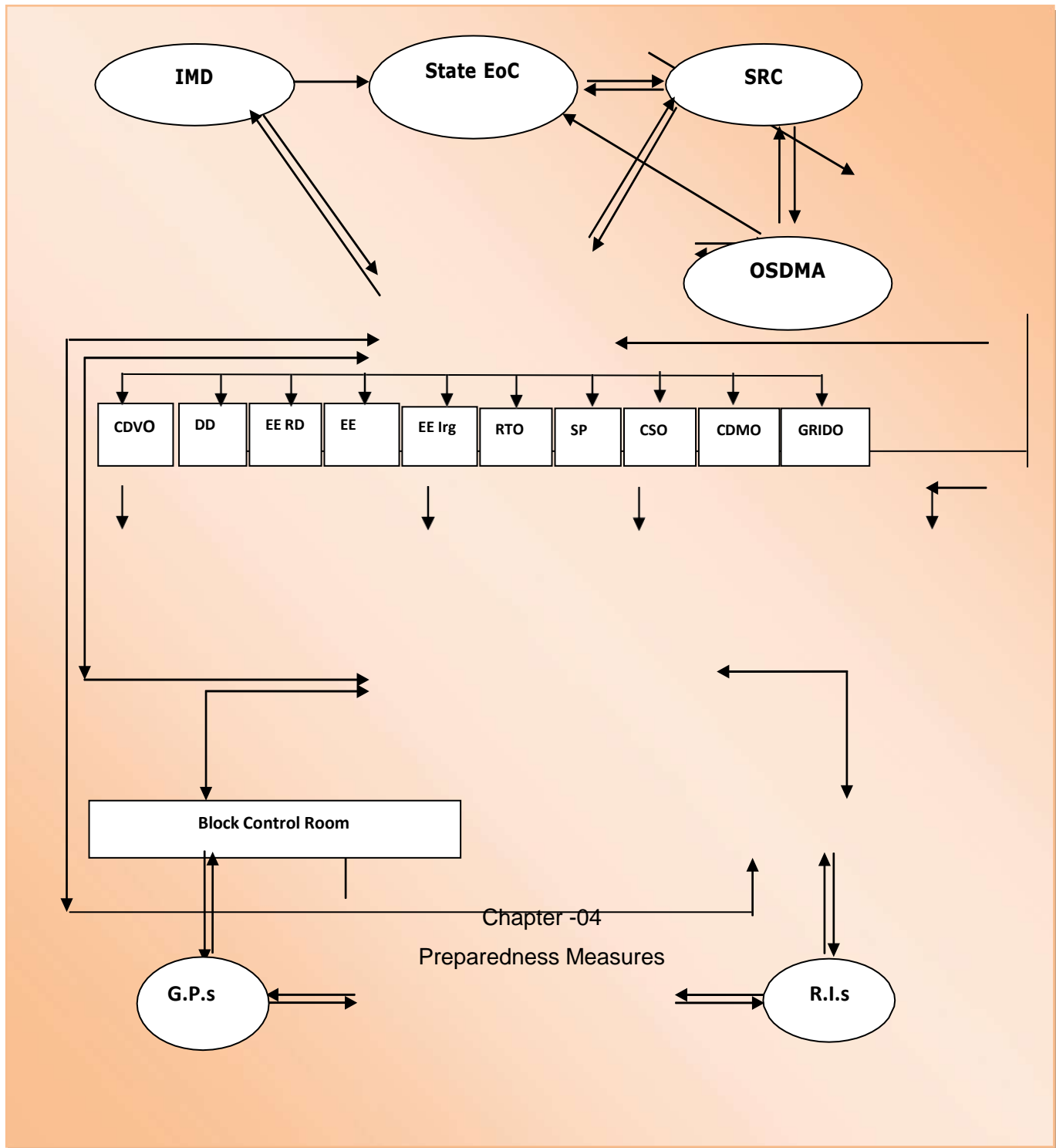
The States should, therefore, carry out their respective threshold assessments for mortality and provide the information to IMD so that it can provide specific warning alerts to those States. Color code, Meaning, Temperature Details and Action Needed Green (No action) Normal Day Maximum temperatures are near normal Comfortable temperature. Cautionary action required. Yellow Alert (Be updated) Heat Alert Heat wave conditions at district level, likely to persist for 2 days Moderate temperature. Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.

Avoid heat exposure once receive the **Orange Alert** (Be prepared) Severe Heat Alert for the day

- (i) Severe heat wave conditions may exist for 2 days.
 - (ii) With varied severity, heat wave is likely to persist for 4 days or more.
High temperature will increase likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. Avoid heat exposure – keep cool. Avoid dehydration. Impact on Vulnerabilities
 - Impacted by water logging and disrupted infrastructure
 - Impacted by shortage of water •
 - Prone to health and fire risks •
 - Prone to shortage of power supply and disrupted infrastructure • Faces additional stress on ecosystems Population impacted
 - Commercial units
 - Urban residents
 - Slum residents
 - Women Children and Students

Color Code	Alert	Warning	Impact	Suggested Actions
Green (No Action)	Normal Day	Nil	Comfortable temperature	No action) cautionary action required
Yellow Alert Heat (Be updated)	Heat Alert	Heat wave Heat conditions at district level, likely to persist for 2 days	Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people	Avoid Heat Exposure
Orange Alert (Be prepared)	Severe Heat Alert for the day	A. Severe heat wave conditions likely to persist for 2 days. ii. B. With varied severity, heat wave is likely to persist for 4 days or more.	Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic disease	Avoid heat exposure–keep cool. Avoid dehydration
Red Alert (Take action)	Extreme Heat Alert for the Day	A. Severe heat Very likely to persist for 2 days. B. Total number of heat/ severe heat wave days likely to exceed 6 days	Very likelihood of developing heat illness and heat stroke in all ages	Extreme care need for vulnerable people

Early Warning Dissemination Flow Chart :



IMD - India Meteorological Department (IMD), Ministry of Earth Sciences, is the nodal agency for providing current and forecast weather information, including warnings for all weather-related hazards for optimum operation of weather-sensitive activities. It provides warning against severe weather phenomena like tropical cyclones, squally winds, heavy rainfall/ snow, thunder-squall, hailstorm, dust

storms, Heat Wave, warm night, fog, cold wave, cold night, ground frost, etc. It also provides real time data and weather prediction of maximum temperature, Heat Wave, extreme temperatures and heat alerts for vulnerable cities/rural areas. IMD has a big network of surface observatories covering entire country to measure various metrological parameters like Temperature, Relative humidity, pressure, wind speed & direction etc. Based on daily maximum temperature station data, climatology of maximum temperature is prepared for the period 1981-2010 to find out normal maximum temperature of the day for the particular station. Thereafter, IMD declares Heat Wave over the region as per its definition. IMD issues temperature forecast & warnings in following range: a) Short to medium range (lead time/validity of 1 to 5 days) b) Extended range (lead time/validity upto 4 weeks) c) Seasonal range (lead time/validity upto 3 months) IMD predicts Heat Wave based on synoptic analysis of various meteorological parameters and from the consensus guidance from various regional & global numerical 4.

A common man may get Heat Wave information from, All India Weather Forecast Bulletin (<https://mausam.imd.gov.in>) and special Heat Wave guidance bulletins (http://internal.imd.gov.in/pages/heatwave_mausam.php) every day from 1 April to 30 June. The Heat Wave information is shared with concerned State Government Authority, Media and other stakeholders like Indian Railway, Health departments, Power Sector etc. The general public is informed through Print & Electronics Media. IMD issues forecasts and warnings for all weather-related hazards in short to medium range (valid for the next five days) every day as a part of its multi-hazard early warning system. These warnings, updated four times a day, are available at <http://www.imd.gov.in/pages/allindiawxforecastbulletin.php>. A new system of exclusively heat-related warnings has been introduced with effect from 03 April 2017. These warnings, valid for the next 5(five) days, are issued around 1600 hours IST daily and are provided to all concerned authorities (Departments of Health, Disaster Management, Indian Red Cross and Indian Medical Association, NDMA etc.) for taking suitable action at their end. A bulletin in extended range with outlook for the next two weeks (for all hazards including Heat Wave) is issued every Thursday (available at <http://www.imd.gov.in/pages/extended.php>). In addition to the above, forecast maps from Climate Forecast System of daily maximum temperatures and their departure from normal for the next 21 days (issued every Thursday) are also available on IMD website (<http://nwp.imd.gov.in>). From 2016, IMD has introduced a system of issuing seasonal temperature outlooks for the next three months. For 2017, the first outlook valid for March to May was issued on 28 February 2017; and the second one valid for April to June was issued on 02 April 2017. These seasonal outlooks are issued in the form of a press release on the IMD website and through electronic and print media. These are also provided to all concerned Chief Secretaries, Disaster Managers and to the health sector through the India Medical Association (IMA). The operational system of weather forecasts and warnings is summarized in the chart below: 24

Odisha State Disaster Management Authority (OSDMA) Temperature Forecast: Specific Range, Time duration and area Now Casting: (lead time / validity of 3 to 6 hours) Short to Medium range: (lead time/ validity of 1 to 5 Days) Extended Range: (lead time/ validity up to 3 weeks) Seasonal Range: (lead time/ validity up to 3 months) It currently provides weather forecast information on the basis of satellite imagery, mathematical modeling, GPS, Sonde monitoring and Doppler radar system. It gives weather forecast taking into account the temperature (both dry bulb temperature and dew point temperature), wind pattern, cloud pattern and a few other parameters. The temperature/ city forecast is done two times a day i.e. at 10 AM, and 6 PM for one week for 16 cities in the State of Odisha. Besides city forecast, forecast along with warnings are also issued for next five days at 10 AM, 1 PM, 6 PM & 9 PM. The 1 PM forecast is forwarded to state agencies and media by fax and E- mails. IMD gives a Heat Wave forecast particularly during the months from March to mid June.

