



OSDMA

HEAT WAVE ACTION PLAN

YEAR - 2023



DISTRICT DISASTER MANAGEMENT

AUTHORITY

SUNDARGARH

DISTRICT

ABBREVIATION

Sl.No	Abbreviation	Definition
1	ANM	Auxiliary Nurse Midwife
2	AIR	All India Radio
3	ASHA	Accredited Social Health Activist
4	AWS	Automatic Weather Station
5	BCM	Behavioural Change Communication
6	RMC	Rourkela Municipal Corporation
7	CDMO	Chief District Medical Officer
8	CHC	Community Health Center
9	CMRF	Chief Minister Relief Fund
10	CPA	Critically Polluted Area
11	CPCB	Central Pollution Control Board
12	DHH	District Headquarters Hospital
13	DPH	Directorate of Public Health
14	ECBC	Energy Conservation Building Code
15	EOC	Emergency Operation Centre
16	ERP	Excess Risk Point
17	EWS	Early Warning System
18	HAP	Heat Action Plan
19	H&UD	Housing and Urban Development
20	HRI	Heat Related Illness
21	IHI	Industrial Heat Island
22	IMD	India Meteorological Department
23	IIPH	Indian Institute of Public Health
24	I&PR	Information & Public Relation Department
25	MHU	Mobile Health Unit
26	NDMA	National Disaster Management Authority
27	NDRF	National Disaster Response Force
28	NHM	National Health Mission
29	ORS	Oral Rehydration Solution
30	OSDMA	Odisha State Disaster Management Authority
31	PHC	Primary Health Center
32	PRI	Panchayat Raj Institution
33	RI	Routine Immunization
34	SDH	Sub Divisional Hospital

35	SDRF	State Disaster Response Fund
36	SPCB	State Pollution Control Board
37	SRC	Special Relief Commissioner
38	ULB	Urban Local Bodies

FOREWORD

Climate change is driving temperatures higher as well as increasing the frequency and severity of heat waves in India. In the past few years, India too is experiencing the impact of climate change in terms of increased instances of heat wave every year. Deforestation and rampage construction area are also adding to environmental instability and contributing to global warming and climate change.

People living in rural & urban areas are amongst the hard hit when a heat wave occurs because these are hotter than the surrounding countryside. Along with climate change, urbanization is one of the most transformative trends of this century. A compilation of many Heat Wave related research and findings of different departments has also been included for future response and mitigation planning. The plan also includes a chapter on the new innovative measures in early warning and dissemination. The Standard Operating Procedures (SOPs) of relevant departments and district administration have been added for a clear understanding of the actions to be taken in a coordinated response against the calamity.

This plan aims to facilitate the stakeholders by providing insight into various aspects related to heat risk reduction and mobilization of stakeholders and coordination among various departments, individuals and community based organization for mitigating the impacts of heat wave. The aim is to protect lives of citizens and take preventive measures so that impact of heat wave can be mitigated.

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Chapter -1

INTRODUCTION

Rationale for Preparation of Heat Action Plan (HAP)

Odisha has a history of Heat Waves with soaring temperatures being recorded in several parts of the state. About 2042 people died in the State in the year 1998 due to Heat Wave. Casualties related to Heat Wave were experienced by the state again in 2005 when 236 lives were lost. There could have been many possible reasons including growing urbanization, rising population and industrialization. The problem is further going to be magnified due to climate change. According to the estimates, the situation is likely to worsen in the coming years; the World Meteorological Organization (WMO) predicts heat related fatalities will double in less than 20 years. The situation demands that the policy makers and researchers revisit and strengthen the current HAP. Till date, the 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. Under these circumstances, adaptation is a key response strategy to minimize potential deaths and other adverse effects on health due to Heat Waves (NDMA Guideline 2019).

Heat wave Definition

Heat wave is defined based on the temperature thresholds over a region in terms of Heat Wave are defined based on the temperature thresholds over a region in terms of actual temperature or its departure from normal. It is a condition where air temperature becomes fatal to human body when exposed. The World Meteorological Organization (WMO) defines a Heat Wave as ‘five or more consecutive days during which the daily maximum temperature exceeds the average maximum temperature by five degrees Celsius’. Again, depending on the upper deviation from the normal temperature it can be moderate Heat Wave or Severe Heat Wave (www.imd.gov.in)

As per India Meteorological Department (IMD) classification, Heat Wave is considered if maximum temperature of a station reaches atleast 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:

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 $>6.4^{\circ}\text{C}$

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 sub-division for at least two consecutive days. A Heat Wave will be declared on the second day. Higher peak temperatures daily and longer and acute Heat Waves are becoming increasingly frequent globally due to climate change

Chapter -2

DISTRICT PROFILE

A. Climate and Location

The Sundargarh town is the district headquarters. Geographically, the district is not a compact unit and consists of widely dissimilar tracts of expansive and fairly open, dotted with tree, clad isolated peaks, vast inaccessible forests, extensive river valleys and mountainous terrain. Broadly speaking, it is an undulating tableland of different elevations broken up by rugged hill ranges and cut up by torrential hill streams and the rivers IB and Brahmani. The general slope of the District is from north to south. Because of this undulating, hilly and sloping nature of landscape, the area is subjected to rapid runoff leading not only to soil erosion but also to scarcity of water for both agriculture and drinking purposes. Brahmani, Sankh, Koel and IB are the major rivers flowing through this District. Covering a geographical area of 9712 sq.kms, Sundargarh District is the second largest District of the state, accounting for 6.23 percent of its total area. Out of this total area, forests cover 4232.57 sq km, this being the second largest in the state, accounting for 8.53 percent of the state total.

The climate of the District remains extremely hot in the summer and fairly cold in the winter season. Most of its rainfall occurs in the monsoon season. The actual rainfall in the District was 1543.2 mm in the year 2021-22. The climate of the District is characterized by a hot dry summer and well disturbed rainfall in south-west monsoon season. The cold season commences in November and lasts till the end of February. The hot season follows thereafter and continues till about the end of June. The south-west monsoon season starts from mid-June and continues to the end of September, October and November constitute the post-monsoon season.

The relative humidity is high in the south-west monsoon season. Later the humidity decreases and during the winter season the air is fairly drier. The driest part of the year is the summer season when the relative humidity is low especially in the afternoons when they are about 20 to 30 per cent.

B. District at a Glance

Sl. No	Particulars	No.	Remarks
1	No. of villages	3623	

2	Total Population	20,93,437	
	a. Male	1061147	
	b. Female	1032290	
	c. Children		
3	No. of Blocks	17	
4	No. of Gram Panchayat	279	
5	No. of Tehsil	18	
6	No. of RI circle	126	
7	No. of Police Stations	14	
8	No. of Fire Stations	17	
9	No. of Urban Local Bodies	4	
10	No. of Sub-centres	390	
11	No. of PHC	23	
12	No. of CHC	10	
13	No. of Sub-Divisional Hospital	04	
14	No. of Veterinary hospitals	30	
15	No. of Anganwadi Centres	2922	
16	No. of ASHA	2429	
17	No. of Colleges	91	
18	No. of Schools	3156	
19	No. of Odisha Adarsh Vidyalaya	17	
20	No. of Rural Water Supply system	468	
21	a) No. of Tube Wells	28654	
22	b) No. of tube well Functional/running	28654	
22	c) No. of tube well dysfunctional	NA	
23	d) No. of tube well dysfunctional but repairable	NA	
24	e) No. of tube well having solar power	2597	
25	f) No. of Mega Water Supply	7	
26	No. of Temporary Shelters	Nil	
27	No. of Night Shelters	07	

Occurrence of Heat Wave

The climate of the District remains extremely hot in the summer and fairly cold in the winter season. Most of its rainfall occurs in the monsoon season. The actual rainfall in the District was 1543.2 mm in the year 2021-22. The climate of the District is characterized by a hot dry summer and well disturbed rainfall in south-west monsoon season. The cold season commences in November and lasts till the end of February. The hot season follows thereafter and continues till about the end of June. The south-west monsoon season starts from mid-June and continues to the end of September, October and November constitute the post-monsoon season.

Chapter – 3

EARLY WARNING DISSEMINATION

1. **Forecast and Issuance of Heat Wave Alert by 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 meteorological 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. EARLY WARNING AND COMMUNICATIONS 23 Heat Action Plan for Odisha 2022 prediction models like, WRF, GFS, GEFS, NCUM, UMEPS, UM Regional etc. available at Ministry of Earth Sciences (MoES) and other international models accessible under bilateral multi-institutional arrangement 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-

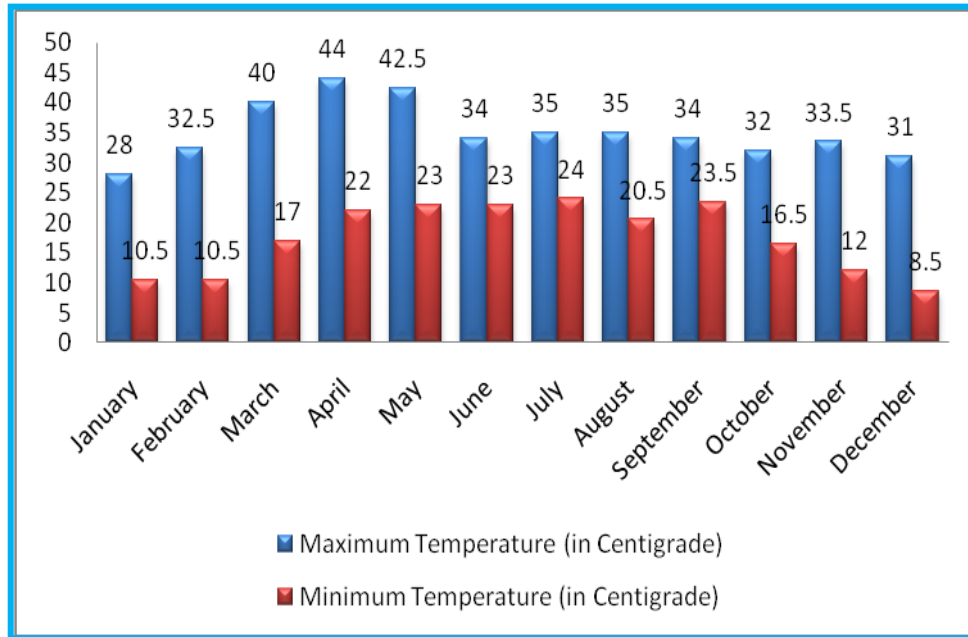
related hazards in short to medium range (valid for the next five days) every day as a part of its multi-hazard early warning system. These warnings, updated four times a day, are available at <http://www.imd.gov.in/pages/allindiawxbulletin.php>. A new system of exclusively heat-related warnings has 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>).

