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District Disaster Management Authority Dhenkanal



Foreword

Heat Wave Management Action Plan-2023 has been prepared as there is continuous increase of heat in the month of March to June over the past several years. Heat wave of Odisha took a toll of 2042 people in 1998. In later years 2005, heat wave casualty was massive and it took causality of 236 people in its grip. Now it is more challenging to address the issue and spread more awareness to mitigate and manage the heat wave and minimize the risk factor. The present Heat wave action plan has been prepared by taking all the stakeholders planned action points to be taken at appropriate time in dealing with the heat wave during the month of April to June to minimize the adverse impacts. The role and responsibilities of all Block/ Tahasil level officers of the concerned line departments as well as other Stake Holders were taken in preparing the action plan.

Heat Wave Management Action Plan-2023 with special focus on management of water scarcity in the identified vulnerable wards/villages in the Municipality/NACs as well as Blocks in the district. It is focused on zero casuality, reduction of morbidity due to heat wave and generation of awareness regarding heat wave management at the community level.

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Abbreviation

DDMA : District Disaster Management Authority

DEOC : District Emergency Operation Centre

ADM : Additional District Magistrate

AWC : Anganwadi Centre

BDO : Block Development officer

BCR : Block Control Room

CCA : Climate Change Adaptation

CDM&PHO : Chief District Medical &Public Health Officer

CDPO : Child Development Project Officer

CMRF : Chief Ministers Relief Fund

DCR : District Control Room

DDM : District Disaster Manager

DEOC : District Emergency Operation Centre

SEOC : State Emergency Operation Centre

DRDA : District Rural Development Agency

DSWO : District Social Welfare Officer

DRR : Disaster Risk Reduction

GoI : Government of India

GP : Gram Panchayat

HRVA : Hazard Risk and Vulnerability Assessment

IAY : Indira Aawas Yojana

MO : Medical Officer

NGO : Non-Government Organisation

OSDMA : Odisha State Disaster Management Authority

OIC : Officer In charge

PDS : Public Distribution System

PHC : Primary Health Centre

PWD : Public Works Department

RD : Route Distance

SP : Superintendent of Police VSO : Veterinary Stock officer

W&CD : Women & Child Development

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UNDP : United Nations Development Programme

NIDM : National Institute of Disaster Management

CDKN : Climate & Development Knowledge Network

RTO : Regional Transport Officer

MVI : Motor Vehicle Inspector

CSO : Civil Supply Officer

ACSO : Assistant Civil Supply Officer

SI : Supply Inspector

MI : Marketing Inspector

DSWO : District Social Welfare Officer

SDWO : Sub-divisional Welfare Officer

DAO : District Agriculture Officer

AAO : Assistant Agriculture Officer

VAW : Village Agriculture Worker

ADMO : Additional District Medical Officer

Block MO I/C : Block Medical Officer In-charge.

ASHA : Accredited Social Health Activist

DEO : District Education Officer

BEO : Block Education Officer

CDVO : Chief District Veterinary Officer

ADVO : Additional District Veterinary Officer

LI : Life stock Inspector

DLO : District Labour Officer

LI : Labour Inspector

RRB : Regional Rural Bank.

ATM : All Time Money

VDMC : Village Disaster Management Committee.

VDMP : Village Disaster Management Plan.

WKS : Ward Kalyan Samiti

MAS : Mahila Arogya Samiti

GKS : Gaon Kalyan Samiti

SFDRR : Sendai Framework for Disaster Risk Reduction.

COVID 19 : Corona Virus Disease 19

Chapter 1

Introduction

The normal temperature is $\geq 40^{\circ}$ C. Any increase from the above normal temperature is called Heat Wave. In our District as reported by Indian Metrological Department (IMD), Bhubaneswar that in coming April, May and June the temperature will rise upto $\geq 48^{\circ}$ C (Recorded 48° C in 2023). A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heat Waves typically occur between March and June, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death. When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared. Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.

The heat wave action plan aims to provide a framework for implementation, coordination and evaluation of extreme heat response activities in block/ GPs that reduce the negative impact of extreme heat. The plan also aims at risk of heat related illness in place where extreme heat conditions exist and to take appropriate precautions.

The Heat Wave Action plan is very important in mitigation the risk involved in heat related disaster. The long term, medium term and short term measures include the followings-

- Identification and evaluation of factors leading to disproportionate increase in temperature in the block and GPs.
- Generating a heat wave risk and vulnerability map for developing strategic mitigation action plan.
- Mapping of hotspots within the block and integrating with vulnerability assessment.
- Measures to reduce temperature in these hotspots by developing vertical gardens, small parks with a water fountain etc must be developed.
- Integrating heat action plan with block development plan. Block development plan should focus on reducing the heat stress and water scarcity within the black and GPs.