SATRAK AAP

Information dissemination on Heat Wave through SATARK application: SATARK is a decision support system based on the Web / Smartphone that helps to provide early warning information for different risks. It is an application developed by OSDMA in collaboration with RIMES. Heat Wave advisory system uses IMD defined Heat Wave thresholds to automatically generate advisories based on forecast and disseminate advisories to the users well ahead of time about the likelihood of a Heat Wave along with precautionary measures to be taken. Every day, the SATARK system transmits the 10-day forecast information to the concerned government officials at State, District and Block level through e-mail automatically. It has improved risk communication in the state. "SATARK" mobile application was developed both in IOS and Android, providing block level alerts and preparedness advisories (Do's and Don'ts) in Odia and English languages. The application is incorporated with observation and forecast data from Indian Meteorological Department (IMD) and the best available forecast products. Block level and location specific alerts are issued through Mobile App, E-Mail, SMS and other available sources. The advisories are freely available through SATARK mobile application. In the near future, all the forecast information provided by the application will include the value-added information provided by IMD-RC.

Institutional Mechanism for Dissemination of Early Warning Message in District :

- (i) There is a need of written institutional mechanism by notification from DDMA earmarking responsibility and accountability of BDOs, panchayat level functionaries and CSOs/NGOs in ensuring dissemination and its compliance.
- (ii) An Incident Response System (IRS) for Block and below level needs to be notified making functionaries responsible, accountable and monitored.

- (iii) Fund- The state government/district administration may keep suitable fund for dissemination. c) Target Group and location along with Communication Protocol Target group and geographical hotspots need to be identified for dissemination of early warning.

A. At District Level- DDMA & DEOC, Gajapati

- Disseminate information received from the IMD and state specific warning to the public through print/electronic/social and other mass media at the local level.
- Ensure push SMS by telecom service
- Operators to all active mobile connections in the affected area. To ensure cutting off of power supply and its
- Restoration Activation the all concerned departments, & activation of control rooms
- Specific warning is received Ensure early warning information to reach
- last mile through SMS, Whatsapp group at different level. Disseminate Dos' and Don'ts and other IEC material in local language
- NGOs/Active people may be involved in dissemination of early warning/ forecast at village level and also conducting workshop/ seminars/ media briefs in different village/ cities.

B. Role of Block Administration in Gajapati

- The warning messages should contain safety directions to be followed; for e.g.; the now casting messages for severe heat wave/thunderstorm/lighting may ask the public to take a safe shelter or move indoors in the wake of an inevitable disaster;
- The message should be short, clear, in simple local language and action oriented;
- Flash messages / tickers / 'breaking news' to be displayed on the local TV news channels; Radio announcements through public and private broadcasters;
- Flash messages / SMS, WhatsApp group to the users by the mobile operators in the affected areas;
- In case of rural areas and small towns, an early warning may be issued by the local authorities using channelized WhatsApp group, loudspeakers, sirens, etc.;
- Social Media, including group messaging services, should be extensively used. e) Communication Strategy and Drafting of Key Do's and Don'ts

C. Role Panchayat/ Village level –

- Share early warning information to reach at community through SMS, WhatsApp, group, loudspeaker etc. Create awareness through IEC in schools and clubs ,
- Anganwadi, village meeting PDS shop, MNREGA workers Display IEC material and share to different groups/ community and individuals
- Share early warning information to villagers and community
- Distribute IEC materials

D.Role of NGO/CSO -

- Discussion in various meetings NGOs/ Active people may be involved in awareness
- Dissemination of early warning/ forecast at village level through meetings

CHAPTER-IV PREPAREDNESS MEASURES

DDMA Meeting –

A. District level Preparedness Meeting of Gajapati district held on 04.03.2023, the meeting was chaired by the Chairman –DDMA, Collector & District Magistrate of District. District Nodal Officer Disaster Management & Coordination, ADM (G) presided this, all department officers, stakeholders and NGO/CSO representatives were present in this meeting. . Proceeding Preparation and Communicated to all Line departments for their immediate action as per the



The heat-wave action plan is intended to mobilize individuals and communities to help protect their neighbors, friends, relatives, and themselves against avoidable health problems during spells of very hot weather in highly vulnerable blocks of . Broadcast media and alerting agencies may also find this plan useful. Severe and extended heat-waves can also cause disruption to general, social and economic services. For this reason, Government agencies will have a critical role to play in preparing and responding to heat waves at a local level, working closely with health and other related departments on long term strategic plan. Establish Early Warning System and Inter-Agency Coordination to alert residents on predicted high and extreme temperatures. Who will do what, when, and how is made clear to individuals and units of key departments, especially for health.

Capacity building / training programme for health care professionals at local level to recognize and respond to heat-related illnesses, particularly during extreme heat events.

These training programmes should focus on medical officers, paramedical staff and community health staff so that they can effectively prevent and manage heat-related medical issues to reduce mortality and morbidity. Individuals, community groups, and the media are also essential in fighting the effects of extreme heat. Individuals can take specific preventative steps to protect themselves, their

families, and their communities from harmful heat waves including. Talking with their doctor or Health Centre about early signs of heat wave .

Limiting heavy work during extreme heat -Drinking water -Staying out of the sun, Wearing light clothing -Checking on neighbors— informing their fellow community members about how to keep cool and protect themselves from— heat. The media plays an essential awareness-building role by sharing news about health threats, and increases public protection by running ads and providing local resources information. While summer is defined as spanning March, April, and May, Odisha hottest temperatures can run from March through June, with temperatures generally peaking in May and warm days through November.

Prevention & Mitigation Measures

ULB (Urban Local Bodies) Kashingar & Paralakhemundi : Urban residents living in slums have fewer options available to adapt to rising temperatures. This increases their vulnerability to heat and results in these communities facing the adverse impacts of extreme heat. In their issue brief “Rising Temperatures, Deadly Threat”, the NRDC and IIPH Gandhinagar identified several specific factors that increase the vulnerability of slum residents to extreme heat: Higher Exposure to Extreme Heat: Slum residents are more likely to be exposed | to heat since they work primarily in the open or in unventilated conditions, they live in homes constructed of heat-trapping materials such as tin or tarpaulin roofs and their communities lack trees and shade. Greater Susceptibility to Health Effects of Extreme Heat: Lack of access to clean | water, poor sanitation, over-crowding, malnutrition and a high prevalence of undiagnosed and untreated chronic medical conditions due to poor access to healthcare heighten slum community members’ susceptibility to the effects of extreme heat on health.

Heat Action Plan for Odisha 2023 Fewer Adaptation Options Available: Slum residents lack control over their | home and work environments with limited access to (and inability to afford) reliable electrical and cooling methods like fans, air coolers and air conditioning, insufficient access to cooling spaces and a lack of knowledge on precautionary health measures. All these factors reduce slum residents’ prospects to adapt to increasing temperatures.

An affordable solution is cool roofs. A cool roof is a white refl ective roof that stays cool in the sun by minimizing heat absorption and reflecting thermal radiation to help dissipate the solar heat gain. Studies have shown that cool roofs can be up to 30° C cooler than conventional roofs, and can bring the indoor temperatures down by 3-5° C. When implemented on a large scale, cool roofs can reduce the Urban Heat Island (UHI) eff ect in a city. Cool roofs include coatings and treatments such as lime-based whitewash, white tarp, white china mosaic tiles and acrylic resin coating and provide an affordable

solution for thermal comfort. Local materials like – leafs or paddy straw may be affixed on tin sheet or asebestos sheet to reduce the room temperature.

Department wise Action Plan: -

A. DIPRO (District Information and Public Relation Officer)

- DIPRO : In a massive scale awareness on require on dos and don'ts on heat wave through IEC (Information Education Communication) posters, leaflets, brochures, wall paintings/ street play etc
- Affix of Posters and wall painting in prominent locations (Market/ Bus stand/ Railway stations & in Major offices)
- Street play and nuked Nataka, dasakathaia by using local artists for massive awareness
- Awareness message on Heat Wave precautions and preparedness through print media and tele media
- Using of SATARK Aap of OSDMA for getting update on weather and heat wave related warnings
- Taking support of local NGO/ Civil society and likeminded organization for the larger dissemination of awareness message.