2. **Monitoring Heat wave by DDMA**

Based on IMD observations, heat conditions of Odisha are analyzed on a daily basis by OSDMA from March-June every year. Maximum temperature map of the state is prepared on GIS platform. The information is disseminated to the different stakeholders through social media.

Heat Wave condition of Sundargarh District

Sl. No	Month	Maximum Temperature (in Centigrade)	Minimum Temperature (in Centigrade)
1	January	28	10.5
2	February	32.5	10.5
3	March	40	17
4	April	44	22
5	May	42.5	23
6	June	34	23
7	July	35	24
8	August	35	20.5
9	September	34	23.5
10	October	32	16.5
11	November	33.5	12
12	December	31	8.5



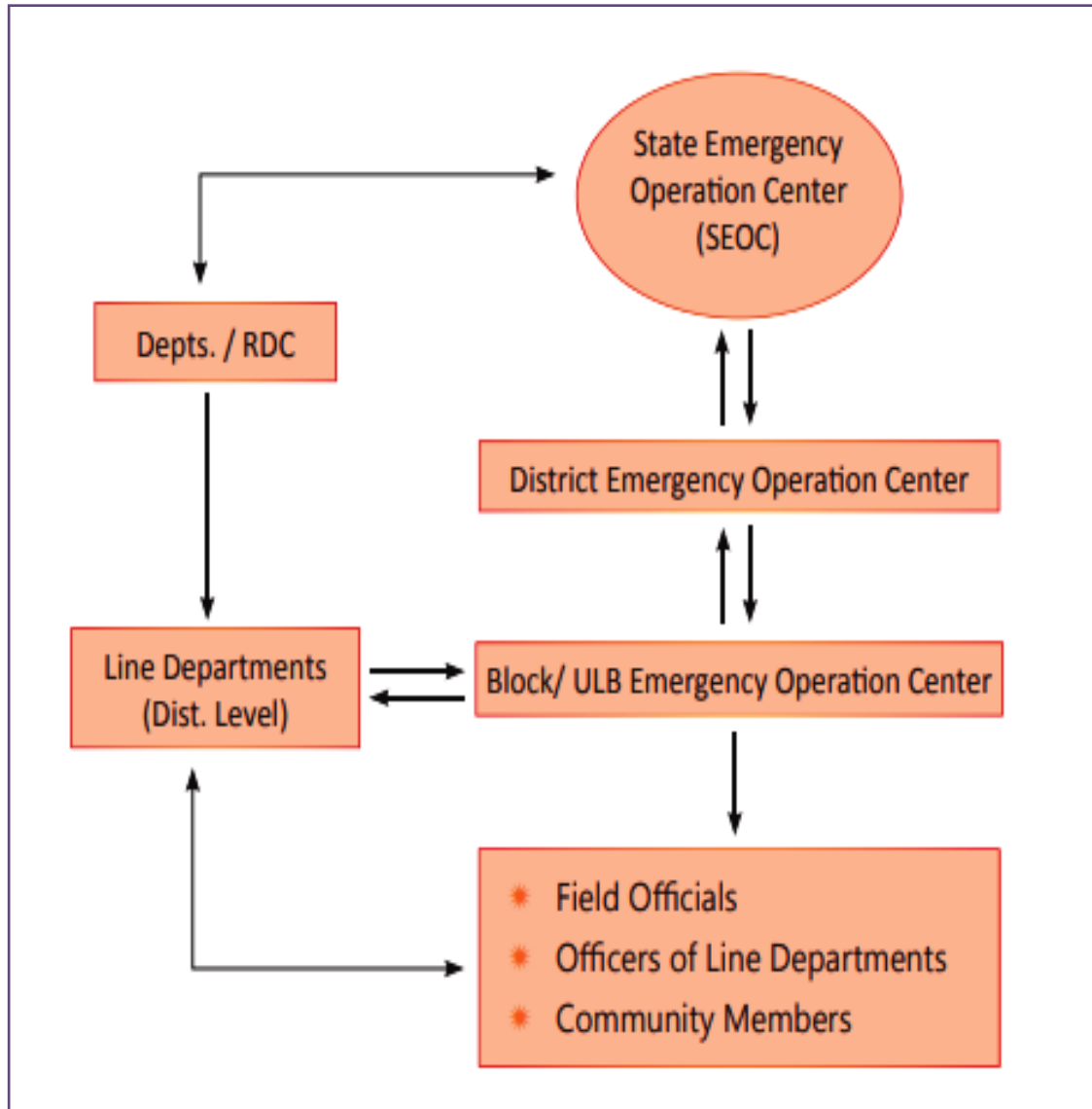
3. **Information Dissemination on Heat Wave**

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.

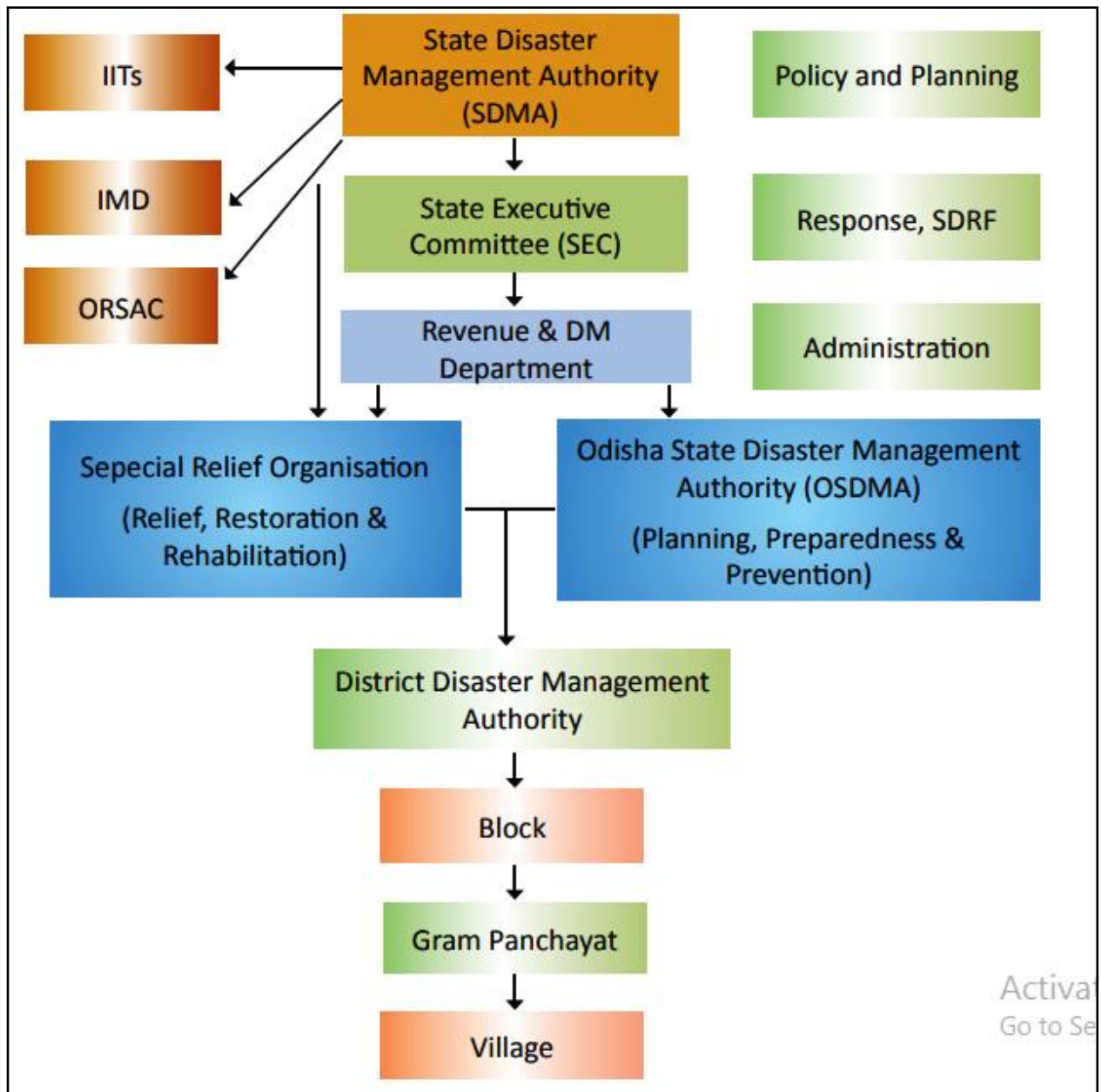
Existing Institutional Mechanism to Address Heat Wave in Sundargarh District

Every year all the District Collectors are instructed to take required precautionary measures for mitigating the heat-wave situation and the Chief Minister reviews the preparedness activities of the related departments. The chain of command that is followed after the issuance of a heat alert is depicted below.

Flow of information followed in Odisha Government of Odisha during Heat Wave alert



Institutional Mechanism for Heat Wave Management



During the summer months (March to June), the role Indian Meteorological Department (IMD), the Emergency Operations Centre (EOC) (Control Room) at the state and also at the district levels become alert about Heat Wave warning by analyzing the daily reports of India Meteorological Department (IMD). Immediately upon receipt of such a warning, the state and district Emergency Operation Centers make the necessary arrangements for flashing warnings through all forms of media. Simultaneously, departments of Health and Family Welfare, School and Mass Education, Labour & Employees' State Insurance, Transport and Commerce, Public Health Engineering & other related departments remain alert and put necessary emergency measures in place.