Rationale For Preparation of HAP (Heat Action Plan)

Odisha is generally known for natural calamities like-Cyclone, thunder storm, heat waves, flood, drought etc. 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. Dhenkanal district of Odisha recorded the day high time temperature as touches to 41 to 49 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 actionplan, 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 Dhenkanal 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 extremeheat 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≥ 45°C
- Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}$ 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.

State / District level preparedness

- i. Review Meeting: Meetings of Nodal officers at State / District / Block level to be convened for review of the preparedness activities to meet the challenges of Heat Related Illness (HRI).
- **ii**. **Pre-position of Drugs** / **Logistics**: Provision of adequate supply of ORS, IV Fluids, essential medicines and life saving drugs to be ensured at all the health institutions till Health Sub Centre Level. The stock to be made available with MPHW (F/M), ASHA & Anganwadi workers (AWW) as per the suitability and sufficiently ahead of heat wave conditions.
- **Sensitisation meetings:** All categories of health personnels should be sensitized on heat stress disorders, its prevention and management.

Infrastructure Preparedness:

- ✓ Ear marked beds should be kept in readiness at a cool well-ventilated ward at MCH/SDH/CHC/PHC/ HWC, Casualty and to be branded as Heat Stroke Room.
- ✓ In the DHH, SDH & CHC / PHC wherever possible functional A.C / Coolers/Fans are to be made available & to be utilized in the heat stroke room.
- ✓ Provision of Ice & Ice cold water at MCH/DHH / SDH / CHC & PHC as per requirement & availability.
- ✓ DG Set to be made available for uninterrupted Electric Supply.
- ✓ Cold water should be stored in earthen pots/Water Cooler in each health institutions.
- ✓ ORS corner should be opened at all health institutions at OPD / IPD / other places.

✓ All Ambulances & other CHC vehicle to be kept in roadworthiness for referral of patients.

Monitoring:-

- ✓ Control Room to be operational at SSU/ MCH/SDH/CHC/PHC from 1st 2021 March to July 31st as per instruction of SRC, Bhubaneswar, Odisha.
- ✓ Daily reporting of cases and deaths to be done through the revised prescribed formats of GOI. (Reporting format 1(A),1 (B), 2, 3(A), 3(B) enclosed).
- ✓ Even a Nil report is required to be sent.
- ✓ Daily report should be collected from all health institution by evening.
- ✓ Compiled & transmitted it to the state health control room by Fax or E-mail by 12 noon of next day.
- ✓ This report is being transmitted by State Control Room daily to the Revenue Control Room and GOI.
- ✓ Investigation of suspected heat related illness Deaths to be filled by Epidemiologist/MOs and sent to the State for compilation.
- ✓ Death Inquiry: Reports regarding death of a person due to heat related illness either at work place or any other area when received should be jointly inquired by local Revenue Officer and local Medical Officer of a PHC, CHC, SDH & DHH (to be nominated by SDMO & CDMO in case of SDH & DHH). The report to that effect should be sent to District Magistrate & Collector & the copy of the report need be sent immediately to State Health Control Room over Fax or e-mail.

IEC Activities –

An intensive IEC campaign to be launched to keep people inform about Do's & Don'ts as regards exposure to heat wave, fluid intake, regulation of work, clothing, protective device & work environment during the heat wave period.

- a. Health Worker (M & F), Health Supervisors (M & F), PHEIO, Medical Officer should resort to Inter personal communication to propagate the messages as this is the most effective media with maximum reach. During field visit group discussions can be initiated & emphasis should be given on preventive aspect.
- b. Leaf lets to be distributed & Poster displayed at strategic places of people
- c. IEC campaign through print & electronic media to be conducted through Deptt. of SIH & FW.

Inter Sectoral Coordination

Coordination between Revenue & Disaster Management Deptt., PRI & Drinking Water Deptt., H & UD, W & CD Deptt., RWSS, Education, ST & SC Deptt. & Health is of utmost importance to focus the attention, mobilize resources, manage the heat wave condition & minimize the suffering of the community. The Officials at their respective places are expected to have close liaison with different department.

Chapter 2

District Profile:

Centrally located on the Geo-political map of Odisha, Dhenkanal district owes its name to its headquarters town. It is commonly believed that Dhenkanal town has been named after the Savar chief named Dhenka who formerly ruled over this tract. A district with unique history of its own, Dhenkanal has been popular as a famous religious site for a period of over 100 years. The latitude of Dhenkanal, Odisha, India is 20.819277, and the longitude is 85.384933.