B. RWSS & PHED, Executive Officers, NAC & Municipality: -

- Procurement all the spares and equipments in advance and keep the stock in readiness
- Immediate identification of the defunct tube wells in villages and NAC and Municipality areas
- Plan for speedy repair of the defunct tubewells within 24 hrs of the report
- Water quality technician's must ensure water quality whether the water is potable or not, if its not potable immediatly the department should affix red mark on it with warning signs
- PHED must take adequate steps for the opening of **water kiosk(JalChhatra)** in most prominent locations (Market areas/ Traffic square/ Bus stand/ Railway Stations etc of the cities . The water kiosk must provide good& cool water with utmost hygiene and cleanliness. Water must be kept in cool or shed place under personal monitoring
- For monitoring water Kiosk conditions on daily basis it should be monitor by joint team formed in an advance. daily water kiosk wise report must be share with DEOC with authentication



- Similarly pipe water supply status must be monitored leakage/ damaged pipe lines needs to repair immediately
- Already identified water scarcity streets/ villages needs water tanker for ensuring water supply in summer seasons
- Water tankers deployed by PHED/ RWSSS all these tankers must be in good running conditions and water tank must have proper clean and leakage free so that water will not be waste during transportation
- All the ward level officers of PHED in urban areas & RWSS JE in rural areas needs to visit water scarcity pockets on daily basis and apprise the authority
- Peoples grievances pertain to water issues during summer must be addressed within 24 hrs of the complaint received, JE-RWSS in rural areas & PHED Engineers in urban areas., if failed in it disciplinary actions need to be taken against the concern officer
- An active toll free number must be circulated to community for sharing their grievance and complaints pertain to water issues
- Peoples complaint register shall made available in control room at NAC & Municipality

C. Animal Husbandry

- Immediate formation of task force for heat wave monitoring
- Opening of control rooms (24x7) at block & district veterinary with adequate control room staffs
- In a massive scale awareness require at community level on special care of pets/ domestic animals during summer seasons
- Special attentions need for the stray animals roaming in streets and villages
- Temporary summer veterinary camps may be organized in GP or in block for taking care of animals
- Special fodder programs needs to be accelerated in fodder crisis areas
- Water trough vats or tanker may be arranged for the stray animals
- Advance procurement of medicines for the animal's care
- Regular health animals checkups programs needs to be planned in vulnerable areas through mobile veterinary team



Large dissemination of IEC (Information education & communication) materials on dos and don'ts needs to be circulated

D. School & Mass Education:

- Timing and School colleges will be rescheduled keeping in view of summer season
- First Aid Box (ORS) must have kept inside school premises.
- Teacher must be vigilant and active on health conditions of students
- Potable water container must have kept inside the school
- Teacher should monitor student's mobility
- Enough shed may be arranged inside school premises
- Students should literate and aware about heat wave and heat related illnesses so that they will play as catalyst in community to spread the message on heat wave preparedness
- Students should have advised to wear clean uniform and foot wear
- Students needs to be asked to come to class with an umbrella and water bottle
- Fans fitted inside class rooms must be in running conditions
- Schools bus shall be made available of first aid and water facility
- School teachers & Physical Education Teacher must have basic understanding on first aid to a heat stroke and heat stress students
- Local PHC/ CHC's contact details shall be made available



E. DSWO (District Social Welfare Office)

- All AWCs (Anganwadi centers) timing will be re-scheduled from 6.30 A.M to 9.00 A.M.
- First aid and clean water shall be available in AWC along with ORS sachets
- Periodically health checkup needs to be done by the local health practices
- IEC materials on heat wave needs to be displayed on all AWC
- Defunct tubell inside/ nearby AWC needs to be repair immediately by taking support of local administrative authority
- Good, fresh hot cooked meals may be provided to the children's under the supplementary nutrition program
- AWC centers hygiene and cleanness shall be maintained

F. Health Department

- Massive awareness creation by department on Do's & Don'ts by circulating posters and flex through ANM, ASHA workers.
- All the hospitals (PHC, CHC, and DDH) are well equipped with the dedicated trained staffs to deal with the heat stroke & heat stress patients.
- Special cooling chambers needs to be ready d with air conditions and air cooler to treat the heat stress patients.
- Sufficient medicine & ORS procured from the department and sent to different CHC's & PHC to deal with the heat stress and heat stroke patients
- Strengthening 24 x 7 control rooms opened in all the PHC, CHC to attain the call on heat wave and heat stress related
- Mobile vans are deployed to peak up the heat stroke and heat stress patients.
- Rapid Response Team (RRT) needs to be formed at District Headquarter & Block Headquarter to tackle all kinds of water borne, Diarrhea, Heat Stoke durin g summer season
- Earmarked bed has kept in readiness at a cool well ventilated space in all health institution.
- Cold water has stored in earthen pots in each health institutions for ensure clean and potable water for all.
- ILR and deep freezer kept in redness all PHC/CHC. ORS corner has opened at all health institutions at OPD / IPD / other places
- Special attention has given towards high risk patient like geriatric / pediatric / pregnant women etc. Poster, pamphlets has been supplied by DHH to Block level.
- Basic training to 108 ambulance drivers on safe transport of heat stress and heat stroke patients
- All ASHA, ANM, Medical Practicners will download the OSDMA coined SATARK aap on their smart phones to get updates on weather related information
- Maintain proper database on health related morbidity due to heat stress



G. Road and Transport Office (RTO)

- Timing of public transport facilities like buses shall be reschedule, in peak time 11:00 AM to 3:00 PM buses plying inside district needs to be restricted even inter state and inter districts buses will follow this order

- Over –crowding passenger buses, autos, needs to be avoided local authority needs to monitor if violation made then fine needs to be imposed
- Bus should keep first aid with ORS Packets as well cool water container in side buses
- Enforcement team will be formed to check the plying time & Pamphlet will be pasted in backside of every bus.
- In major junctions of National High ways and State High Ways may have water kiosk
- Temporary passenger sheds needs to be installed in bus stops
- Proper checking will have to be made by the enforcement wing of this Department and penalty be imposed against the earning transporters/ operators
- The control rooms at district level should function around the clock during the period of Heat Wave
- The bus/truck associations of the district and the local NGOs should suitably be instructed to involve themselves in public awareness campaigns on Heat Wave

H. District Labor Office (DLO)

- Working hour will be rescheduled; there will be no work from 11:00 AM to 3:00 PM.
- All the worksite will be avail with safe and clean water with First Aid Box.
- Time to time it will be monitored and supervised by the District Labor officer and team.
- Contractors and labor association in district needs an orientation regarding adverse impacts of heat wave
- Awareness programme will be conducted in all industrial units and construction projects etc. to sensitize the laborers and workers on risks, signs and symptoms of heat stress.
- Control rooms must be opened

I. Forest & Environment Department :

- Wall Painting on public awareness made in important places in and around of forest.
- Continuous
- VSS (Vana Surakshya Samiti) and local volunteers needs to be motivated to keep the forest safe from the unprecedented forest fire during the summer season.



- Task force formed at the village level and their orientation program organized how to inform communities regarding forest fire as well how to drowse forest fire immediately before further spread.
- Renovation of the 47 identified traditional water bodies inside the forest completed it will ensure availability of water for the wild animals. Construction of 11 no's check dams, 3 no's WHS (water harvesting structure) in the streams for the retention of the water flow already completed.
- Fire prone ranges ofR. Udayagiri, Mohana, & Ramagiri ranges special action plan has been prepared with well equipped team members.
- Total 8no's of Team formed in the district by taking different experts with 10 person in each team is monitor and work on forest fire issues.
- Timely coordination with fire department for the immediate drowse of the forest fire
- Continuous meeting with villagers at village level by the VSS/ community level regarding forest protection from fire
- Award and recognition for community may be arranged by forest department for their outstanding work on forest protection

J. Energy (Power)

- Advance procurement of all electrical equipment's for the repair and
- Power supply will not be affected during Summer-2022 except in any emergency situation such as under frequency, tripping of power transformers, feeder faults, planned shun for execution of Govt. work with prior announcement etc. |
- TPSODL will abide with the guidance issued to it by District Administration instructions from time to time. |
- In case of any emergency maintenance work, the same will be done only during morning hours when the effect of heat is less. |
- In case of power interruption, the same will be intimated to the public through electronic media such as TV scrolling, twitter and public announcements etc. |
- Lift irrigation points that are inoperative will be provided with power supply. |
- TPSODL has to take steps for the operation of Control rooms at district & block level
- District Headquarter Hospitals are being provided with uninterrupted power supply through dedicated feeders. |
- All PHED and RD water supply points will be ensured steady power supply. |

- All the contractors/ agencies working under TPSODL- Gajapati have been geared up to meet any exigency such as repair, maintenance work etc. |
- Preventive maintenance works have been planned during March to April to rectify jumpers, tilted poles, low ground sagging and tree branch cutting with respect to all 33KV and 11KV feeder

K. Fire Department :-

- District Fire Office and Block Fire Station needs to be equipped with MFE (Motor fire engine) with fully loaded water tanker to ensure 24x7 services during the eventualities or fire incidents.
- There are total 10 MFE deployed in the district (3 Nos at the Head Quarter & 7 No's are in the block fire station.
- From the month of March total 7 nos of forest fire call attended by the fire personal. Dedicated toll free number of 112 circulated among the public.
- All fire brigade team needs to stay in their respective fire stations to attend urgent fire accident call
- All the equipment's and machinery of all fires stations shall be made available in functional conditions