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. Target Group and location along with Communication Protocol Target group and geographical hotspots need to be identified for dissemination of early warning.

A. District Level- DDMA & DEOC, Sundargarh

- 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
- 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

- 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 language and action oriented.
- Messages to be disseminated 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.

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 - 4

Preparedness Measures

1. Department wise specific preparedness measures

A. Agriculture & Farmers' Empowerment Department (Circular No.3873, date02.03.2022)

- Popularizing crops needing less water like Maize, Ragi, Pulses etc and short duration varieties of crops.
- Improving Water Use Efficiency by advocating use of Micro Irrigation(Drip, Sprinkler irrigation)
- Popularizing PUSA Hydrogel especially in crops like Mung, Biri to retain the soil moisture by preventing evaporation from soil and releasing water in slow phases based on the need of the crop.
- Promoting adoption of Mulching technique for soil moisture conservation.
- The water holding capacity would be improved by applying coir pith before sowing.
- Irrigate the crops in critical stages of crop growth period.
- Repairing of bunds and closing of holes to stop water loss.
- Timely weeding, inter-cultural operation and application of herbicides.
- Spraying of need based pesticides during morning or afternoon hours.
- Taking appropriate control measures for incidence of Stem borer in Paddy, Thrips infestation in Pulses, Groundnut and Sunflower.
- Risk Coverage under crop insurance scheme for mid-season adversity, localized calamity & post-harvest loss.
- Creation of awareness to farming community on effects of Heat Waves.
- Provision of Drinking water supply, first-aid facility and temporary shed in the work site would be ensured.
- The labourers would be engaged up to 11 PM and there will be interval from 11AM to 3 PM Morning office for the districts officials would be held from April, as per the decision of Govt.

B. Fisheries & ARD Department(Circular No.1901, dt,19.02.2022)

ARD Sector

- In each district as well as Sub-division level, a Control Room for Heat Wave should be opened with adequate staff to attend any eventualities arising due to Heat Wave.
- The livestock holders need to be educated regarding the management practices to be

followed while rearing of animals and birds during scorching heat of summer.

- The scrolling news on Heat Wave needs to be telecast in different TV channels. The publications of advertisements on Heat Wave in different Odia newspapers need to be made for the awareness of public.
- Leaflets, Pamphlets and hand-outs will be circulated for wide publicity among the farmers and field functionaries.
- Livestock and poultry are prone to heat stress due to herd system of management resulting in Summer diarrhea, dehydration and subsequent shock. Hence, they are to be treated immediately with fluid therapy and essential life-saving drugs.
- There is also a need for supplementary post Heat Wave treatment to the affected animals and birds for which the veterinary Institutions (VDs & LACs) are to be equipped with sufficient stock of medicines.
- General Public would be advised to keep wide-mouthed water pots outside their houses for animals and birds.
- Temporary shallow water vats will be constructed for stray animals in strategic locations and in cattle markets through PR&DW Department. Accordingly, the detailed list with locations will be given to the respective DRDAS.
- The tube wells and animal vats should be constructed/ repaired in Veterinary Hospitals, Dispensaries and Livestock Aid Centers through PR&DW Department.
- The Mobile Veterinary Units in each block shall be utilized for monitoring the Heat Wave situation and for providing emergency veterinary service care.
- The farmers would be educated regarding the management of heat stress in animals and birds either during village meetings / trainings on Animal Husbandry activities or through different media.
- The successful management of heat stress includes the following:
 - In order to treat or provide necessary first-aids to heat affected animals, all the Veterinary Dispensaries/ Livestock Aid Centers need to be properly assessed with regard to availability of cold drinking water, stock of essential medicines and technical personnel.
 - All subordinate Staff / Officers are to be instructed to render selfless services 38 Odisha State Disaster Management Authority (OSDMA) to the affected livestock and poultry population in face of possible Heat Wave situations. Steps may be taken to open the field institutions beyond the prefixed schedule in case of necessity to cater

the need of farmers.

- The NGO/ CBOs of the district may be requested to extend hands of co-operation to mitigate the sufferings of animals due to heat. Temporary arrangements for drinking water may be made with the help of District Administration, line Departments and voluntary organizations to overcome heat stress of susceptible animals.
- Care of affected animals should be taken immediately.

C. Fisheries Sector

- During the excavation/ renovation of MPY, PMMSY or Departmental farms, labourers should not be engaged from 11 am to 3 pm. The Fishers must not go out during noon other than for exigency works.
- On the work site, temporary shed and drinking water facilities should be ensured by the beneficiaries.
- All field level officers AFO/SFTA/JFTAs should sensitize the Fishers about it.
- When temperature rises, dissolve oxygen decreases in the pond, pH level also decrease and fish start to get sluggish. Water tank level should be to minimum 1.0-1.5 mt. depth. The dissolved oxygen levels can be maintained by using aerators.
- Farmers must be sensitized on extreme heat in aquaculture practices through adequate awareness programs.

D. Housing and Urban Development Department(Circular No. 2601, 16.02.2022)

- Regular and adequate drinking water supply should be ensured by the PHEOULB to all the urban areas. For this, water supply pipe lines should be kept in good condition and any leakage or break down should be repaired within 24 hours on war footing.
- For emergency measures to ensure drinking water supply, water tankers should be deployed in different scarcity pockets to provide drinking water. Additional number of tankers, if required, may be arranged on hiring basis.
- Control Rooms are to be opened as usual and responsible officials should manage and attend to the complaints received on water scarcity.
- The ULBs should start opening more no. of water kiosks- PANIYA JAL BITARAN KENDRA i.e. drinking water distribution centers at strategic places i.e. on road sides, cross roads, public offices, bus stand, railway station, market places etc. keeping in view the sanitation and hygiene of water distribution points. Support of NGOs may be taken for this purpose, if necessary.

- All the Tube Wells/ Hand Pumps must be kept in running condition and spare parts should be kept ready for repairing of Hand Pumps/Tube Wells immediately in case of any complaint.
- Banning of burning of municipal solid waste, garden/tree residual should be ensured.
- To handle the emergency situation arising out of excessive Heat Wave, Health Care centers and hospitals under ULBs should be kept ready.
- Adequate awareness may be created among the urban inhabitants to keep one pot of water in front of households for stray birds and animals.
- The water must be changed on alternate days for better hygienic purposes.
- City-Afforestation/ Adequate sustainable avenue plantations /plantations on vacant places like educational institutions, parks, official complexes need to be taken up by the Development Authorities/ Regional Improvement Trusts/ Urban Local Bodies.
- Roadside dust of urban areas is a major cause for temperature rise and excessive heat and almost all the urban areas are now suffering from the hazards of dust particles. Necessary precautions must be taken to check and arrest the flying dust.
- All the Environmental Acts/Rules, NGT guidelines concerning improvement of urban area environment must be followed strictly and authorities concerned like Police, Forest, OPCB etc. handling their respective portion of jobs may be requested accordingly.
- All the water bodies in and around urban areas should be renovated, restored and repaired and these should be made free from pollution to make them usable and increase access to general public.
- Urban Local Bodies/Development Authorities/RITs are also required to
 - ✚ Display Heat Wave alerts and precautionary measures at strategic points.
 - ✚ Provide shelter and shades in open and high congregation places.
 - ✚ Open public parks during peak hours to provide cool resting spaces for the public.
 - ✚ Water supply to slums through tankers if required.
 - ✚ Public announcements through public address system as per requirement.
 - ✚ Make provisions for water sprinkling to settle down the suspended particles on roads.
 - ✚ Implement building code that entail passive cooling practices such as increased reflectivity of building roofs, Green roofs, increased natural ventilation and rain water harvesting. Incentive mechanism (e.g. reduced taxes) can be used to

accelerate green infrastructure development.

- ✚ Increase access to public parks, water bodies, public libraries for general public and create small, accessible green spaces by using vacant spaces such as side lots, parking medians, spaces between buildings and roads.
- ✚ Promote green energy technology, energy efficient building promotion, restricted use of heat producing equipments and increase use of renewable energy.
- ✚ Treated water coming out from the FSTPs and STPs may be reused for sprinkling of water on the road to keep the dust particles settled and the environment cool.

E. Information & Public Relations Department(Circular No.1492, dated 15.02.2022)

- All the DIPROS /SDIPROs would be instructed to be vigilant for prompt dissemination of any message alerts at the District /Sub-Division level relating to Heat Wave publicity campaigns etc. They must also be ready for release of any emergency messages and disseminate information through social media updates.
- Round the clock Control Room will be opened and will operate under the supervision of the concerned District Collector/Sub Collector.
- Publicity campaign and stepping up of IEC activities through public announcements, news releases, advertisements in print media, Leaflets and pamphlets, hoardings, radio jingles, TV slots, social media uploads i.e., facebook, twitter, You Tube etc. to sensitize public and create mass awareness in a mission mode is to be done under the direction of the District Administration.
- The Information Officers of Groups of Departments will be in constant touch with the respective departments for quick sharing of information regarding the decision taken at the higher level with the approval of the concerned department.
- Control room at the State level will also be opened and a designated team of officials and staff of I& PR Department function for the purpose and supervise the smooth functioning and dissemination of updated information relating to Heat Waves.
- Media brief Round the clock Control Room will be opened and will operate under the supervision of the concerned District Collector/Sub Collector Division/District &State level.

F. Industries Department (Circular No.2425, dated 16.03.2022

- Avoid work time between 11 AM to 3 PM for workers, particularly for outdoor activities.
- Special provisions for health facility for heat stroke patients in the hospitals of respective

industries

- Provision for safe drinking water, ice pack, ORS water facility to be ensured at the industry/mining site.
- Provisions for water sprinkling to be made to settle down the suspended dust particles.
- Spreading awareness among employees/workers regarding the Heat Wave.