Administrative Setup:

The Collector and District Magistrate is the administrative head of the district. For smooth running of administration he is assisted by Additional District Magistrates, Deputy/Assistant Collectors, Sub-Collectors, Block Development Officers and Tahasildars. In addition to this there are District level officers of other departments. Though they are under the administrative control of their respective departmental heads but the Collector as the administrative head of the district exercises general supervision over them. The district consists of 3 sub-divisions namely Dhenkanal, Hindol & Kamakshyanagar and each sub-division is under the administrative control of a Sub-Collector. For smooth running of revenue administration, the district is divided into 8 Tahasils viz. Bhuban, Kamakshyanagar, Parajang, Dhenkanal, Hindol, Gondia, Kankadahad and Odapada and each Tahasil is kept in charge of a Tahasildar. Similarly, for carrying out the developmental activities smoothly the district is divided into 8 C D Blocks and each C D Block is under the administrative control of a Block Development Officer.

There are 14 numbers of Police Stations, 12 numbers of Outpost in the district. It may be mentioned here that a portion of Bhusan Steel Ltd. P.S is also lying in Anugul district. Similarly, for looking after development of urban areas, there are 4 numbers ULBs namely Dhenkanal (M), Kamakshyanagar (NAC) and Bhuban (NAC), Hindol(NAC) and each town is under the administrative control of an Executive Officer. Apart from these, two villages namely Saranga and Indipur having urban characteristics have been declared as non-statutory towns i.e. Census towns during 2011 census. The abstract of different units are as follows.

Sl	Name of	Name of the	R.I	Total	Name of	No.	Wa	Total	ULB(Urban
.	Sub-	Tahasil	Circ	Num	the	of	rd.	No. of	Local Body)
N	Division.		le.	ber of	Block	GP.		Inhabi	
О				Reve				ted	
				nue				Villag	
				Villa				e.	
				ge.					
1	Dhenkan	Sadar	10	177	Sadar	30	399	164	Dhenkanal(Munic
2	al.	Gandia	10	193	Gandia	29	426	195	ipality)

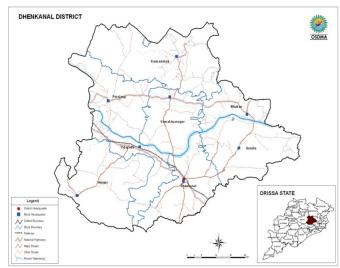
3		Odapada	9	150	Odapada	28	419	150	
4	Hindol.	Hindal	12	189	Hindal	35	446	186	Hondol(NAC)
5		Parjang	10	97	Parjang	29	361	98	
6	Kamakh	Kamakhyana gar	7	176	Kamakh yanagar	22	296	152	Kamakhyanaga r(NAC)
7	yanagar.	Kankadahada	7	126	Kankada hada	21	276	130	
8		Bhuban	6	131	Bhuban	18	258	135	Bhuban(NAC)
	Total	8	71	1239	8	212	2881	1210	4

Sl. No	Particulars	No.	Remarks
1	No. of villages	1239	
	Total Population	1192811	
2	a. Male	612593	
	b. Female	580218	
	c. Children	114162	
3	No. of Blocks	8	
4	No. of Gram panchayat	212	
5	No. of Tehsil	8	
6	No. of RI circle	71	
7	No. of Police Stations	12	
8	No. of Fire Stations	8	
9	No. of Urban Local Bodies	4	
10	No. of Sub-centres	1	
11	No. of PHC	21	
12	No. of CHC	6	
13	No. of Sub-Divisional Hospital	4	
14	No. of Veterinary hospitals	9	
15	No. of Anganwadi Centres	2232	
16	No. of ASHA	2224	
17	No. of Colleges	12	
18	No. of Schools	1518	
19	No. of Odisha AdarshVidyalaya	8	
20	No. of Rural Water Supply system		
21	a) No. of Tube Wells	13114	
22	b) No. of tube well Functional/running	12474	
22	c) No. of tube well dysfunctional	142	

23	d) No. of tube well dysfunctional but	98	
	repairable		
24	e) No. of tube well having solar power	nil	
25	f) No. of Mega Water Supply	3	
26	No. of Temporary Shelters	12	
27	No. of Night Shelters	1	

Climate & Rainfall:

Climate of the district is generally of high humidity. May is usually the hottest month. Occurrence of large number of fire accidents is a regular feature of the district during the summer months i.e. April to May. December is the coolest month of the year. The average minimum and maximum temperatures are 19.6° C and 33.3°C respectively. The humidity is generally high varying from 31 to 88%. Dhenkanal District has a moderate



climate. The District experiences heat with high humidity during April and May and becomes cold during the winter months, i.e. December and January. December is usually the coldest month of the year with the mean daily minimum temperature of 13.9°C.