L. District Panchayat Office (DPO)

- All Panchayat office shall made arrangement for the opening of the Water Kiosk (JalChhatra) inside Panchayat office
- PEO (Panchayat Executive Officer) of concern panchayat regularly update the defunct tube well status of Gram Panchayat as well immediate coordination with RWSS JE for the repair of the defunc, tub well within 2 4hrs
- Imposition of restrictions of MGNREGA work from morning 11:00 AM to 3:00 PM afternoon
- Shed & water facilities shall be made available in all MGNRGA & constructions work site
- Must take adequate steps for the massive awareness's campagain inside the GP through ASHA, AWC workers on heat wave preparedness as well dos and don'ts
- PEO will be the nodal officer of Panchyata to address drinking water issues, on regular basis he/ she will hold a meeting at GP level to know the water crisisissues, immediate coordinate with local BDO & JE RWSS for the solve of water crisis
- All BDO's must take a weekly review meeting with all block level officials and PEOs to assess the water crisis & heat wave issues during summer season
- BDO's should ensure to open one dedicated heat wave controls room in their office premises. The control room should be functional from 6:00 AM to Evening 9:00 PM

- Shed & water arrangement shall be made for stray animals through providing open water container

M. District Emergency Operation Center (DEOC) Gajapati

- All Staffs of DEOC will work on the heat wave situation,
- Regular coordination with various line departments to know the status of preparedness
- Opening of dedicated heat wave control room (24x7) at district office with deployment adequate
- Circulation of heat wave awareness posters to blocks & tahasil after procuring from OSDMA
- Prepare a database on heat wave related issues in summer seasons of 2023

N. ULB -urban local bodies (Paralakhemundi & Kashinagar)

- Awareness creation among the Urban Community by using posters & flex on heat wave preparedness, affixing posters and flex in prominent locations like – daily market, weekly market
- Wall painting and posters on dos and don'ts on heat wave precautions
- Deployment of water tankers in an advancement for transporting water to water scarcity pockets in urban areas immediately
- Coordination with TPSODL officers for solving power outage issues & load shedding problems
- Opening of Water Kiosk in prominent places. Kashinagar NAC & Paralakhemundi Municipality in major crowded places
- Water kiosk managed & monitored by the Mission Shakti Group (MSG),
- Regular check up of water kiosk to monitor quality of water as well hygiene conditions surrounding areas of water kiosk
- Arrangement of water and shed for the stray animals
- Coordination with local Community organization and NGO for ensuring their support and cooperation on opening of water kiosk & water for stray animals
- Opening of dedicated control room (6 :00 AM ~9:00 PM) in all Municipality & NAC office to address water crisis and power crisis issues
- Regular coordination meeting with PHED/ TPSODL on water and power crisis by executive officer
- Immediate take redresaal measures on the basis of water crisis and power crisis news on press clippings, tele media, and on social media (Facebook, twitter & Instagram)

O. Sub Collector & Tahasildar

- Joint enquiry will be conducted for heatstroke death and preliminary report will be uploaded in DAMPS portal within 24 hour.
- Camp court timing will be avoided between 11.A.M to 3 P.M.
- Guide the subordinate officers on heat wave management
- As magistrate has all the right to visit and oversee Water Kisok (Jal chhatra) Kendra
- May visit the labor intensive work site in their jurisdiction to oversee heat wave

P. NGO & CSO (Civil Society Organization)

- Local NGO and CSO could play an important role in heat wave management in their respective operational areas
- They may be engaged in awareness campaign on dos & don't through their community kevel workers
- May support in opening and management of Water Kiosk (Jal Chhatra)
- May counsel the local contractors and MGNREGA card holders on heat wave awareness
- May counsel and orient school teachers and students on heat wave management

Wellness Plan of All During Heat Wave

The Heat wave disaster usually occurs from March to June in Odisha. This year the summer is heating up as much earlier & it is predicated to have possible severe heat wave. Keeping in view the aforesaid context the preparedness for follows in order to manage and prevent Heat Stress disorders effectively in the district.

A Rapid Response Team has been formed at District Headquarter to tackle all kinds of Natural calamity, Diarrhea, Heat Stoke etc.

Name of the RRT Team Member:

1. Dr. M.M Ali DPHO
2. Dr. Anand Samantray. ADPHO(DC)
3. Dr. Sarat Chandra Mohapatra, Epidemiologist
4. Sri. G.R.K Naidu MPHS(M).
5. Sri. Arun Kumar Patra, LT,DPHL PKD.
6. Sri. Nurshingh Gantayat Attendant, CDMO, PKD.

A Rapid Response Teams have also been formed at Block Headquarter to tackle all kinds of Natural calamity, Heat Stoke etc. Following staffs are Block RRT member.

Medical Officer, MPHS, Staff Nurse, ANM, Pharmacist, LT & Attendant

Name of the CHC	Mobile No
Mohana	MO- 9439990198,MPHS- 9439984028
Gumma	MO-9439984191,MPHS-9439984220
Gurandi	MO- 9439985280,MPHS- 9439985318
Rayagada	MO- 9439984148,MPHS- 9439984154
B.K.Pada	MO- 9439986897,MPHS- 9439984110
R.Udayagiri	MO-9439984074,MPHS-9439984085
Kasinagar	MO-9439984242,MPHS--9439984247

DISTRICT & BLOCK MONITORING & SUPERVISION TEAM OF GAJAPATI DIST

Name of the CHC	Zonal Officer	Sub-Zonal Officer
Kasinagar	ADPHO(VBD)	MO, I/C, CHC
Gumma	ADPHO(DC)	MO, I/C, CHC
Gurandi	ADPHO, FW	MO, I/C, CHC
Rayagada	ADPHO(TB)	MO, I/C, CHC
B.K.Pada	ADPHO(Lep)	MO, I/C, CHC
R.Udayagiri	Epidemiologist	MO, I/C, CHC
Mohana	DPHO	MO, I/C, CHC

I.E.C

An intensive IEC campaign has conducted in order to bring a general awareness among the people by the district. All the Health institution has been issued instruction to utilize the service of PHEOs, MPHS (M&F), MPHWH (M&F), AWWs & ASHAs for propagation of the message regarding dos & donts. In Odiya & telugu . It is also to be discussed in the GKS meeting at Sub-center level. The leaflets and posters will be distributed and displayed in weekly markets, public Mellas and other crowded places. Steps have been initiated to involve Panchyat level members and NGOs for the success of IEC campaign.

SENSITIZATION OF HEALTH PERSONAL

All the MPHS (M&F), MPHWS (M&F), AWWs & ASHAs are sensitized how to manage the Heat Stress disorders at their level. The sensitization workshops conducted in the monthly meeting of PHCs, CHCs and the CDPOs and MOs were sensitized on the above topic in the district monthly meeting.

INFRASTRUCTURE AND LOGISTICS

- i. Earmarked bed has kept in readiness at a cool well ventilated space in all health institution.
- ii. In the DHH, SDH & CHC/ PHC where ever possible A.C / Coolers are made available & to utilized in the heat stroke room.
- iii. Provision of ice & ice cold water at DHH / SDH / Block CHC & PHC as per requirement & availability.
- iv. Cold water has stored in earthen pots in each health institutions.
- v. ILR and deep freezer kept in readiness all PHC/CHC.
- vi. ORS corner has opened at all health institutions at OPD / IPD / other places
- vii. Special attention has given towards high risk patient like geriatric / pediatric / pregnant women etc.
- viii. Co-ordinate with private hospital and collect heat related morbidity & mortality data.
- ix. All ambulances and MHU & other CHC vehicle has been kept in roadworthiness for referral of patients as and required.
- x. All MPHS (M/F) and other touring person are instructed to visit in the election polling station in the time of election.
- xi. ASHA are ensuring availability of water pot, ORS powder & slide in the polling station.
- xii. Under Every GKS one Jalachatra are opened and functioning at each GKS level. The Ownership was taken by AWW.
- Xi. There are 1394 GKS in Gajapati district.
- Xii. Rs. 250 will be given from the GKS untied fund to AWW .
- Xiii. Jalachatra are functioning from March -15,2019 to June 15,2019.

STOCK AND STORE OF LIFE SAVING MEDICINES AND EQUIPMENTS

The central store of the District has adequate quantities of life saving medicines and equipments as per norm to all the peripheral health institution. Further it has been supplied to the Sub centers and AWC by the MO, I/C.

ORS--- Adequate amount to be produced & distributed in the field for use.

- o 200 Pkts --- AWC
- o 400 Pkts --- SC
- o 1000 Pkts --- PHC(N) / PHC/ UGPHC / CHC
- o 2500 Pkts. --- Sub Divisional Hospital / Area Hospital
- o 5000 Pkts. ---DHH

ORS booth is functioning in Health institutions. Staff is conversant with the preparation of ORS. (One Pkt of ORS to be dissolved in one liter of drinking water & to be used with in 24 hrs.)

- All ILR deep freezers of the Health Institutions are utilizing for preparation of ice packs.

MONITORING

Control rooms are functioning in all PHCs/ CHCs/ UGPHC and DHH, Paralakhemundi from March-15th to June. The daily report from all reporting units giving details of attack and death should be transmitted timely to District Surveillance Unit (IDSP), so that the DSU can transmit the same to State Surveillance Unit (SSU), DHS, Orissa in time.

All the Reports regarding death of a person due to heat stress disorder either at work place or any other area when received should be jointly inquired by local revenue officer and local Medical officer of a CHC / PHC, SDH & DHH. The report to that effect should be sent to District Magistrate & Collector & the copy of the report need to be sent immediately to CDMO & State Control Room over Fax or e-mail.