G. Department of Health and Family Welfare (Circular No.5759, dated 17.03.2022)

- Capacity building of Health Care Service Providers (Doctor, Nurses, Pharmacist and health workers) on diagnosis and management of heat related illness.
- Maintaining data base and surveillance on heat related morbidity and mortality.
- Provision for Health facility readiness to manage heat affected patients (beds, staff, inventories, ambulance etc.).
- Special attention towards high risk patients like geriatric/pediatric /pregnant women etc.
- Training of 108 workers and Mobile Health Units (MHU)'for management of heat related cases
- Display do's and don'ts of Heat Waves on 'Swasthya Kantha'(village health wall),
- Sensitize community on Heat Wave related issues at Kishori Swasthya Mela (adolescent health meet), and Village Health Nutrition Day (VHND) and Routine Immunization (RI) sessions and distribution of IEC materials
- Strengthen the control rooms for providing heat related information
- Establishment of mobile base alert systems for ASHA/ ANM/ health workers for effective and immediate assessment of heat stroke cases.
- Development of a specific reporting form for heat related events including morbidity and mortality.
- Coordinate with private hospitals to collect heat related morbidity and mortality data.
- Provision for power back up during summer.
- Provision for funds for Heat Wave management.
- Provide annual mortality data from their vital statistics division to OSDMA
- For the year 2023, IEC material must be circulated in print and electronic media with effect tfrom 1st March for public awareness and precautionary measures
- These awareness activities should not be confined to the summer season only. They have to be done throughout the year for adoption of good practices and to change the general mindset of the people towards heat.
- Take necessary steps for albedo/white painting of roof tops of all hospitals, Community

Health Centers (CHCs), Public Health Centers (PHCs) and patient resting areas.

- Instructions to be issued from Health and Family Welfare Department to all health officials to share a copy of the post-mortem report of Heat Wave as well as other disaster related causalities with the Tehsildars to make the payment of ex-gratia smooth.
- Take necessary steps to prevent diarrhea and other health hazards during summer season
- Daily reporting of cases and deaths to be done through the prescribed format. A daily report should be collected from all health institutions by evening. It should be compiled and transmitted to the State health control room by Fax or E-mail by 12 noon of next day. This report must be transmitted by the State Control Room to the Revenue Control Room daily

H. Labour & E.S.I. Department (Circular No.2005, dated 11.03.2022)

- All the executive agencies of different Departments of the state Government. All the executive agencies of different Departments of the State Government as well as those of Government of India and private employers would be advised to reschedule working hours so that no work is executed during the peak heat hours from 11.00 AM to 3.30 PM from 1st April, 2023 to 15th June 2023.
- Rescheduling of work in progress would be made as far as is practical, so that the works are done during morning and late afternoon hours without hampering the quantum of production or work done and without reduction of wages. Such arrangements may be made keeping in view the local requirements and weather conditions.
- Where the nature of work is such that, the rescheduling of working hours is not possible or where the work is of emergent nature or connected with maintenance of essential services, the concerned employers, contractors and executants should be asked to ensure all appropriate precautionary measures such as provision of - O.R.S. packets and rest sheds for workers at worksite.
- The C.D.M.Os, S.D.M.Os, medical officers of the PHCS / CHCs and dispensaries should be sensitized and kept alert during the Heat Wave conditions. The ESI dispensaries, which are meant to cater to the health needs of workers/ labourers have a special role to play. They should remain alert and ready to treat the patients suffering from heatstroke and other similar problems.
- The Project Directors of all NCLPs should be instructed to reschedule the school| timing for all Special Schools run under NCLP in accordance with the timings prescribed by the Government in School & Mass Education Department.
- Awareness programmes will be conducted in all industrial units and construction projects

etc. to sensitize the labourers and workers on risks, signs and symptoms of heat stress.

I. Panchayati Raj & D.W. Department (Circular No.2898, dated 15.02.2022)

- All Gram Panchayats/Panchayat Samities/Zilla Parishads must be instructed to open Jala Chhatras/make arrangements for the supply of drinking water in earthen pots at weekly haats, Road crossings, Bus stops and other places of public gathering.
- Deployment of Additional Vehicle and manpower for repair/maintenance by Block Development Officers.
- Deployment of tanker for the supply of water in areas of water scarcity, and provisions of water kiosks, tube wells, tankers strategic locations by Block Development Officers in coordination with RWSS authorities.
- Restrict the working hours from 11 AM to 3 PM under MGNREGS.
- Supply of drinking water and shade nets at working sites and construction of ponds, artificial lakes for cooling the environment by evaporation
- 100% checks of tube wells and PWSSs shall be conducted on a priority basis as a part of preventive maintenance by the Nodal Officer of the concerned G.P. with the assistance of the Mobile Team followed by a 10% check by the BDO.
- The routine preventive maintenance shall be done in a mission mode and it should be ensured that the Blocks shall procure adequate spare parts, paints, riser pipes etc. by utilizing the Finance Commission Grants taking into consideration the indents of the Gram Panchayat on the recommendation of JE, RWSS-II.
- Nodal Officer (Extension Officer) of the concerned G.P. must review on the drinking water problem in the area on a daily basis and ensure that repair and maintenance of tube wells and PWSs are taken up on a priority basis. They are personally responsible for the availability of drinking water to people.
- Spare parts are to be procured at the Block level through the Purchase Committee inviting tenders as per norms of RWS&S/ OPWD/Odisha Panchayat Samiti Accounting Procedure Rules on the basis of the indent received from the G.Ps. The Purchase Committee will consist of BDO as Chairman, Assistant Executive Engineer/ Jr. Engineer, RWSS as a member and Accounts Officer as Member Convener. The spare parts so purchased shall be kept in the stock of the Block Register and issued to the sites as per requirement and certificate gave by Junior Engineer-II, RWSS
- A control room is to be made functional at each Block from 8 A.M. to 8 P.M. to register compliant on tube wells and PWSSs and the Complaint Register to be updated daily basis

with remarks.

- The water scarcity villages as per experience in the last summer shall be identified and preventive measures shall be taken at the time of necessity for the supply of drinking water through tankers/tractors loaded with water tanks etc.
- The water tanks purchased during the last summer by the Block or G.P. shall be numbered and utilized properly during the water scarcity period in such villages with branding “BASUDHA”.
- Any other critical issues regarding the supply of drinking water at the G.P. level shall be brought to the notice of the BDO and unresolved issues at the Block level shall be brought to the notice of the Project Director, DRDA during -summer.
- The GPs can take the assistance of Village Water and Sanitation Committee/ Women SHGs for ensuring proper drinking water supply to the habitations and also a collection of user fee from the household to whom the water connection is given.
- The Collector and PD, DRDA shall review weekly progress of preventive maintenance work of tube wells and PWS so that this can be completed in a mission mode.
- Nodal Officers of the PR & DW Department have been allotted to all 30 districts to supervise and monitor the supply of drinking water to the annual preparation of the State. All possible steps will be taken from villages to district level to meet the challenges of the Heat Wave conditions.
- All tube wells and PWC will be checked thoroughly and in case of water depletion | rising pipes will be provided and grievances from the call center will be attended to within 48 hrs.
- VAT will be constructed near the tube wells platform for the Drinking purpose of cows.
- Every household should have a water pot in front of their home for birds, dogs and cats and water should be filled in every two days.

J. Rural Works Department(Circular No.8105, Dated 15.03.2022)

- Departmental State & district level Nodal Officers would be identified for the Heat Wave management.
- Orientation programme for all the field staffs by the Nodal Officers would be conducted.
- Building public awareness and increasing community outreach to communicate the risks of Heat Waves and implement practices to prevent heat related death and illness must be done.
- Supply of Cold Water, ORS, emergency medicines & construction of cooling spaces like shades during extreme heat periods must be ensured at work sites by the agency.

- Outdoor work site from 11A.M to 3 P.M. would be restricted.
- Issue instruction for workers to keep their body covered with long sleeved shirts, caps & clothes for protection of ears and necks.
- Instruction management of the construction site (s) to provide transportation facility for shifting labours to health facility centre, in case of an emergency.
- Instruction management of the construction sites to display contact details of nearest health centre.
- Schedule strenuous jobs to cooler times of the day.
- Increase the frequency and length of rest breaks for outdoor activity.

K. School & Mass Education Department (Circular No.4042, dated 10.03.2022)

- Student should be advised to wear clean uniform and footwear.
- Schools with electricity shall be advised to ensure functional head fans and schools without electricity shall be advised to ensure availability of hand fans.
- Safe Drinking Water facilities shall be made available at school campuses.
- Adequate ventilation shall be ensured in classrooms.
- Physical Training/ exercise sessions as school periods may be restricted during summer season to avoid any inconvenience.
- Students shall be advised to come to school with umbrellas and water bottles.
- All teachers shall be instructed to sensitize children on Prevention measures in case of occurrence of Heat Wave.
- All schools shall be equipped with First Aid Boxes.
- All the transport services to schools should have cold water, ice box and First Aid box.
- Timing of all classes shall be re-fixed/ rescheduled as per the Heat Wave alert (preferably morning time 6.30 AM to 10.30 AM). This process shall be adopted for management of all schools.
- School Examination/ Assessment shall be scheduled in the morning hours.
- All school teachers, SMCs, students and parents should follow guidelines of govt. from time to time.
- Capacity building of teachers, Headmasters, education administration and SMC members should be made on the different precautionary measures
- Local Health Centers may be contacted immediately in case of any health hazard or health emergency

L. Steel & Mines Department (Circular No.2497, dated 17.03.2022)

- The working hours for workers engaged in outdoor activities for carrying out geological investigation have been rescheduled from 6.00 AM to 11.00 AM and from 3.00 PM to 6.00 PM.
- The exploration in-charge of every geological exploration unit has been advised to create temporary rest shades for their workers.
- Provision for sufficient cool drinking water, ORS, lemon water, butter milk will be made available in the exploration units.
- Awareness on Do's and Don'ts including their display will be made at different conspicuous places for workers and employees.
- Ambulances with AC facility have been made available for emergency services at working sites.
- Fire extinguishing equipment would be kept ready for emergency situations at different sites.
- First Aid Kits should be ensured in all working sites.