Monsoon generally commences from 14th June every year. Average rainfall of the district is 1428.8 mm. The rainfall during June to December constitutes at least 75% of the annual rainfall of the district. There are averages 73 rainy days in a year in the district. Normal and actual rainfall of Dhenkanal district for the last 14 years is as follows-

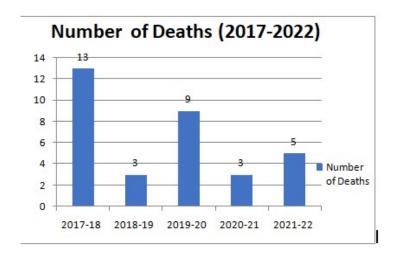
SL.NO.	YEAR	NORMAL RAINFALL (IN MM.)	ACTUAL RAINFALL (IN MM.)	DEVIATION FROM NORMAL
1.	2009	1428.8	1471.5	+2.98
2.	2010	1428.8	1127.38	-21.1
3.	2011	1428.8	1489.18	+4.2
4.	2012	1428.8	1477.5	+3.8
5.	2013	1428.8	1639.64	+14.7
6.	2014	1428.8	1429.76	+0.07
7.	2015	1428.8	1021.25	-28.5
8.	2016	1428.8	1207.77	-15.47
9.	2017	1428.80	1132.59	-20.72

10.	2018	1428.80	1620.08	+191.28
11.	2019	1428.80	1463.88	+35.08
12.	2020	1428.80	1644.93	+216.13
13.	2021	1428.80	1477.38	+48
14.	2023	1428.80	1421.69	-7.11

Heat Wave Condition in Dhenkanal District-

Dhenkanal is surrounded by mountains and mostly a plateau region. Dry Climate prevails during summer. The highest temperature recorded is $49\,^{\circ}$ C in the year 2017-18.

Year	Number of Deaths
2017-18	13
2018-19	3
2019-20	9
2020-21	3
2021-22	5



Chapter 3

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 use 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 along with Color code, Meaning, Temperature Details and Action Needed such as Green colour signifies No action in a Normal Day during which Maximum temperatures are near normal Comfortable temperature, Yellow Alert (Be updated) signifies moderate heat which is likely to persist for 2 days during which Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.

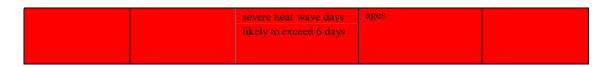
Avoid heat exposure once receive the Orange Alert (Be prepared) Severe Heat Alert for the day

- (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 eitherexposed 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 onecosystems 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) cautionaryaction required
Yellow Alert Heat (Beupdated)	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	Severe Heat Alert forthe 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 ormore.	Increased likelihood of heatillness 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. Avoiddehydration
Red Alert (Take action)	Extreme Heat Alert forthe Day	A. Severe heat Very likelyto persist for 2 days. B. Total number of heat/	Very likelihood of developing heat illness and heat strole in all	Extreme care neeed for vulnerable people



Monitoring Heat wave by DDMA

Based on IMD observations, heat conditions of District are analyzed on a daily basis by DDMA 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.

Information Dissemination

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.

Chapter 4

PREPAREDNESS MEASURE

Department wise specific preparedness measures

A. Special Relief Organization (SRO)

Under the direction of the Special Relief Commissioner the SRO would ensure the following:

- ✓ Issue appropriate directives to the concerned departments for taking preparatory and precautionary measures for Heat Wave management.
- ✓ Posters and IEC materials on safety tips relating to heat-wave are prepared and distributed by Department of Health & Family Welfare for general awareness of the public. Advertisements on such safety tips to be given through local newspapers ,radio and television channels.
- ✓ To instruct All India Radio, Door darshan and other private Television channels to organize discussions and other programmes for creating public awareness.
- ✓ Issue directives to Department to Forest and Environment, Fisheries and Animal Resources, Women and Child, Health and Family Welfare and OSDMA for awareness activities, provision of water and essential preparatory measures concerning Heat Wave management.
- ✓ Action Plan is prepared for mitigating water scarcity problems in different towns and rural areas, where acute scarcity of drinking water is felt.. Required numbers of water tankers are to be deployed for supply of drinking water and defunct tube wells to be replaced / repaired. Essential medicines, saline and ORS packets to be stored in the District Headquarters Hospitals, Community Health Centers and Primary Health Centers. Special arrangements to be made and separate beds are earmarked for treatment of heat-stroke patients in different Hospitals.
- ✓ The working hours for daily laborers need to scheduled i.e. from 6a.m.to11a.m. and 3.30 pm to 6pm.Orders to be given to make provision of drinking water at the worksites.
- ✓ Plying of buses during peak hours i.e. between 11.00AM to 3.30PM will be regulated.

 Orders must be given to carry portable water and ORS in public transport vehicles.
- ✓ Power distributing companies to be instructed to ensure uninterrupted power supply in summer.
- ✓ The time table of the schools to be re-scheduled from 6.30AMto10.30AM.
- ✓ Facilitate involvement of Civil Society Organizations for taking different mitigation activities.
- ✓ An amount of Rs.50,000/-as ex-gratia relief to the bereaved family of each heat stroke victim is provided by the State Government.