**CHAPTER-V
ANNEXURE
FORM-I**

Information to be submitted with every joint enquiry report of Heatstroke Deaths

SI No.	Name of the Deceased with Address (if unidentified mention unidentified)	Age	Gender (Male / Female/Third Gender)	APL/BPL	Occupation of Deceased (Farmer/ Labour/ Hawker/ Others to be specified)	Place of Attack					Date & Time of Attack of Heat Stroke	Date and Time of death	Whether the Person was Hospitalized?		Whether Cause of death (heat wave) confirmed by the Medical Officer (Yes/No)	Any antecedent illness / chronic disease present (ask the family member)	Cause of Death as per joint enquiry report	Whether post mortem conducted? (Yes/No)	Remarks	
						Name of the Block/ ULB	Name of the village / Ward	Rural/ Urban	Indoor/ Outdoor	Location (Crop Field / Market / Busstop / Street / Home/ Office/ Any Other)			(Yes /No)	If Yes Name of the Hospital / Health Clinic						
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
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16																				
17																				
18																				
19																				
20																				

(Name & Designation of the Reporting Officer)

(Signature with Seal)

Form II

**Details of Death reported due to Heat Wave, Joint Enquiry & Payment of Ex-Gratia
(Record to be maintained by Tahasil & Dist. Office and Weekly report to be submitted by Dist. Office to SRC)**

District :

Year :

Sl. No.	Name of the Deceased	Original Address of the Deceased (Village/ GP/ULB)	Age	Gender (Male / Female / Third Gender)	Economic Status (APL / BPL)	Occupation of Deceased (Farmer/ Labour/ Hawker/Others to be specified)	Name of the Block/ ULB	Place of Attack of Heat stroke	Name of the village / Ward	Rural/ Urban	Indoor/ Outdoor		
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Date and Time of death	Maximum Temperature of the Day (in °c) recorded at the nearest weather station, (mention the location of the Weather station)	Whether the Person was Hospitalized?		Maximum Temperature recorded (Retail & Oral)	Date and time of Post Mortem Conducted	Date of Joint enquiry by the local revenue and medical officer	Any antecedent illness / chronic disease present (ask the family member)	Remark regarding cause of death		No and date of Sanction order of Ex-gratia	Name of the NOK	Date of Payment of Ex-Gratia
		(Yes /No)	If Yes Name of the Hospital / Health Clinic					As per post mortem report of treating physician	As per joint enquiry report			
15	16	17	18	19	20	21	22	23	24	25	26	27

HEALTH FACILITY FORMAT

Daily line List of **Suspected Heat Stroke CASES[#]** at Health Facility
(From Medicine, Pediatrics 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 Hospital/Civil Hospital 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 + Pediatrics):

Daily line Heat Related Illnesses Surveillance

The Heat Related Illnesses surveillance was started in year 2015. The Integrated Disease Surveillance Programme (IDSP) was conducting the surveillance at central, state and district level. Since year 2020 the National Programme on Climate Change and Human Health (NPCCHH) has started the surveillance.

Revised Formats
 FORMAT 1 (A): List of **Suspected Heat Stroke CASES[#]** at Health Facility

Sl. 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 Heat stroke: Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature $\geq 40\text{ }^{\circ}\text{C}/\geq 104\text{ }^{\circ}\text{F}$** , 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 heat wave season i.e., March to*

FORMAT 1 (B): HEALTH FACILITY FORMAT

Daily line List of **Suspected Heat Stroke DEATHS[#]** and **Confirmed CVD DEATHS^{*}**
(From Medicine, Paediatrics and Casualty/Emergency department)
 (To be kept at health facility for record)

Name of health facility: _____					Date of reporting: ___/___/_____			
Block: _____ District: _____								
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 Heat Stroke DEATHS and Confirmed CVD DEATHS								
Sl. No.	Registration Number	Name	Age	Sex (M/F)	Address		Deaths (tick the box)	
					Block	District	Suspected Heat stroke death ^{##}	Confirmed CVD death
Total								

Name of person filling the form:

Name of Facility In-Charge:

Designation:

Signature of Facility In-Charge:

Signature:

Date:

[#]**Suspected Heat stroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature $\geq 40\text{ }^{\circ}\text{C}/\geq 104\text{ }^{\circ}\text{F}$** , 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 heat wave season i.e., March to July)*

^{##}**Suspected Heat Stroke Death:** Is a death on account of suspected heat stroke patient.

FORMAT 2: Health facility format for sending to DISTRICT

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

(Compilation of Format 1, A & B)
(To be sent to District Nodal Unit daily)

Name of health facility:				Date of reporting: ____/____/____			
Block:		District:					
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 Heat Stroke Cases (A)	Total Suspected Heat Strokecases since 1 st March ____ (B)	All cause deaths**			
				Suspected Heat stroke deaths ^{##} (a)	Confirmed CVD deaths (b)	Others including unknown (c)	Total deaths (a+b+c)

Form filled by (Name):

Name of Facility In-Charge:

Designation:

Signature of Facility In-Charge:

Signature:

Date:

FORMAT 3 (A): DISTRICT FORMAT FOR DAILY COMPILATION

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

[#]**Suspected Heat stroke:** 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 heat wave season i.e., March to July)*

Family numbers of Suspected Heat stroke CASES[#] and All cause DEATHS^{*}

(Compiled from Format 2)

(To be kept at District for record)

Cases and deaths due to heat related illness (HRI)- <i>District name</i>					Date of reporting: ___/___/___				
Sl. No.	Name & type of Health Facility	Total patients of the day (Emergency Medicine + Emergency Paediatrics + Casualty)	New Suspected Heat Stroke cases (A)	Total Suspected Heat Stroke cases since 1 st March, ___ (B)	All cause deaths ^{**}				Remarks
					Suspected Heat stroke deaths ^{##} (a)	Confirmed CVD deaths (b)	Others including unknown (c)	Total deaths (a+b+c)	
	PHC1								
	PHC2								
	CHC								
	CH/DH								
	PVT1								
	PVT2								
Total for District 1									

Total number of New Confirmed Heat Stroke Deaths^{*} in the District on ___/___/___: Total number of Confirmed Heat Stroke Deaths in the District since 1st March _____: [confirmed by 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 that occur in casualty/emergency of medicine plus paediatrics, regardless of cause.

[#]Suspected Heat stroke: 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 heat wave season i.e., March to July)

^{##}Suspected Heat Stroke Death: Is a death on account of suspected heat stroke patient.

FORMAT 3 (B): DISTRICT FORMAT FOR SENDING TO STATE
Daily numbers of Suspected Heat Stroke 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 heat stroke- <i>District Name</i> 20____				Date of reporting: ____ / ____ / ____					
Date	Total patients of the day (Emergency Medicine + Emergency Pediatrics + Casualty)	New Suspected Heat Stroke Cases (A)	Total Suspected HeatStroke cases since 1 st March, 20____ (B)	All cause deaths ^{**}				New Confirmed Heat Stroke Deaths ^{***}	Total Confirmed Heat Deaths since 1 st March 20__
				Suspected Heatstroke deaths ^{##} (a)	Confirmed CVDdeaths (b)	Others including unknown (c)	Total deaths (a+b+c)		

Name of person filling the form:

Name of nodal officer:

Designation:

Signature of nodal officer:

Signature:

Date:

^{**}All cause death: All of the deaths that occur in casualty/emergency of medicine plus paediatrics, regardless of cause.

[#]Suspected Heat stroke: Altered mental status (including disorientation, delirium, seizure, obtundation) with elevated core body temperature $\geq 40^{\circ}\text{C}/\geq 104^{\circ}\text{F}$, 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 heat wave season i.e., March to July)

^{##}Suspected Heat Stroke Death: Is a death on account of suspected heat stroke patient.

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 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 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 Don't Know... 3	B.3
B.2	Place where deceased was found unconscious or dead?	At home 1 At work place 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 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 Don't Know... 3
C.1.3. What was the core body temperature? (from medical record only):	

D.11	If yes to D.8, was the air-conditioner working?	Yes.....1 No2 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 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 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	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 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 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 Don't Know...3	
F.2	Was the deceased suffering from any acute medical conditions prior to onset of current illness?	Yes... .. 1 No 2 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 prior to onset of current illness?	Yes... .. 1 No 2 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 India Meteorological Department

No.	Questions and Filters	Coding categories/Response	If no, Skip to
G.1	What was the Maximum temperature (Tmax) of area at/around time of onset of illness (or at time of death if onset unknown)?:		

G.2	What was the Maximum temperature (Tmax) for each day of past 3 days from date of death of patient?:	a. One day back: b. Two days back: c. Three days back:	
G.3	Was there a heat wave affecting the area/region on date of onset of illness?	Yes..... 1 No 2 Don't Know...3	
G.4	Was there a heat wave in previous 3 days in the area where the onset of illness occurred?	Yes..... 1 No 2 Don't Know...3	
G.5	What was the relative humidity of area at/around time of onset of illness (or at time of death if onset unknown)?:		
G.6	What was the relative humidity for each day of past 3 days from date of death of patient?:	a. One day back: b. Two days back: c. Three days back:	

Form filled by:

Name:

Signature:

Designation:.....