M. Commerce and Transport (Transport) Department(Circular No.2174, dated 16.03.2022)

- Timing of public transport services will be rescheduled so that plying of buses during peak Heat Wave hours i.e. between 11.00 AM to 3.00 PM is restricted.
- Provisions for safe drinking water ice pack, ORS in buses and provision of cool resting spaces at bus stops.
- Over-crowding of passengers in the public transport vehicles must be avoided.
- Jalachhatras to be opened at bus stands and bus stops for the passengers.
- Temporary Passenger sheds are to be erected near the bus stops with provisions of drinking water.
- Provision of water kiosk on highways.
- 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.
- Regular meetings must be held to sort out different issues

N. Energy Department (circular No. 1567, dated 24.02.2022)

TPSODL

- Supply will not be affected during Summer-2023 except in any emergency situation such as under frequency, tripping of power transformers, feeder faults, planned shutdown for execution of Govt. work with prior announcement etc.
- TPSODL will abide with the guidance issued to it by SLDC 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 Urja Mitra Scheme and also will be intimated via 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 taken steps for the operation of Control rooms at Division level, Circle level and corporate level through PSCC (Power System Control Centre).
- District Headquarter Hospitals are being provided with uninterrupted power supply through dedicated feeders.
- All PHD and RD water supply points will be ensured steady power supply.
- Early replacement of failed PTRs/DTRs will be taken up. Outage, if required for rectification of faults or any urgent reason, will be done for the minimum possible time.
- All the contractors/ agencies working under TPSODL 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, lowground sagging and tree branch cutting with respect to all 33KV and 11KV feeders.

TPWODL

- Survey and maintenance of feeders, Sub-stations, Distribution Sub-station will be completed by 31st March 2023.
- Adequate manpower and vehicles are available in TPWODL for preventive and breakdown maintenance of Sub-stations and feeders.
- Adequate consumables and petty materials have been procured and kept ready in central/divisional/sectional stores for preventive and breakdown maintenance.
- TPWODL has set up Power System Control Center (PSCC) for round the clock monitoring; PSCC Officials will co-ordinate with field officials for early identification and restoration of outages.

- All the 33/11 KV PSS within the jurisdiction of TPWODL has been supplied with android mobile phones and there are 9 Nos Satellites Phones for emergency contact during the exigency such as Kala Baisakhi and Cyclones.
- All the Circle Heads in-charge of Distribution Circles is empowered to release transformers in consultation with Chief Operation Services for early replacement of burnt transformers.
- All the TPWODL employees as well as BA employees with requisite maintenance gangs shall remain alert during the summer period.
- The Circle Heads/Divisional Managers will record/monitor the peak load of primary sub stations/feeders under their control daily so as to avoid breakdown due to failure of power transformers/overloading and consequent snapping of conductors in co-ordination with the Sub Transmission System.

TPWODL

- Sub-Transmission System Team shall monitor the load balancing of power Sub-Transmission System Team shall monitor the load balancing of power transformers and functioning of all the VCBs/ Relays to avoid any breakdowns.
- All the Divisional Managers have been directed to keep proper coordination with Grid Sub-stations under their control for proper load and outage management and the breakdown shall be attended at the quickest possible time for restoration of power supply and to minimize the duration of power interruption so as to avoid public confrontation.
- Prior information will be given to Customer Care Center (Ph: 18003456798) in case of shutdown and breakdown outages to keep consumers posted regarding ongoing outages.
- Preventive and breakdown outages information will be updated in Urja Mitra and TPWODL website for timely information to consumers.
- The Circle Heads of the Distribution Circle shall report to Chief Operation Services on power system status of their Circle.
- TPWODL will abide by the guidance issued to it by SLDC from time to time. In case of emergency maintenance work, the same will be done only during morning hour when the effect of the heat is less.
- TPWODL have taken steps for operation of Control rooms at Division level, Circle level and corporate level.
- District Head Quarter Hospitals are being provided with uninterrupted power supply through dedicated feeders. (N-1 Arrangements)
- All PHD and RD water supply points will be ensured steady power supply.

- Early replacement of failed PTRs/DTRs will be taken up

O. Forest, Environment & CC Department (Circular No. 6565, dated 04.04.2022)

- Ensure proper afforestation (greenery) under public place.
- Continuous watch in the forest area to avoid forest fires.
- Directive for making water available for animals in reserved/ protected forests and make necessary provisions, where necessary.
- Issue directives to the Zoo Authorities for special arrangements for the animals in zoo to protect them from the effect of Heat Wave.
- Directive for provision of water to human habitations facing water scarcity inside reserved forests
- Provision of funds for Heat Wave management.
- Prior to the hot weather season, village level meetings should be conducted through NGOs who can make them aware regarding extinguish or not setting forest fire.
- Monitoring, prevention and management of Forest Fire should be made during summer season.

P. Department of Tourism (Circular No.3024, dated 17.03.2022)

- Mapping of high-risk zones (e.g. Dhenkanal, Angul, Sundargarh, Cuttack, Khordha, and Ganjam) under the guidance of Indian Meteorological Dept. (IMD) conducting workshops for the District Tourist Office staff covering the high-risk zones, including the use of SATARK platform for enabling greater responsiveness.
- Advisories on Do's & Don'ts and special provisions will be compiled for and disseminated to: Tourists- Digitally on Website, Social Media and physically at all Tourist Centers, Hotels, other hospitality accommodations, eateries and their employees, etc.
- Dept of Tourism in coordination with Health Department and district administration will review the responsiveness of links between tourist centers and nearest clinical care establishments (hospitals, clinics,etc.)
- DeptofTourism&OTDCwillencourageemployeestoexerciseadequateprecautionandpositivehabitsbyprovisioningcapsandwaterbottles
- Dept. of Tourism will work with concerned authorities and departments to alter employee shift schedules to reduce heat exposure risks.
- Ensure proper registration of tourists who are visiting the State.
- Ensure availability of heat relief measures at tourist places
- Display of Heat Wave precautionary measures for tourists during summer at tourist points and related information in website of department of tourism.

- Ensure the availability of drinking water and cool resting sheds.
- Restrict the timing of the visit of tourist places during peak summer days.

Q. Water Resources (Circular No.3358, dated 11.02.2022)

Short Term Measures:

- Sufficient storage of water at reservoir to meet the Heat Wave.
- Release and storage of water in all the canals during summer.
- Release of canal water to the affected areas for public use, to increase the underground water level, reduce the atmospheric temperature and also improve the green areas.
- Canal water to be fed to nearby ponds, tanks, low lands for secondary storage of water during summer.
- The working hours for daily labourers to be re-scheduled i.e. from 6 a.m. to 11a.m. and 3.30 pm to 6 pm. Orders / instruction to be given to make provision of drinking water and rest shade at the work sites.
- Construction of small temporary earthen check dams at Rivers / streams to instantly store surface water for cooling the environment by evaporation.
- Regularly evaluate the availability of water in Reservoirs, rivers, ponds and lakes.
- Promote rotation of canal water supply.
- Create awareness among the community about Heat Wave through Water Users Associations (WUA)/ Pani Panchayat.

Long Term Measures:

- Construction of check dams at small streams for in-stream storage and greater recharge.
- Periodically evaluate the availability of water in Reservoirs, rivers, ponds and lakes.
- Conservation of rain& stream water.
- Create awareness among the people on Water conservation and effective use.
- Steps have been initiated for Plantation at road side, Dam site, Office & Colony Campus, Canal & Flood Embankment etc.from 2018.

Long Term Measures:

- Display of Heat Wave precautionary measures for tourists during summer at tourist points and related information in website of department of tourism.
- Ensure the availability of drinking water and cool resting sheds.
- Restrict the timing of the visit of tourist places during peak summer days.

R. SSEPD Department on Heat wave (Circular No.2466, dated 30.03.2022)

- Rescheduling the time of pension disbursement i.e. from morning 7.30A.M to 10.30 A.M.
- Ensure availability of drinking water, ORS packets etc. and shed at the site of pension

disbursement.

- Ensure precautionary measures for field staff of SSEPD Department i.e., carrying drinking water, ORS packets and umbrella or use capor while stepping outside on duty.
- Restrict visit of Senior Citizens and PwDs to outside during the peak hours especially from 11.00 A.M to 3.00 P.M during summers.
- Ensure availability of drinking water, ORS packets etc. in the Office of DSSO and other field Offices under SSEPD Department.
- Ensure availability of drinking water, ORS Packets and medicines of emergency nature in the Residential Schools and Old Age Homes under SSEPD Department.
- To keep the mobile number of BSSOs/SSSOs and emergency numbers in the Residential Schools, OAHs for immediate contact in case of any emergency.
- Weekly visit by Field Officers of SSEPD Department to OAHs and Residential Schools under SSEPD Department.

S. ST & SC Development Department(Circular No.2904, datd 21.02.2022)

- PA ITDAs and DWOs should ensure adequate and safe drinking water in all these residential schools and hostels.
- All toilets and bathrooms should have piped water supply provisions.
- Sufficient packs of ORS, ice packs and other first aid kits in schools/ hostels to manage Heat Wave related illness, should be stacked in the residential schools.
- All HMs, teachers, ANMs, Matrons, CCAs/LCCAs and Students should briefed and trained on Heat Wave Management. They shall ensure that all necessary precautions are taken up in these schools and hostels.
- Awareness generation among students should be conducted by teachers through IEC materials, displays and activities. DWOs to plan with prior consultation with CDMO and concerned Health Officers
- Awareness generation among students should be conducted by teachers through IEC materials, displays and activities. DWOs to plan with prior consultation with CDMO and concerned Health Officers.
- If any student boarder has any sign and symptoms of sunstroke, instant first aid shall be provided and he/she should be hospitalized immediately.
- Daily monitoring should be ensured and all DWOs should submit the daily Disease Surveillance Report to Department's Control Room. All PA ITDAs and DWOs shall review the school-wise Heat Wave preparedness with the respective HMs time to time and

inform the Department's Control Room in regular basis.