B. 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.

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

- ✓ 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.
- ✓ ThescrollingnewsonHeatWaveneedstobetelecastindifferentTVchannels.Thepublicationsofa dvertisementsonHeatWaveindifferentOdianewspapersneedstobemadefortheawarenessofpu blic.
- ✓ 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 stockof medicines.
- ✓ General Public would be advised to keep wide-mouthed water pots out side 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 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 self less services to the affected livestock and poultry population in face of possible Heat Wave situations. Steps maybe 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.

D. 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.

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

- ✓ Display heat alerts and precautionary measures at strategic points.
- ✓ Providing shelter and shades in open and high congregation places
- ✓ Opening of the parks during peak hours.
- ✓ Providing drinking water through water kiosk (Jal Chhatras) at strategic points
- ✓ Water supply to slums through tankers.
- ✓ Public announcements through public address system.
- ✓ Restrict plying of city public transport.
- ✓ Provision of ice pack, first aid and water at City public transport vehicles plying during peak hours.
- ✓ Provision of vats (near tube wells) for drinking water for animals.
- ✓ Provision for Water sprinkling to settle down the suspended particles on roads.
- ✓ Issue advisories for Albedo painting of office building. /houses/apartment/schools/hospitals and other buildings.
- ✓ Provision of funds for Heat Wave management.
- ✓ IEC/BCC activities through Ward Kalyana Samiti(WKS),MahilaArorgya Samiti(MAS) ,urban ASHA under NUHM in Dhenkanal Municipality.
- ✓ Regular conducting of meeting of the <u>WKS</u> and <u>MAS</u> in each ward of the Dhenkanal Municipality having an agenda on Heat wave Management apart from other agenda. The said meeting must be attended by concerned health staff without fail.
- ✓ Provision of water kiosk (Jal Chhatra) at strategic point in each ward and untied fund of MAS may be utilized for the said under the supervision of WKS.

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

✓ DIPROshould coordinate with all Block Development Officer/Tahsildars to take steps for wide public awareness through leaflets and posters of "DO"s & Don'ts" issued by the Health & Family Welfare Department that are to be disseminated through Print & Electronic Media and Co-ordinate with all related line departments at district level and report compliance.

- ✓ On receipt of warning message from IMD/ Rev. Control room through District Control Room the DIPRO to make the general public alert by using local media.
- ✓ 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 announ- cements, 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 1& PR Department function for the purpose and supervise the smooth functioning and dissemination of updated information relating to Heat Waves.
- ✓ Media briefings on updated information as and when necessary must be sharedunder the supervision of higher authorities atSub-Division/District&Statelevel.

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

- ✓ Issue directives for Heat Wave prevention and management for industries and mines.
- ✓ Generate awareness through IEC activities.
- ✓ Provision for water sprinkling to settle down the suspended particles.
- ✓ Provision of funds for Heat Wave management.

H. Department of Health and Family Welfare (Cirdcular No.5759, dated 17.03.2022)

- ✓ Capacity building of Health Care Service Providers (Doctor, Nurses, Pharmacist and health workers) on diagnosis and management 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.).
- ✓ Cool hospital initiatives for hospitals (Albedo painting).

- ✓ Special attention towards high-risk patients like geriatric/pediatric/pregnant women etc.
- ✓ Timely submission of autopsy report in case alleged/death due to Sunstroke.
- ✓ Training of 108 Ambulance staff 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 KishoriSwasthya 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 system through the ASHA/ ANM/ health workers for effective and immediate assessment of heat stroke cases.
- ✓ Development of specific reporting form for heat related events including morbidity and mortality.
- ✓ Regular conducting of GKS meeting in each GKS with proper follow-up and monitoring and having an agenda on Heat wave Management apart from other agenda of the meeting. The said meeting must be attended by concerned health staff.
- ✓ Provision of water kiosk (Jal Chhatra) at strategic point of GKS out of the GKS/GP untied fund.
- ✓ Coordinate with private hospitals to collect heat related morbidity and mortality data.
- ✓ Provision of power back up during summer at institution level.
- ✓ IEC/BCC activities through Ward Kalyana Samiti(WKS), Mahila Arorgya Samiti(MAS) ,urban ASHA under NUHM in Dhenkanal Municipality.
- ✓ Regular conducting of meeting of the WKS and MAS in each ward of the Dhenkanal Municipality having an agenda on Heat wave Management apart from other agenda. The said meeting must be attended by concerned health staff without fail.
- ✓ Provision of water kiosk (Jal Chhatra) at strategic point in each ward and untied fund of MAS may be utilized for the said under the supervision of WKS.
- ✓ Awareness on Heat Wave to students of AWC, Schools(Day/Residential) through RBSK,MHT staff as per their micro plan.
- ✓ ADPHCO and PHEO will be responsible for awareness and IEC/BCC activities district and block level respectively.
- ✓ Timely launching of Anshughata Ratha and awareness generation in the district. The said Action plan to be provided to District Emergency section for appraisal of the Collector &DM.
- ✓ Provision of funds for Heat Wave management.