Date

CHAPTER –VI

Important Contact Details				
SI No.	Name of the Officer	Designation	Office Details	Contact No. (If Land line please prefix 06815-)
1	Sj Lingraj Panda, IAS	Collector or District Magistrate	Collectorate, Gajapati	9437561919, 222397, 222396(R), 222464 (Fax)
2	Sri Gabara Tirupati Rao	ZP President, Gajapati,	Zila Parishad	7978935937
3	Sri Sangram Sekhar Panda	Additional District Magistrate, Gajapati	Collectorate Office	9437166214 223333, 222578
4	Ms. Swasti , IPS	Superintendent of Police	Superintendent of Police Office, Gajapati	222533, 2225666 (R) , 222565 (Fax)
5	S Ananda (IFS)	District Forest Officer	District Forest Office – Paralakhemundi	9437079579
6	Sj Romanchal Khamari	CDO-cum-EO, Zilla Parisad, Gajapati	Zila Parishad, Gajapati	9937274006
7	Sri Pradeep Kumar Patro	Chief District Medical Officer	DHH, Gajapati	9438297034 222205
8	Sj Prabhas kumar Behura	District Emergency Officer – Gajapati	DEOC , Gajapati	8328922640
9	Kailash Chandra Behera, M.Sc.(Ag.)	Deputy Director Agriculture, Gajapati	Agriculture Office	9437638935
10	Er. Nimal Kumar Das	Executive Engineer, Rural Development, Gajapati	RD- Gajapati	9437255318
11	S. Samapad Rao	SE, Irrigation (Embankment)	Irrigation office, Gajapati	9437235600
12	Ms. Tapaswini Hansada	BDO, Mohana	Block Office – Mohana	7008717774
13	Mr. Nilamadhb Majhi	BDO – Gosani	Block office – Gosani	7205046908
14	Mr. Lariman Kharsel	BDO – R.Udayagiri	Block office – R. Udaygiri	9777082993
15	Mr. Anup ku Behera	BDO – Gumma	Block Office, Gumma	8280128345
16	Mr. Madhusudan Tandi	BDO – Kashinanagr	Block Office- Kashinagar	9556130989
17	Lokanath Sabar	BDO – Nuagada	Block Office,	9777436607
18	Sj Sudhira kumar Singh	BDO Rayagada	Block Office, Rayagada	9439619246

19	Mr. A Mahapatra	Asst. Fire Officer Gajapati	Fire Station	9439973311
20	Anil Kumar Das	Nodal Officer – DM	Kashingar, NAC	9337051639
21	Sj Nakul Ch Bishoi	Nodal Officer –DM	Paralakhemundi – NAC	9437719620
22	Sj Subrat kumar Das	Nodal Officer –DM	Gosani block	9439525726
23	Sj Padmanava Behera	Nodal Officer –DM	Kashinagar block	8144607401
24	Sj Ananada Gointi	Nodal Officer –DM	Nuagada block	8480509635
25	Sj Arun kumar Udayabhanu	Nodal Officer –DM	R. Udayagiri Block	8375962636
26	Sj Khageswar Bhuyan	Nodal Officer –DM	Mohana Block	7894555004
27	Sj Bishnuprasad Sethi	Nodal Officer –DM	Rayagada block	6372503051
28	Sj Manoj Sahu	Nodal Officer –DM	Gumma block	8480176266
29	Mr. Jagannath Raju	Nodal NGO –CEO	SWWS - Gajapati	06815-222197/222471

Important Contact No. of Urban Local Bodies

Contact Details of Executive Officer & Councilors of Paralakhemundi Municipality					
Sl. No.	Name	Designation	Ward No.	Contact No	Whats App No.
1	Sri Natabar Garada, OAS (JB)	Executive Officer	PKD Municipality	9439875607	9439875607
2	P. Amaluamma	Councilor	1	8917353191	8917353191
3	K. Jhansi	Councilor	2	9861408677	9861408677
4	Bibhuti Bhusan Behera	Councilor	3	6371952115	6371952115
5	Balakrushna Patra	Councilor	4	8327712319	8327712319
6	Nagabansa Niladri	Councilor	5	9439708827	
7	Gaddi Venkata Ramana	Councilor	6	7381903333	7381903333
8	Dharitri Sabar	Councilor	7	9437139872	9078745234
9	K.Rohini	Councilor	8	7978351583	9861640065
10	E. Narayana Rao Behera	Councilor	9	8847866601	8847866601
11	Sakuntala Behera	Councilor	10	6370817277	6370817277
12	Prasanna Patro	Councilor	11	9777502298	9777502298
13	P. Umasankar	Councilor	12	9861711755	9861711755
14	Lenka Madhu	Councilor	13	9437619593	9437619593
15	Jyotirmayee Das	Councilor	14	8114947929	8114947929
16	Surajeet Tripathy	Councilor	15	9040192194	9040192194
17	V. Ramarao	Councilor	16	8328944483	8328944483

Contact Details of Executive Officer & Councilors of Kashinagar NAC					
Sl. No.	Name	Designation	Ward No.	Contact No	Whats App No.
1	Asish Pradhan, ORS	Executive Officer	Kashinagar NAC	9439490761	9439490761
2	Sirla Jhansi	Councilor	1	6372696649	
3	Sirla Urvasi	Councilor	2	8249406353	
4	Vadadi Chelapati Rao	Councilor	3	9348300836	
5	OmmiRajuamma	Councilor	4	9439646460	
6	Korikana Rajesh	Councilor	5	9583402502	
7	Jyosodha Nayak	Councilor	6	8328989827	
8	Lopinti Rajuma	Councilor	7	9668566201	
9	Kolingapatnam Jeevaratnam	Councilor	8	7032021100	
10	Katiki Rama Rao	Councilor	9	9437143836	
11	Bodala Vimalamma	Councilor	10	9348668283	
12	Raghuram Sahu	Councilor	11	8249689513	
13	Daruli Sabar	Councilor	12	9692836353	
14	Laxmi GANGA	Councilor	13	9937062100	

HEAT WAVE DO'S AND DON'TS

Do's

- Drink sufficient water as and when possible, even you are thirsty. Use Oral Rehydration Solution (ORS), and consume homemade drinks like lemon water, butter milk/lassi, fruit juices with some added salts.
- Carry water during travel
- Eat seasonal fruits and vegetables with high water content like water melon, musk melon, orange, grapes, pineapple, cucumber, lettuce or other locally available fruits and vegetables.
- **Stay covered:**
 - Wear thin loose cotton garments preferably light colored
 - Cover your head: use umbrella, hat, cap, towel and other traditional head gears during exposure to direct sunlight
 - Wear shoes or chappals while going out in sun.
- **Stay alert:**
 - Listen to Radio; watch TV; read Newspaper for local weather news. Get the latest update of weather on India Meteorological Department (IMD) website at <https://mausam.imd.gov.in/>
- **Stay indoors as much as possible:**
 - In well ventilated and cool places
 - Block direct sunlight and heat waves: Keep windows and curtains closed during the day, especially on the sunny side of your house. Open them up at night to let cooler air in.
 - If going outdoor, limit your outdoor activity to cooler times of the day i.e., morning and evening For vulnerable population
- **Although anyone at anytime can suffer from the heat-related illness, some people are at greater risk than others and should be given additional attention. These includes:**
 - Infants and young children
 - Pregnant women
 - People aged 65 years or older
 - People working outdoors
 - People who have mental illness
 - Those who are physically ill, especially with heart disease or high blood pressure

Other precautions:

- Elderly or sick people living alone should be supervised and their health monitored on a daily basis.
- Keep your home cool, use curtains, shutters or sunshade and open windows at night. Try to remain on lower floors
- Use damp cloths to cool down body
- Take bath in cold water frequently
- If you or other feel unwell
 - Try to get help/ and medical attention if you feel dizzy, weak, anxious or have intense thirst and headache; move to a cool place as soon as possible and measure your body temperature
 - Drink some water or fruit juice to rehydrate
 - Rest immediately in a cool place if you have painful muscular spasms (particularly in the legs, arms or abdomen, in many case after sustained exercise during very hot weather), and drink oral rehydration solutions containing electrolytes. Medical attention is needed if heatcramps last more than one hour

For Employers and workers

- Provide cool drinking water near work place and remind them to drink a cup of water every 20minutes or more frequently to stay hydrated
- Caution workers to avoid direct sunlight
- Provide shaded work area for workers. Temporary shelter can be created at work site.
- Schedule strenuous and outdoor jobs to cooler times of the day i.e., morning and evening hours
- Increase the frequency and length of rest breaks for outdoor activities- at least every 5 minutes after 1 hour of labour work.
- Listen to Radio; watch TV; read Newspaper for local weather news and act accordingly. Get the latest update of weather on India Meteorological Department (IMD) website at <https://mausam.imd.gov.in/>
- Assign additional worker or slow down the pace of work
- Make sure everyone is properly acclimatized: it takes weeks to acclimatize to a hotter climate. Do not work for more than three hours in one day for the first five days of work. Gradually increase the amount and time of works.
- Train workers to recognize factors which may increase the risk of developing a heat related illness and the signs and symptoms of heat stress and start a “buddy system” since people are not likely to notice their own symptoms
- Trained First Aid providers should be available and an emergency response plan should be in place in the event of a heat related illness.
- Pregnant workers and workers with a medical condition or those taking certain medications should discuss with their physicians about working in heat.
- If working outdoors wear light coloured clothing preferably long sleeve shirt and pants, and cover the head to prevent exposure to direct sunlight.
- Awareness campaigns should be organized for employees
- Install temperature and forecast display at the workplace.
- Distribute informational pamphlets and organize training for employers and workers regarding health impacts of extreme heat and recommendations to protect themselves during high temperature.