T. Women and Child Development & Mission Shakti Department (Circular No.4023, dated 04.03.2022)

- Non-functional tube wells, if any, at AWCs may immediately be repaired by coordinating with concerned BDOs.
- Provision for sufficient safe drinking water may be made in all AWCs and Mini- AWCs. Parents may be advised to ensure that children use umbrellas and carry water bottles on opening of the AWCs.
- Adequate public awareness may be created in the community with special focus on children and pregnant and nursing women to take measures for protection from dehydration.
- IEC materials may be displayed at Anganwadi Centres and ICDS functionaries sensitized to disseminate Heat Wave related information.
- Village Health Sanitation Nutrition Day (VHSND) and Routine immunization(RI) session platforms may be used to educate the children, adolescent girls, mothers and guardians on Heat Wave related hazards and precautionary measures to mitigate/prevent the same.
- ORS packets may be kept at all AWCs and AWWs sensitized to use the mass and when required. AWW/AWHs to also be suitably sensitized about Heat Wave related hazards & precautionary measures to mitigate/prevent the same.
- Ensure that all Swadha Homes/Ujjawala Homes and all CCl's have adequate safe drinking water which is suitable to meet the Heat Wave conditions.
- Further, on opening of AWCs throughout the State (likely to be opened shortly) ,the Pre-SchoolactivitiesinallAWCsandMini-AWCsmaybeconductedfrom7.30 A.M.to9.30A.M..HotcookedMealsunderSupplementaryNutritionProgramme (SNP) maybe served at9.00A.M.andHomevisitsmaybecompletedby10.00 A.M. This schedule may continue till end of the Heat Wave condition. However, these are subjected to specific instruction at the time of opening of AWCs

U. WORKS DEPARTMENT (Circular No.2327, date 02.03.2022)

- Adequate provision of rest shed at work site or near camp office site.
- Sufficient ventilation, windows and fans at rest shed.
- Provision of ORS and portable drinking water should be there at work sites and camp sites.
- Workers must wear proper summer clothing, protective hats, sun glasses etc.
- Maintaining of work break cycle and no work during prohibited hours.
- During working, the Agencies shall be instructed to ensure following at work sites for occupational health safety measures of construction workers:
- During periods of elevated temperature, employees should wear light-colored,

- Lightweight, loose-fitting cotton clothing that allows ventilation of air to the body.
- Protection from the sun by wearing a wide-brimmed hat/ cotton towels in lieu of hat and/ or sunglasses and sunscreen, if available, to prevent glaring heat and solar radiations.
- Provision of portable cool water, ORS and encourage employees to take breaks and hydrate any time they feel necessary.
- Pacing the job to allow more frequent breaks for fluid intake and sufficient recovery time.
- Work breaks must be taken in a shaded area which has sufficient windows and ventilation or an air-conditioned building.
- The contractors will be asked to remain alert to move the- Heat Wave affected persons having HRI symptoms working at site to the nearest PHC/ CHC or Hospital without delay.
- Opening of windows and adding fans to increase air movement in order to provide air cooling and ventilation of heat.
- Shielding radiant heat sources or exhaust at the point of heat generation.
- Providing shaded areas during remote outdoor work (e.g., constructing temporary shelters using tarps) tractors, lawnmowers and other outdoor equipment.

Dealing with Health related Illness

Prevention of Heat Related Illness

Heat Waves characterized by long duration and high intensity have the highest impact on morbidity and mortality. The impact of extreme summer heat on human health may be exacerbated by an increase in humidity. There is growing evidence that the effect of Heat Wave on mortality is greater on days with high levels of ozone and fine particulate matter. Global climate change is projected to further increase the frequency, intensity and duration of Heat Waves and attributable death (WHO).

Heat related illnesses can be best prevented if the vulnerable populations/ communities are made aware of prevention tips basic Do's and Don'ts through effective use of various media. Physicians and pharmacists must have knowledge of effective prevention and first -aid treatment of heat related illnesses. It is also crucial to have an awareness of potential side-effects of prescription drugs during hot weather, to ensure the mitigation of heat illnesses.

Clinical Manifestations of Heat-Related Illnesses

<u>Clinical Entity</u>	<u>Cardinal Symptoms</u>	<u>Cardinal/Important Signs</u>	<u>Pertinent Negative Findings</u>
Heat rash/ Prickly heat/ Miliaria	Itchy rash with small red bumps at pores in the skin. Seen in the setting of heat exposure; bumps can sometimes be filled with clear or white fluid	Diffused Red Colour Skin or vesicular rash, itching of the skin without visible eruption	Not Focally Distributed like a contact dermatitis
Heat Cramps	Painful spasms of large & frequently used muscle groups	Uncomfortable appearance, May have difficulty in fully extending affected limbs/joints	No contaminated wounds/tetanus exposure; no seizure activity
Heat Exhaustion	Feeling overheated, lightheadedness, Exhausted, weak, unsteady, Feeling of Vomiting, sweaty & Thirsty, Inability to continue activities	Sweaty/diaphoretic; flushed skin/ hot skin; Normal Core temperature; +/- dazed, +/- generalized weakness Slight disorientation	No coincidental signs & symptoms of infection; no focal weakness; no difficulty in swallowing food or speech; no drug/ overdose history
Heat Syncope	Feeling hot & weak; lightheadedness followed by a brief Loss Of Consciousness	Brief, generalised loss of consciousness in a hot setting Short period of	No Seizure Activity, no loss of bowel or bladder continence, no focal weakness, no

		disorientation, if any	difficulties in swallowing or speech
Heatstroke	Severe overheating; Profound weakness; Disorientation, Not Fully Alert, Convulsion, or Other Altered Mental Status	Flushed, Dry Skin (not always), Core Temp $\geq 40^{\circ}\text{C}$ OR $\geq 104^{\circ}\text{F}$ Altered mental status with disorientation, incoherent behaviour, Convulsion, Coma +/- tachycardia; hypotension	No coincidental signs & symptoms of infection no focal weakness; no difficulties in swallowing or speech, no drug/ overdose history

Spectrum of Heat Related Illness (HRI)

<u>HRI</u>	<u>Clinical Presentation</u>	<u>Treatment</u>
Heat oedema	<ul style="list-style-type: none"> Mild swelling of feet, ankle&h&s It appears in a few days of exposure to the hot environment Does not progress to pretibial region 	<ul style="list-style-type: none"> Usually resolves spontaneously within days to 6weeks Elevate leg Compressive stocking Diuretics are not effective
Prickly Heat	<ul style="list-style-type: none"> Pruritic, maculopapular, erythematous rash typically over covered areas of body Itchiness Prolonged or repeated heat exposure may lead to chronic dermatitis 	<ul style="list-style-type: none"> Antihistamine Wear clean, light, loose-fitting clothing Avoid sweat generating situations Chlorhexidine is a light cream or lotion base Calamine lotion
Heat Cramps	<ul style="list-style-type: none"> Painful, involuntary, spasmodic contractions of skeletal muscle (calves, thighs & shoulder) Occurs in individuals sweating profusely & only drinking water or hypotonic solutions Limited duration Limited to specific muscle group 	<ul style="list-style-type: none"> Fluid & salt replacement (IV or oral) Rest in a relaxed environment
Heat Tetany	<ul style="list-style-type: none"> Hyperventilation Extremity/s& circumoral paresthesia Carpopedal spasm 	<ul style="list-style-type: none"> Calm the patient to reduce respiratory rate Remove from hot environment
Heat Syncope	<ul style="list-style-type: none"> Postural hypotension 	<ul style="list-style-type: none"> Rule out other causes of

	<ul style="list-style-type: none"> Commonly in non-acclimatized elderly 	<ul style="list-style-type: none"> syncope Removal from the hot environment Rest & IV drip
Heat Exhaustion	<ul style="list-style-type: none"> Headache, nausea, vomiting Malaise, dizziness Muscle cramps Temperature less than 40°C or normal May progress to heat stroke if fails to improve with treatment No CNS involvement 	<ul style="list-style-type: none"> Remove the patient from the heat stress area Volume replacement If there is no response to treatment in 30 minutes, then aggressively cool the patient to a core temperature of 39°C
Heat Stroke	<ul style="list-style-type: none"> Core body temperature greater than 40°C Signs of CNS dysfunction: Confusion, delirium, ataxia, seizures, coma Other late findings: anhidrosis, coagulopathy, multiple organ failure 	<ul style="list-style-type: none"> Remove the patient from the heat stress area Volume replacement If there is no response to treatment in 30 minutes, then aggressively cool the patient to the core temperature of 39°C (further details later in document)

Source: National Action Plan on Heat Related Illnesses (NAPHRI), MoHFW

Preparedness and Precautionary Measures for Hospitals (A detailed Standard Operating Procedure (SoP) on Heat Related Illness- 2023)

- Opening of control room at District Surveillance Unit (DSU) which will function 24x7 with a dedicated phone number shared with all concern.
- Readiness of Rapid Response Team (RRT) at district and Block level to face challenges of heat related emergency
- Earmarked heat stroke room at District Head Quarter Hospitals (DHH) (6 Beds), SDH (4Beds), CHC (2 Beds), PHC (1 Bed) to be identified and keep in readiness with Ac & Coolers. Medical College to have earmarked beds as per anticipated case load.
- ORS corners to be opened in the strategic place like OPD, Pediatrics ward and infectious ward of the health institutions.
- Drug and logistics such as ORS, IV fluid, ICE pack and other consumable with emergency kits to be placed in the heat stroke room with regular replacement.
- 24x7 duty roaster of medical officers to be displayed in the causality
- Nodal Officers to be identified at district, SDH & CHC level for monitoring , supervision and report returning
- Prompt management of person with heat related illness to be undertaken by the healthcare facilities as per protocol and guideline of Government of India.

- Referral mechanism to be in place in case of referral of a person suffering from severe heat related illness to the higher center.
- Diagnosis of heat related illness to be done by medical officers based on the case definition as per the guideline of Government of India given in website (www.ncdc.gov.in)
- Awareness generation activities to be undertaken at district and sub- district level to upscale awareness on heat related illness and its prevention using local media, PRI & Other group.
- In case heat related illness death reported at health care facilities investigation should be done by medical officer and epidemiologist as per prescribed guideline and format of government of India.
- District Surveillance regarding forecast of heatwave from district emergency cell of Collectorate regarding forecast of heatwave for next few days based on which prompt action to be undertaken for prevention and management of heat related illness at district level.
- Capacity building of medical officer, CHOs, staff nurse, ANM, ASHAs and other paramedics on hybrid mode to upscale knowledge on heat related illness.
- Daily report to be communicated to state surveillance unit by 5:00pm positively for compilation and onwards transmission to different stakeholders.
- Daily surveillance on heat related illness under NPCCHH programme to be conducted on IHIP using existing P from level login information & continue line listing of cases and deaths for which the MPH W (M), MPH W (F), CHO, MPHS (M), MPHS (F) are to be sensitized for related data entry and Early Warning Systems.