Table 1. Spectrum of Heat Related Illness

Heat Related Illness	Clinical Presentation	Treatment
Heat edema	 Mild swelling of feet, ankle and hands Appears in few day s of exposure to hot environment Does not progress to pre tibial region 	 Usually resolves spontaneously within days to 6 weeks Elevate leg Compressive to choking Diureticsare not effective
Prickly Heat	 Pruritic, maculopapular, erythematous rash normally over covered areas of body Itchiness Prolonged or repeated heat exposure may lead to chronic dermatitis 	 Antihistamine Wear clean, light, loose fitting clothing Avoid sweat generating situations Chlorhexidine in a light cream or lotion base Calamine lotion
Hea Cramps	 Painful, involuntary, spasmodic contractions of skeletal muscle (calves,thighs and shoulder) Occur in individuals sweating profusely and only drinking water or hypotonic solutions Limited duration Limited to certain muscle group 	 Fluid and salt replacement(IV or oral) Rest in cool environment
HeatTetany	 Hyperventilation Extremity/s and circum oral paresthesia Carpopedal spasm 	 Calm the patient to reduce respiratory rate Remove from hot environment
Heat Syncope	 Postural hypotension Commonly in non-acclimatized elderly 	 Rule out other causes of syncope Removal from hot environment Rest and IV drip
Heat Exhaustion	 Headache, Nausea, Vomiting Malaise, Dizziness Muscle cramps Temperature < 40°C or normal May progress to heatstroke if fails to improve with treatment No CNS involvement 	 Remove the patient from heat stress area Volume replacement If there is no response to treatment in 30 minutes, then aggressively cool the patient to core temperature of 39°C
Heat Stroke	 Core body temperature >40°C Signs of CNS dysfunction, (Confusion, delirium, ataxia, seizures, coma) Other late findings: anhidrosis, coagulopathy, multiple organ failure 	 Remove the patient from heat stress area Volume replacement If there is no response to treatment in 30 minutes, the aggressively cool the patient to core temperature of 39°C (further details later in document)

Table.2 Heat Related Illnesses: Clinical Manifestation

Clinical Entity	Cardinal Symptoms	Cardinal/ ImportantSigns	Pertinent Negative findings
Heat rash/ Prickly heat/Miliaria	Itchy Rash with Small Red BUMPS at pores in the skin. Seen in 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 and 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 And Weak, unsteady, feeling of Vomiting, Sweaty And Thirsty, inability to continue activities	Sweaty/diaphoretic, flushed skin, hot skin, Normal Core Temperature, +/-dazed, +/- generalized weakness, slight disorientation	No coincidental signs and symptoms of infection; no focal weakness; no difficulty in swallowing food or speech; no drug/overdose history
Heat Syncope	Feeling hot and weak; lightheadedness followed by a Brief Loss Of Consciousness	Brief, generalized loss of consciousness in hot setting, short period of disorientation, if any	No Seizure Activity, no loss of bowel or bladder continence, no focal weakness, no difficulties in swallowing or speech
Heat Stroke	Severe overheating, profound weakness, Disorientation, Not Fully Alert, Convulsion, Or Other Altered Mental Status	Flushed, Dry Skin (notalways), CoreTemp ≥40°C OR 104°F; altered mental status with disorientation, incoherent behaviour, Coma, Convulsion, tachycardia +/-hypotension	No coincidental signs and symptoms of infection; no focal weakness; no difficulties in swallowing or speech, no drug/overdose history

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

- ✓ Issue directives for flexible working hours to restrict heat exposure with effect from March to June 2023 and submit enforcement reports at regular intervals.
- ✓ Guidelines for workers to protect from heat exposure and provision of First Aid, drinking water and cooling space at work site.

- ✓ Awareness activities for construction workers, factory laborers, manual laborers and workers whose occupations require intensive work outdoors during extreme heat about the risks, signs, and symptoms of heat stress.
- ✓ Training on heat illness diagnosis and management for factory medical officers.
- ✓ Advisory for one A/C relief chamber at factory facilities for emergency
- ✓ Ensuring health centers/dispensary are open during peak summer hours.
- ✓ Ensure overseeing construction sites, quarries, factories and other vulnerable worksites, particularly during high temperature periods, to enforce labor laws related to heat safety.
- ✓ Provision of funds for Heat Wave management.