Don'ts

- Avoid getting out in the sun, especially between 12:00 noon and 03:00 pm
- Avoid strenuous activities when outside in the afternoon
- Do not go out barefoot
- Avoid cooking during peak summer hours. Open doors and windows to ventilate cooking area adequately
- Avoid alcohol, tea, coffee and carbonated soft drinks or drinks with large amount of sugar- as these actually lead to loss of more body-fluid or may cause stomach cramps
- Avoid high-protein food and do not eat stale food
- Do not leave children or pets in parked vehicle


Danger signs- Seek immediate medical attention if any of the following is observed:

- Altered mental sensorium with disorientation: confusion and agitation, irritability, ataxia, seizure and coma**
- Hot, red and dry skin**
- Body temperature ≥ 40 °C or 104 °F**
- Throbbing headache**
- Anxiety, Dizziness, fainting and light headedness**
- Muscle weakness or cramps**
- Nausea and vomiting**
- Rapid heart beat**
- Rapid, shallow breathing**


IEC Material on HAP

ଆବଧାନ ! ଆବଧାନ !

ଅଶୁଦ୍ଧତାକୁ ଆବଧାନ




ପାଖରେ ଥିବ ପାଣି ବୋତଲ
ହାତରେ ଥିବ ଛତା
ପାଦରେ ଥିବ ଚପଲ ଯଦି
ଖରାକୁ ନାହିଁ ଚିତ୍ତା




- ଦିନ ୧୧ ଟାରୁ ୩ଟା ଭିତରେ ଖରାବ ତାତି ସବୁଠାରୁ ଅଧିକ ଥାଏ । ଏଣୁ ଟାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ଅଧିକ ପାଣି, ଓ.ଆର.ଏସ୍., ପଣା, ଚୋରାଣି, ଘୋଳଦହି, ଆଖୁରସ ପିଅନ୍ତୁ ଓ କାକୁଡ଼ି, ତରଳୁକ ଆଦି ଖାଆନ୍ତୁ ।
- ଖରାରେ କଠିନ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ହାଲିଆ ଲାଗିଲେ ଛାଇ ଯାଗାରେ ବିଶ୍ରାମ କରନ୍ତୁ ।
- ମୁଣ୍ଡ ଓ ଦେହରେ ଓଦା ଗାମୁଛା ପକାନ୍ତୁ ।
- ନିଶାଖାଇ ଟାଣ ଖରାକୁ ବାହାରିଲେ ଜୀବନ ପ୍ରତି ବିପଦ ଥାଏ ।
- ଅଶୁଦ୍ଧତା ରୋଗୀ ଦେହରେ ବରଫ ଘଷନ୍ତୁ ନାହିଁ ।

ସରକାରୀ ହାତ୍ତରଖାନାରେ ଅଶୁଦ୍ଧତା ରୋଗୀଙ୍କ ଚିକିତ୍ସା ପାଇଁ ସୁବିଧା କରାଯାଇଛି ।



ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର
ପ୍ରସ୍ତୁତି : ରାଜ୍ୟ ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ପ୍ରତିଷ୍ଠାନ, ଓଡ଼ିଶା



ଅଶୁଦ୍ଧତା ପ୍ରତି ସତର୍କ ରୁହନ୍ତୁ

କ'ଣ କରିବା ଉଚିତ୍ !

- ☑ ଦିନ ୧୧ ଟାରୁ ୩ଟା ଭିତରେ ଖରାବ ତାତି ସବୁଠାରୁ ଅଧିକ ଥାଏ । ଏଣୁ ଟାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ☑ ଆବଶ୍ୟକ ସ୍ଥଳେ ବାହାରକୁ ଯିବାକୁ ହେଲେ ମୁଣ୍ଡକୁ ଓଦା ଗାମୁଛାରେ ଘୋଡ଼ାକୁ ଏବଂ ଛତା, ଯୋଡ଼ା ଓ କଳା ଚଷମା ବ୍ୟବହାର କରନ୍ତୁ ଓ ସାଥରେ ଅଣ୍ଟାପାଣି ନିଅନ୍ତୁ ।
- ☑ ବାହାରକୁ ଯିବା ଆଗରୁ ଓ ପହଞ୍ଚିବା ପରେ ସୁନ୍ଦର, ମାଠିଆ ଓ ଗୁମ ଆଦିରେ ଥିବା ପାଣି, ଲେମ୍ବୁ ସରବତ, ଘୋଳଦହି, ଲୁଣ ମିଶା ଚୋରାଣି ପିଅନ୍ତୁ ।
- ☑ ଖରାବରେ ବାୟୁ ଚଳାଚଳ ପାଇଁ ପୂଜା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।
- ☑ ହାଲିଆ ଲାଗିଲେ ଛାଇ ଯାଗା ଓ ପବନଚଳାଚଳ ସ୍ଥାନରେ ବିଶ୍ରାମ ନିଅନ୍ତୁ ।
- ☑ ଘରେ ଚିଣି ଓ ଆକବେଷ୍ଟସ ହାତ ଥିଲେ ତା' ଉପରେ ନଡ଼ା ବିଛାନ୍ତୁ ।
- ☑ ଦେହରୁ ଅଧିକ ଝାଳବୋହିଲେ, ପାଟି ଅଠା ଅଠା ଲାଗିଲେ - ପ୍ରତ୍ନ ପାଣି, ଓ.ଆର.ଏସ୍, ଓ ପଣା ପିଅନ୍ତୁ ।


କ'ଣ କରିବା ଅନୁଚିତ୍ ! !

- ✗ ଟାଣ ଖରାରେ ଶାରିରୀକ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ✗ ବୁଦ୍ଧ, ଅସୁସ୍ଥ ଲୋକ, ଶିଶୁ, ଗର୍ଭବତୀ ମହିଳା ଏବଂ ରକ୍ତଚାପ ଓ ମଧୁମେହରେ ପୀଡ଼ିତ ବ୍ୟକ୍ତି ଟାଣ ଖରାରେ ବାହାରକୁ ଯାଆନ୍ତୁ ନାହିଁ ।
- ✗ ଅଶୁଦ୍ଧତା ରୋଗୀ ଦେହରେ ବରଫ ଘଷନ୍ତୁ ନାହିଁ ।
- ✗ କେହି ଅସୁସ୍ଥ ଅନୁଭବ କଲେ ତାଙ୍କର ଚିକିତ୍ସା ପ୍ରତି ଅବହେଳା କରନ୍ତୁ ନାହିଁ ।
- ✗ ନିଶା ଦ୍ରବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଓ.ଆର.ଏସ୍ ପ୍ୟାବେଟ୍ ସମସ୍ତ "ଆଶା" ଅଙ୍ଗନବାସି ଚେନ୍ଦ୍ର, ସ୍ୱାସ୍ଥ୍ୟ ଉପକେନ୍ଦ୍ର, ସ୍ୱାସ୍ଥ୍ୟକେନ୍ଦ୍ର ଓ ସରକାରୀ ହାତ୍ତରଖାନା ସ୍ମୃତିକରେ ମାଗଣାରେ ମିଳେ । ସରକାରୀ ହାତ୍ତରଖାନା ମାନକରେ ଅଶୁଦ୍ଧତା ରୋଗୀଙ୍କ ପାଇଁ ଚିକିତ୍ସାର ସୁବିଧା କରାଯାଇଛି ।



ରାଜ୍ୟ ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ପ୍ରତିଷ୍ଠାନ, ଓଡ଼ିଶା



ଗ୍ରୀଷ୍ମ ପ୍ରବାହ (Heat Wave)

ଗ୍ରୀଷ୍ମ ପ୍ରବାହ କ'ଣ ?

ଯଦି କୌଣସି ସ୍ଥାନର ତାପମାତ୍ରା 40° ସେଲ୍‌ସିୟସ ପାଖାପାଖି ଥାଏ ଏବଂ ଏହା ସେହି ସ୍ଥାନର ସାଧାରଣ ତାପମାତ୍ରା ଠାରୁ 8° - 9° ସେଲ୍‌ସିୟସ ବୃଦ୍ଧି ହୋଇଥାଏ, ତାହାକୁ ଗ୍ରୀଷ୍ମ ପ୍ରବାହ ଓ 9° ସେଲ୍‌ସିୟସରୁ ଅଧିକ ବୃଦ୍ଧି ହୋଇଥିଲେ, ପ୍ରବଳ ଗ୍ରୀଷ୍ମପ୍ରବାହ କୁହାଯାଏ ।

ଯଦି କୌଣସି ସ୍ଥାନର ସର୍ବୋଚ୍ଚ ତାପମାତ୍ରା 40° ସେଲ୍‌ସିୟସରୁ ଉର୍ଦ୍ଧ୍ୱ ଥାଏ ଏବଂ ଏହା ସାଧାରଣ ତାପମାତ୍ରା ଠାରୁ $4-8^{\circ}$ ସେଲ୍‌ସିୟସ ବୃଦ୍ଧି ପାଇଥାଏ ତେବେ ତାହାକୁ ଗ୍ରୀଷ୍ମ ପ୍ରବାହ ଓ 9° ସେଲ୍‌ସିୟସରୁ ଉର୍ଦ୍ଧ୍ୱ ବୃଦ୍ଧିକୁ ପ୍ରବଳ ଗ୍ରୀଷ୍ମପ୍ରବାହ କୁହାଯାଏ ।