Heat Wave DOs and DON'Ts

DOs

Heat Wave conditions can result in physiological strain, which could ever result in death.

- ◆ To minimize the impact during the Heat Wave and to prevent serious ailment or death because of heat stroke, you can take the following measures:
- ◆ Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- ◆ Drink sufficient water and as often as possible, even if not thirsty
- ◆ Wear lightweight, light-coloured, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- ◆ Avoid strenuous activities when the outside temperature is high. Avoid working outside between 12 noon and 3 p.m.
- ◆ While travelling, carry water with you.
- ◆ Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrate the body.
- ◆ Avoid high-protein food and do not eat stale food.
- ◆ If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs
- ◆ Do not leave children or pets in parked vehicles
- ◆ If you feel faint or ill, see a doctor immediately.
- ◆ Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. which helps to re-hydrate the body.
- ◆ Keep animals in shade and give them plenty of water to drink.
- ◆ Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- ◆ Use fans, damp clothing and take bath in cold water frequently.

Tips for Treatment of a Person Affected by Sunstroke:

- ◆ Lay the person in a cool place, under a shade. Wipe her/him with a wet cloth/wash the body frequently. Pour normal temperature water on the head. The main thing is to bring down the body temperature.
- ◆ Give the person ORS to drink or lemon sarbat/torani or whatever is useful to rehydrate the body.
- ◆ Take the person immediately to the nearest health center. The patient needs immediate hospitalization, as heat strokes could be fatal.

Acclimatization

People at risk are those who have come from a cooler climate to a hot climate. You may have such a person(s) visiting your family during the Heat Wave season. They should not move about in open field for a period of one week till the body is acclimatized to heat and should drink plenty of water. Acclimatization is achieved by gradual exposure to the hot environment during a Heat Wave.

Must for All

- ◆ Listen to Radio; watch TV; read Newspaper and other sources for local weather news/heat advisories.
- ◆ Drink sufficient water - even if not thirsty.
- ◆ Use ORS (Oral Rehydration Solution), homemade drinks like lassi, torani (rice water),

lemon water, buttermilk, etc. to keep yourself hydrated.

- ◆ Wear lightweight, light-coloured, loose, cotton clothes.
- ◆ Cover your head: Use a cloth, hat or umbrella and use protective goggles.
- ◆ Avoid caffeine, alcohol or sugared soda because they can dehydrate your

Employers and Workers

- ◆ Provide cool drinking water at the work place.
- ◆ Caution workers to avoid direct sunlight.
- ◆ Schedule strenuous jobs to cooler times of the day.
- ◆ Increasing the frequency and length of rest breaks for outdoor activities.
- ◆ Pregnant workers and workers with a medical condition should be given additional attention.

Other Precautions

- ◆ Stay indoors as much as possible.
- ◆ Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- ◆ Try to remain on lower floors.
- ◆ Use fans, damp clothing and take bath in cold water frequently.
- ◆ If you feel faint or ill, see a doctor immediately.
- ◆ Keep animals in shade and give them plenty of water to drink.
- ◆ Carry water with you.

DON'Ts

- ◆ Avoid going out in the sun, especially between 11.00 noon and 3.00 p.m.
- ◆ Avoid strenuous activities when outside in the afternoon.
- ◆ Do not go out barefoot.
- ◆ Avoid cooking during peak hours. Open doors and windows to ventilate cooking area adequately.
- ◆ Avoid alcohol, tea, coffee and carbonated soft drinks which dehydrate the body.
- ◆ Avoid high-protein food and do not eat stale food.
- ◆ Do not leave children, pets or anybody in parked vehicles - as they may get affected by heat.
- ◆ Don't drink cold drinks with ice as they can cause stomach cramping.

Sl. No.	Name of the Officers	Designation	Office No.	Mobile No	Email. Id
1	Dr.Gavali Parag Harshad, (IAS)	Collector & District Magistrate, Sundargarh	06622-272265	8280066880	dm-sundargarh@nic.in
2	Manoj Mahajan, IAS	PR - CDO-cum-EO, Z.P., PD, DRDA, Sundargarh	273873	9861079543	
3	Rabi Narayan Sahu OAS (S)	Additional District Magistrate, Sundargarh	06622-273889	9438257340	admsundargarh@gmail.com
4	Abhimanyu Behera OAS (S)	Additional District Magistrate, Sundargarh	06622-273889	9437490494	
5	Abhimanyu Majhi	Sub Collector, Panposh	0661-2500616	9437092240 9827616538	subcol.panp-od@nic.in
6	Dasarathi Saraboo, OAS (Gr.A) (SB)	Sub-Collector, Sadar, Sundargarh	06622-295016	9348856606	subcol.sund-od@nic.in
7	Suranjan Kumar Sahoo, OAS, (S)	Sub-Collector-cum-Sub-Divisional Magistrate, Bonai	06626-244433	8895587616	Subcol.bonai-od@nic.in
8	Shri Pratyush Diwaker, IPS	Superintendent of Police, Sundargarh	06622-273324	9438916650	spsng.orpol@nic.in
9	Mukesh Kumar Bhamboo, IPS	Superintendent of Police, Rourkela	0661-2500020	9438916630	Sprkl.orpol@nic.in
10	Smt. Kunti Rani Naik	District Emergency Officer	06622-272233	9437767587 8249409350	deoc.sundargarh@gmail.com
11	Mirase Pradeep Devidas, IFS	District Forest Officer, Sundargarh	06622-272243	9437045243	dfosundargarh@odisha.gov.in

12	Jasobanta Sethi, OFS	District Forest Officer, Rourkela	0661-2664637	9437046637	
13	Sanath Kumar N, IFS	District Forest Officer, Bonai	06626-244434	9437046436	dfo.bonai@odisha.gov.in
14	Shreebanta Jena	District Child Protection Officer	06622-273343	9938170450	dcpo.sundargarh.od@nic.in
15	Nandini Mundary	DI&PRO, Sundargarh	06622-272213	9776109772	diprosundargarh21@gmail.com
16	Saisaba Charan Behera	Deputy Director (P&S)	06622-273345	9937354202	dposundargarh@gmail.com
17	Ajaya Barada	Asst. Fire Officer, Sundargarh		6371326874	
18	Ramakrishna Gand	I/C PA/ITDA, Sundargarh		9437339719 9938545499	itdabni@nic.in
19	Amulya Kumar Padhan, OES(SB)	District Project Co-Ordinator, Samagra Sikshya, Sundargarh	06622-272203	9437151875	
20	Madhusmita Singh	Executive Officer	06622-272266	8249392528	sngmunicipality@gmail.com
21	Chandrakanta Mallick	Tahasildar, Rourkela	0661-2514024		tah.rourk-od@nic.in
22	Victoria Ekka	Tahasildar, Hemgir	06621-287124	9438226951	tah.hemgiri-od@nic.in
23	Sarikarani Dhamel	Tahasildar, Lephripara	06621-284529	9437220506 7008534516	tah.lephri-od@nic.in
24	Kulamani Ranbida, OAS-A (JB)	Tahasildar, Sadar, Sundargarh	06622-272267	8594955921	tah.sund-od@nic.in
25	Saudamini Nayak	Tahasildar, Lahunipara		8280011024	Tah.lahuni-od@nic.in
26	D.S. Subhadarshi Joshi	Tahasildar, Koida		7904008254	Tah.koida-od@nic.in
27	Sadhabi Dehuria	Tahasildar, Gurundia		9438226963	Tah.gurun-od@nic.in

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30	Jyotsna Rani Sahoo	Tahasildar, Bisra	0661-2612211	8458088360	Tah.bisra-od@nic.in
31	Saraj Kumar Pruseth	Tahasildar, Badgaon	06624-279833	9776410674	Tah.bada-od@nic.in
32	Reena Naik	Tahasildar, Balisankara	06622-236619	7978999705 9777172824	Tah.balisan-od@nic.in
33	Surmi Soren, O.A.S.-I (JB),	Tahasildar Tangarpali	06621-282244	8763262825	Tah.tangarap-od@nic.in
34	Sushanta Kumar Behera	Tahsildar Birmitrapur	0661-2610459	9437085877	tah.biramitra-od@nic.in,
35	Sadhabi Dehuria	Tahsildar Gurundia		9438226963	tah.gurun-od@nic.i
36	Manashi Naik	Tahsildar Kutra		9437836949 7978367728	tah.kutra-od@nic.in
37	Ejius Binay Kullu	Tahsildar Rajgangpur	06624-220461	8763572712	tah.rajgang-od@nic.in
38	Rajesh Ku Sahu	Tahsildar Kuarmunda		9777565028	Tah.panp-od@nic.in
39	Suman Minz	Tahsildar Subdega		9438339617	tah.subdega-od@nic.in
38	Jyotirmayee Pradhan	BDO, Balisankara	236524	9040830695	ori-balisankara@gramsat.nic.in
39	Kshamanidhi Bhoy	BDO, Bargaon	06624-246124	9438292933 8018849843 8280405345	ori-bargaon@gramsat.nic.in
36	Ansuman Dash	BDO, Bisra	0661-2612133	9439100056 7008524010	ori-bisra@gramsat.nic.in
37	Swadeep Kumar Toppo	BDO, Bonaigarh	06626-244918	9337742614 8280405347	ori-bonaigarh@gramsat.nic.in
38	Bernadeth Lakra	BDO, Gurundia	06626-242011	8280405348, 9437577367	ori-gurundia@gramsat.nic.in