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

- ✓ Prepare Vulnerability map.
- ✓ Sensitize vulnerable population on Heat Wave
- ✓ Public announcement about the do's and don'ts issued by the department of Health and family welfare and OSDMA.
- ✓ Provision of water kiosks, tube wells, tankers at strategic locations.
- ✓ Provision of funds in department budget for capacity building.
- ✓ Encourage for alternative livelihood activities & rescheduling of works.
- ✓ Encourage for alternative livelihood activities. Restrict the working hours from 11 AM to 3 PM under MGNREGA.
- ✓ Provision of funds for Heat Wave management.
- ✓ Supply of Drinking water and shade nets at working sites.
- Construction of ponds, artificial lakes for cooling the environment by evaporation
- ✓ Identification of cooler places.
- ✓ Provide cool shelter during summer (must be explored through innovation and partnership.
- ✓ The water scarcity village as per experience in the last summer to be identified and preventive measures will be taken at the time of necessity for supply of drinking water through Tankers / Tractors loaded with water Tanks etc.
- ✓ Provision of funds for Heat Wave management.

Procedure of Enquiry/autopsy on Alleged Sunstroke Death:-

• It is clearly mentioned in the GO no-1936/R&DM (SR) Dt. 01-06-2015 of the Principal Secretary to Govt.& SRC.

Condition -1

Where a person is admitted to a hospital/Medical institution after being affected by a disaster and his or her death has occurred during treatment in such hospital/medical institution, the cause of death reported by the treating Medical Officer may be referred for sanction of the ex-gratia assistance. But, no opinion is formed by the treating Medical Officer about the cause of death in such cases, post mortem should be carried out for ascertaining the same.

Condition-II

In case of report of death of a person due to heat wave/sun stroke, except where the death has occurred in a hospital/Medical institution after being admitted and treated there, in addition to the postmortem report, a joint enquiry will be conducted by the local Revenue Officer authorized by the Collector/Sub-Collector and local Medical Officer of the PHC/SHC/CHC/DHH, which will be taken into consideration for sanction of the ex-gratia.

Reporting & Submission of FIR & Case Record: Tahasil.

- ✓ Submission of weekly report as per Format-II.
- ✓ Submission of information along with every Joint Enquiry Report as per Format-I.
- ✓ Timely submission of FIR & Case Record.
- ✓ Timely Release of ex-gratia to NoKs.
- ✓ Ex-gratia amount for Sun stroke -Rs50000/-(Rupees Fifty Thousand Only)

K. 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 out door activity.

L. 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.

M. 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.

N. 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 association so 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

O. Energy Department (circular No. 1567, dated 24.02.2022) TPCODL

- Create awareness among people on energy conservation.
- ✓ Develop a policy for power cuts depending on vulnerable areas and population.
- ✓ Guideline for workers of the department.
- ✓ Power shedding should be cut down/reduced during severe heat (frequency and timing).
- ✓ The timing should be announced before one day.
- ✓ Frequency and regularities should be maintained
- ✓ Preventive repair & maintenance
- ✓ Provision of power back up for life line institute.
- ✓ Provision of funds for Heat Wave management.
- ✓ Supply will not be affected during Summer-2023 except in any emergency situation such

- asunder frequency, tripping of power transformers, feeder faults, planned shutdown for execution of Govt. work with prior announcement etc.
- ✓ TPCODL 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.
- ✓ TPCODL 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.
- ✓ 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/overloadingandconsequentsnappingofconductorsincoordinationwiththeSubTransmissionSystem.

P. 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.

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

- ✓ Ensure proper registration of tourists who are visiting the district.
- ✓ 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
- ✓ Provisioning of alternative safe drinking water at tourist spots on payment basis.
- ✓ Provision of funds for Heat Wave management.
- ✓ Mapping of high-risk zones (e.g.Dhenkanal, Angul, Sundergarh, Cuttack, Khordha, Ganjam) under the guidance of Indian Meteorological Dept. (IMD)conducting workshops for the District Tourist Offices 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.
- ✓ 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.

R. 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)/ Panipanchayat.

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.

S. 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 Departmenti .e, carrying drinking water, ORS packets and umbrella or use capor while stepping out side on duty.
- ✓ Restrict visit of Senior Citizens and PwDs to out side 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.

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.
- ✓ AllHMs, 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

✓ 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)

- ✓ The DSWO, Dhenkanal will take public awareness campaign with special focus on children, pregnant & lactating mothers in order to protect them from dehydration.
- ✓ Use the Village Health Nutrition Day (VHND) and RI sessions for creating awareness and educate adolescents and mothers regarding precautionary measures for Heat Waves and its related health impacts.
- ✓ Display IEC materials at Anganwadi Centres and encourage integrated child development scheme (ICDS) workers to disseminate Heat Wave related information with special focus on infants, children below five years, pregnant and lactating mothers, and geriatric population to protect them from dehydration.
- ✓ Provision of drinking water and first aid at all the Anganwadi Centers, old age homes, orphanages.
- ✓ Provision of funds for Heat Wave management.