ଯଦି କୌଣସି ସ୍ଥାନର ତାପମାତ୍ରା 48° ସେଲ୍‌ସିୟସ ବା ତଦୁର୍ଦ୍ଧ୍ୱ ହୁଏ, ତେବେ ସେ ସ୍ଥାନରେ ସାଧାରଣ ତାପମାତ୍ରା ଯାହା ହେଲେବି ଏହାକୁ ଗ୍ରୀଷ୍ମପ୍ରବାହ କୁହାଯାଏ ।

ବେଳେବେଳେ ଅତ୍ୟଧିକ ଗ୍ରୀଷ୍ମପ୍ରବାହ ହେତୁ ମଣିଷ ମୃତ୍ୟୁମୁଖରେ ପଡ଼ିଥାଏ । ୧୯୯୮ ମସିହା ଏପ୍ରିଲରୁ ଜୁନ୍ ମାସ ମଧ୍ୟରେ ଗ୍ରୀଷ୍ମପ୍ରବାହ ହେତୁ ଓଡ଼ିଶାରେ ୨୦୪୨ ଜଣଙ୍କର ମୃତ୍ୟୁ ଘଟିଥିଲା । ଏହାକୁ ଅଂଶୁଘାତ ଜନିତ ମୃତ୍ୟୁ ବୋଲି କୁହାଯାଏ ।

ସୁରକ୍ଷା ଉପାୟ -

ଗ୍ରୀଷ୍ମ ପ୍ରବାହ ଓ ଅଂଶୁଘାତର ପ୍ରଭାବ କମ୍ କରିବା ପାଇଁ ନିମ୍ନଲିଖିତ ସୁରକ୍ଷା ବ୍ୟବସ୍ଥା ଗ୍ରହଣ କରିବା ଉଚିତ ।



୧. ଟାଣ ଖରାରେ ବାହାରକୁ ବାହାରକୁ ନାହିଁ । ହାଲୁକା, ପିକା, ଡିଲା ସୂତା ଭୂତା ବ୍ୟବହାର କରନ୍ତୁ । ଘରେ ପରବା ଟାଣନ୍ତୁ । ରାତିରେ ଝରକା ଖୋଲା ରଖନ୍ତୁ, ଫଳରେ ଘର ଥଣ୍ଡା ରହିବ । ଯେତେଥର ସମ୍ଭବ ଥଣ୍ଡା ପାଣିରେ ଗାଧାନ୍ତୁ ।
୨. ଶୋଷ ନଥିଲେ ମଧ୍ୟ ପ୍ରଚୁର ପାଣି ପିଅନ୍ତୁ । ଓ.ଆର୍.ଏସ୍. ପାଉଚର କିମ୍ବା ଘରେ ଉପଲବ୍ଧ ପାନୀୟ ଯଥା : ଲସି, ଘୋକ ଦହି, ଚୋରାଣି, ଲେନ୍ସୁ ପାଣି, ଦୁଧ ଇତ୍ୟାଦି ପ୍ରଚୁର ପରିମାଣରେ ପିଅନ୍ତୁ । ଗରିଷ୍ଠ ଖାଦ୍ୟ ଖାଆନ୍ତୁ ନାହିଁ ।
୩. ଗା, କପି, ମାତକତ୍ରବ୍ୟ ଓ କାର୍ବନଯୁକ୍ତ ଥଣ୍ଡା ପାନୀୟ ବ୍ୟବହାର କରନ୍ତୁ ନାହିଁ ।
୪. ଯଦି ବାହାରକୁ ଯିବାକୁ ପଡେ, ନିଜକୁ ରକ୍ଷା କରିବା ଭଳି ଉପକରଣ ଯଥା : କଳା ଚଖମା, ଜୋତା ବା ଚପଲ ଏବଂ ଧନାଢ଼ତା ବା ଟୋପି ବ୍ୟବହାର କରନ୍ତୁ । ସାଙ୍ଗରେ ପାଣି ନେବାକୁ ଭୁଲନ୍ତୁ ନାହିଁ ।
୫. ଭାଷଣ ଖରାରେ ବିଶେଷକରି ଦିନ ୧୨ଟା ଠାରୁ ୩ଟା ପର୍ଯ୍ୟନ୍ତ କଷ୍ଟକର ଶାରୀରିକ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।

୬. ବାହାରେ କାମ କରୁଥିଲେ, ଛଟା ବା ଟୋପି ବ୍ୟବହାର କରିବା ସହ ଓଦା ଗାମୁଛାରେ ମୁଣ୍ଡ, ବେକଆଦି ଶରୀରର ବିଭିନ୍ନ ଅଂଶକୁ ଘୋଡ଼ାଇ ରଖନ୍ତୁ ।
୭. ଅସୁସ୍ଥ ଅନୁଭବ କଲେ ତୁରନ୍ତ ଡାକ୍ତରଙ୍କ ପରାମର୍ଶ ନିଅନ୍ତୁ ।
୮. ବନ୍ଦ ରାତି ଭିତରେ ଛୋଟ ପିଲାଙ୍କୁ ଛାଡ଼ି ଆସନ୍ତୁ ନାହିଁ ।
୯. ଗୃହପାଲିତ ପଶୁମାନଙ୍କୁ ମଧ୍ୟ ଛାଇରେ ରଖି ପ୍ରଚୁର ପାଣି ପିଇବାକୁ ଦିଅନ୍ତୁ ।

ଅଂଶୁଘାତରେ ପାଡ଼ିତ ବ୍ୟକ୍ତିର ଚିକିତ୍ସା

୧. ପାଡ଼ିତ ବ୍ୟକ୍ତିର ଦେହ ଉତ୍ତାପକୁ କମାଇବା ପାଇଁ ଥଣ୍ଡା ଓ ଛାଇ ସ୍ଥାନରେ ଶୁଆଇ ରଖି ପ୍ରଥମେ ଓଦା କନା ବା ଗାମୁଛାରେ ତାଙ୍କୁ ପୋଛି ଦିଅନ୍ତୁ । ଆବଶ୍ୟକ ହେଲେ ମୁଣ୍ଡରେ ଥଣ୍ଡା ପାଣି ଢାକନ୍ତୁ ।
୨. ଓ.ଆର୍.ଏସ୍. ପାଉଚର ପାଣି, ଚୋରାଣି କିମ୍ବା ଲେନ୍ସୁ, ଦହି ସର୍ବତ୍ର ଇତ୍ୟାଦି ପିଆଇ ଦେହର କକାୟଅଂଶ ପରିମାଣକୁ ଠିକ୍ ରଖିବାକୁ ଚେଷ୍ଟା କରନ୍ତୁ ।
୩. ଅଂଶୁଘାତ ବେଳେବେଳେ ମୃତ୍ୟୁର କାରଣ ହୋଇଥାଏ । ଆଘାତପ୍ରାପ୍ତ ବ୍ୟକ୍ତିକୁ ତୁରନ୍ତ ନିକଟସ୍ଥ ସ୍ୱାସ୍ଥ୍ୟକେନ୍ଦ୍ରକୁ ପଠାଇବାର ବ୍ୟବସ୍ଥା କରନ୍ତୁ ।

ମନେରଖନ୍ତୁ :

ଅଂଶୁଘାତରେ ପାଡ଼ିତ ବ୍ୟକ୍ତିଙ୍କୁ ଏକାବେଳେକେ ଅତ୍ୟଧିକ ପାନୀୟ ପିଇବାକୁ ଦିଅନ୍ତୁ ନାହିଁ । ସୁସ୍ଥ ହେବା ପର୍ଯ୍ୟନ୍ତ ପ୍ରତି ଅଧ ଘଣ୍ଟାରେ ଅଧା ଗ୍ଲାସ ପାନୀୟ ଦେବା ଉଚିତ ।

Beat the Heat

Do's

- Stay hydrated
- Stay covered
- Block direct sunlight
- Remain indoor during 12:00 PM – 04:00 PM

Don'ts

- Avoid going out 12:00 PM – 4:00 PM
- Avoid strenuous activity in Sun
- Don't leave kids and pet unattended in vehicle
- Avoid alcohol, tea, coffee, high sugary drinks and fizzy drinks
- Avoid cooking 2:30 PM – 4:00 PM
- Don't walk barefoot

People at risk

Safeguard Workers from Heat

Provide safe working environment

- Cool drinking water facility
- Timely medical care
- Frequent breaks in comfortable rest area
- Cool and comfortable area for child care
- Insulate and shield hot equipment
- Assign additional workers or slow down work pace

Administrative measures

- Schedule mandatory breaks for those working under direct sun
- Schedule strenuous and outdoor work for cooler time of the day i.e. morning or evening hours
- Ensure that baby care / crèche center has cool drinking water proper shade, cooling mechanism and ORS solution
- Start a buddy system to monitor health of workers

108 People at risk

PROTECT YOUR CHILDREN FROM THE HEATWAVE

PRECAUTIONS FOR CHILDREN

Children Should:

- Always carry a bottle of water. Drink lemon water/ buttermilk/ coconut water/ fresh fruit juice regularly.
- Wear light coloured, lightweight, loose cotton clothes.
- Cover their heads when out in the sun with a cap and an umbrella.
- Avoid junk food during summer, Go for fresh fruits, salads and home-cooked meals.
- Stay out of direct sunlight, especially during peak hours from 12 noon to 4 p.m. Play outdoor games in the evenings.
- Take the child to a doctor if he/she complains of dizziness, nausea, constant headache, chest pain and breathing problems.

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