39	Jagdish Ch. Mahanand, OAS-I (JB)	BDO, Hemgir	06621- 287123	8280405349, 6371272971 8480767929	ori-hemgiri@gramsat.nic.in
40	Pallabi Rani Raj, OAS-I (JB)	BDO, Koira	235026	9439372680 8328809530	ori-koira@gramsat.nic.in
41	Trupti Barai	BDO, Kuarmunda	0661-2618366	8895562172 8249183703 8280405351	ori-kuarmunda@gramsat.nic.in
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45	JanmajayBehera	BDO, Lephripada	06621- 284523	9438059828 7846829576 8280405355	ori-lefripada@gramsat.nic.in
46	Bikrani Kispatta	BDO, Nuagaon	0661-2113025	8280469044 9668492661 8280405356	ori-snuagaon@gramsat.nic.in
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48	Narayani Priyadarshini Panda	BDO, Subdega	278036	7750918777 8280405358	ori-subdega@gramsat.nic.in
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50	Aishwarya Bhuyan	BDO, Tangarpali	282336	8076041642 8280405360	ori-tangarpali@gramsat.nic.in
51	Hemanta Kumar Barik	SE, RWS&S,	272369	9437268450	

		Sundargarh			
52	Durga Charan Besra	CSO, Sundargarh	06622-272248	9438200060 9437127746	cso_sng@rediffmail.com
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54	Rabi Narayan Satpathy	DDA, Sundargarh	06622-272257	8249014010	ddasng.dag@nic.in
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59	Sushanta Kumar Panda	SE, TPWODL, Rourkela	2401598	9437058907	
60	Adil Mohammad	SE, PHED, Rourkela, WATCO	2664791	9437198677	
61	Subash Ch. Jena	CDVO, Sundargarh		6371212297	odisun-nadrs@nic.in
62	Dr. Giridhari Bhoi	ADVO, Sundargarh		7064719393	
63	Arun Kumar Sahoo	District Fisheries Officer	06622-272274	9437212376	dfosundargarh@gmail.com
64	Bibhabanjan Samantasinghray	RTO Rourkela	2500833	9437940011	rto_rourkella@yahoo.in,
65	SK Das	RTO Sundargarh		9437916679	rto_sundergarh@yahoo.co.in,
66	Prabhasini Ckakra	DSWO, Sundargarh		9438373201	dswosundargarh@nic.in

				7978909481	
67	Kamini Dwivedi	CDPO, Sadar		9437369479 8917586573	
68	Amulya Kumar Pradhan	Edn - Dist. Education Officer (DEO), Sng	272203	9437151875	
69	Amulya Kumar Pradhan	DPC, SSA, Sng	273718	9437151875	
70	Birendra Behera	CDAO, Sundargarh	273861	8637229268 9437087612	ddasng.dag@nic.in
71	Sambit Dash, ORS	Executive Officer, Birmitrapur	0661-2610228	8249674151	
72	Goutam Dansana	Executive Officer, Rajgangpur	220454	6372962515 9437110226	
73	Sitadevi Majhi	Dy. Commissioner, RMC	0661-2500388	7377564643	
74	Sudhansu Bhoi	Dy. Commissioner, RMC		9438067801	
75	Hitesh Agrawal, EE, Mega Lift, Jharsuguda (I/C)	EE, Megalift, Sundargarh	272332	8908951237	
76	Bibhuti Bhusan Dalbehera	EE, RWD, Sundargarh	06622-272280	9437255313	rw_sundargarh@yahoo.co.in
77	Kishor Chandra Khatua	EE, RWD, Rourkela	0661-2664691	9437255312	rw_rourkela@yahoo.co.in
78	Sri Hemanta Kumar Barik	EE, RWSS, Sundargarh	06622-272369	9437268450	eerwsng1@nic.in, rwss.sng@gmail.com
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80	Hemant Pandab	SE, Irrigation, Sundargarh	06622-272332	9937829320	irreesng@yahoo.in eerid_rkl@yahoo.com (Rourkela Division)
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83	Manoj Mahananda	EE, R&B, Rourkela	0661-2664291	9437638780 7008417619	eepwdrkl@gmail.com
84	Kunti Rani Naik	DC - Emergency / Red Cross / PG Cell	272233	9437767587 8249409350	
85	Girish Ch. Behera	EE, OLIC, Sundargarh		8917608881	eeolicsng@gmail.com
86	Pabitra Mohan Sahu	EE, OLIC, Rourkela		9437019552 6371475252	eeolicrourkela@gmail.com,
87	Sudhir Kindo	SDO, BSNL, Sundargarh		9437556600	
88	Rakesh K Chandrakar	GM, BSNL, Rourkela	0661-2600000	9425554600	

Awareness and IEC activities

ଅଂଶୁଘାତ ପ୍ରତି ସାବଧାନ !

- ☀️ ଟାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ☀️ ଖରାରେ କଠିନ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ☀️ ଜରୁରୀ କାମରେ ବାହାରକୁ ଯିବାକୁ ହେଲେ କଳା ଚଷମା, ଚପଲ, ମୁଣ୍ଡରେ ଓଦା ଗାମୁଛା ଏବଂ ଛତା ବ୍ୟବହାର କରନ୍ତୁ ।
- ☀️ ବାହାରକୁ ଯିବା ସମୟରେ ପାଣି ବୋତଲ ସାଙ୍ଗରେ ନିଅନ୍ତୁ ।
- ☀️ ହାଲୁକା ଏବଂ ଢିଲା ପୋଷାକ ପରିଧାନ କରନ୍ତୁ ।
- ☀️ ମାଦକ ଦ୍ରବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।
- ☀️ ଜନ ଶୁଷ୍କତାରୁ ରକ୍ଷା ପାଇବା ପାଇଁ ଅଧିକ ପାଣି, ଓ.ଆର୍.ଏସ୍ ଦ୍ରବଣ, ପଣା, ଚୋରାଣି, ଘୋଳଦହି ଓ ଆଖୁରସ ପିଅନ୍ତୁ । କାକୁଡ଼ି, ଚରଭୁଜ ଆଦି ଖାଆନ୍ତୁ ।
- ☀️ ଅଂଶୁଘାତରେ ଆକ୍ରାନ୍ତ ବ୍ୟକ୍ତିଙ୍କୁ ଯଥାଶୀଘ୍ର ଡାକ୍ତରଖାନା ନେଇ ଚିକିତ୍ସା କରନ୍ତୁ ।
- ☀️ ଗୃହପାଳିତ ପଶୁପକ୍ଷୀମାନଙ୍କୁ ଛାଇରେ ରଖନ୍ତୁ ଏବଂ ପ୍ରଚୁର ପରିମାଣରେ ପାଣି ପିଇବାକୁ ଦିଅନ୍ତୁ ।
- ☀️ ଭାରତୀୟ ପାଣିପାଗ ବିଭାଗ ଦ୍ୱାରା ଗ୍ରୀଷ୍ମ ପ୍ରବାହ ସମ୍ପର୍କୀୟ ଦିଆଯାଉଥିବା ସତର୍କ ସୂଚନା ପ୍ରତି ସର୍ବଦା ଧ୍ୟାନ ଦିଅନ୍ତୁ ।

ଓଡ଼ିଶା ରାଜ୍ୟ ପିପିଆସ ପରିଚାଳନା କର୍ମସମିତି
ରାଜ୍ୟ ଚଳନା, ଭୁବନେଶ୍ୱର

ସଚରାଜନତା ଓ ସଚର୍ଚ୍ଚିତା ହିଁ ପୁରୁଷା !

 ଓଡ଼ିଶା ରାଜ୍ୟ ସରକାର

ସାବଧାନ !
ସାବଧାନ !

ଅଂଶୁଘାତକୁ ସାବଧାନ

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

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

ସରକାରୀ ଡାକ୍ତରଖାନାରେ ଅଂଶୁଘାତ ରୋଗୀଙ୍କ ଚିକିତ୍ସା ପାଇଁ ସୁବିଧା କରାଯାଇଛି ।

ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର

ପ୍ରସ୍ତୁତି : ରାଜ୍ୟ ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ପ୍ରତିଷ୍ଠାନ, ଓଡ଼ିଶା

ଅଂଶୁଘାତ !

ସାବଧାନତା ହିଁ ସୁରକ୍ଷା

ବଦଳିତ ସିନା ସୂର୍ଯ୍ୟ ଉତ୍ତେଜ ଖାଲି ଖାନ୍ତା ଓ ପ୍ରଚୁର ପାଣି ପିଅନ୍ତୁ ।
ଓଦା ଗାମୁଛା ଓ ପାଣି ବୋତଲ ସାଥରେ ନିଅନ୍ତୁ ।

ପଖାଳ, ଚରଭୁଜ, ଓ କାକୁଡ଼ି ରତ୍ୟାଦି ଖାଆନ୍ତୁ ।

ଚୋରାଣି, ଚାଳିପାଣି, ଦେଇପଣା, ସରବତ, ଘୋଳ ଦହି ଏବଂ ଓ.ଆର୍.ଏସ୍ ଘୋଳ ପିଅନ୍ତୁ ।

ଛତା, ବୋତା, ବୋଟି, ପରଡ଼ି, ବନା ଚଷମା, ମୂତା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।

ମାଦକ ଦ୍ରବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଅସ୍ୱଚ୍ଛି ଅନୁଭବ ବଳେ ଡାକ୍ତରଙ୍କ ପରାମର୍ଶ ନିଅନ୍ତୁ ।

• ଉପରୋକ୍ତ ଉପାଦାନ ୧୩/୧୪ ପାଠ୍ୟପୁସ୍ତକର ଅନୁ ଉପରେ ଆଧାର ରଖି ତିଆରି କରାଯାଇଛି ।

• ଉପରୋକ୍ତ ଉପାଦାନ ସମସ୍ତଙ୍କୁ ସହଜ ଭାବେ ଉପଯୋଗୀ କରିବା ପାଇଁ ଉପଯୋଗୀ ଭାବେ ତିଆରି କରାଯାଇଛି ।

• ଉପରୋକ୍ତ ଉପାଦାନ ଉପରେ କୌଣସି ମତାମତ ଉପସ୍ଥାପନ କରାଯାଇ ପାରେ ।