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.

Institutional Mechanism for Heat wave management

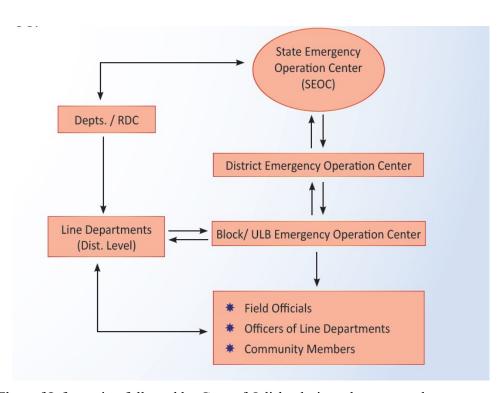


Fig-1: Flow of Information followed by Govt of Odisha during a heat wave alert.

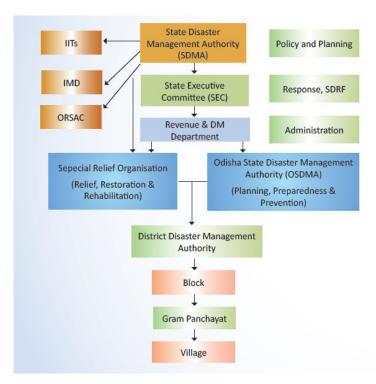


Fig 2-: Institutional Mechanism for Heat wave management
Newspaper Clippings on District Level Heat Wave Management Meeting Held on 10.3.23







IEC Materials on Heat Wave



Heat waves are a leading cause of extreme weather-related deaths in the U.S.

Who's at RISK in EXT REME HEAT?









Adults over 65, children under 4, people with existing medical conditions, and those without access to air conditioining

What can you DO?

Stay Cool

- Avoid direct sunlight
- Keep home cool by turning on air conditioning or running fans
- Take cool showers or baths

Stay Hydrated



- Don't wait until you're thirsty to hydrate
- Avoid alcohol or liquids containing large amounts of sugar
- Remind others to drink enough water throughout the day

Stay Informed





Visit Cal OES's Heat Resources page to learn more about how you can protect yourself and your loved ones in extreme heat at caloes.ca.gov









ଓଡ଼ିଶା ଜାବ୍ୟ ବିପର୍ଯ୍ୟୟ ପ୍ରଶମତ । ଜନ୍ମପଞ୍ଚଳ ବଳଫରୁ କମହିତରେ ପ୍ରବାଶି



Important Contact Numbers DEOC Room-06762-226507

Heat Wave DOs and DON'Ts

DOs

Heat Wave conditions can result in physiological strain, which could even 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 a 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.

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

Employer s 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.

Annexure

Important Contact Numbers

SI.		Designation	OfficeNo.	MobileNo	Email.Id
No	Officers				
1	,	DM CumCollector, Dhenkanal	225601(O), 226500(R),2257 1 7(Fax)	9437174051	dm-dhenkanal@nic.in
2	Sri Gyanaranjan	SP,	06762-225777	9861434343	spdkl.odpol@nic.in
		Dhenkanal			1 1
3	Shri Tanmay Kumar Darwan	CDOCum EO	06762-224506	9777130279	ori- ddhenkanal@nic.in
4	Sri Ramesh	ADM,	06762-225700	8763166161	dkl.adm@nic.in
_		Dhenkanal			
5		District Emergency Officer	06762-226507	9776009500	dklemgy@gmail.com
6		DRR Consultant, Dhenkanal	06762-226507	8249015565	dklemgy@gmail.com
7	Dr Ashok Dash	CDMO& PHO	06762-226423	9439981081	cdmodkl2012@gmai l.com
10	Sri Sudhir Kumar Nayak	BDO, Sadar	06762-224485	8249099734	ori- bdhenkanal@nic.in
11	_	BDO,	06762-264022	7048923363	ori-
_	Murmu	Kankadahad	0.5750.001101	2422244224	kankadahad@nic.in
	Sri Asish Kumar Sahu	BDO, Gondia	06762-231124	9439044896	ori-gandia@nic.in
	Sri Shivsankar Mishra	BDO,Hindol	06762-251242	6372651997	ori-hindol@nic.in
14		BDO, Kamakhyanagar	06762-270446	9818594213	ori-kamakhyanagar@nic .in
15		BDO, Parjang	06762-261021	8847859651	ori-parajang@nic.in
16	Sri Manmath Kumar Nayak	BDO, Odapada	06762-256035	7504258414	ori-odapada@nic.in
17		BDO,	06762-272024	9937176714	ori-bhuban@nic.in
1.0		Bhuban	0.07.00.000.00	2222222	
	Sri Sudhansu Sekhar Sao	Tahsildar, Dhenkanal			tah.dhenk-od@nic.in
19	Sri Susanta Kumar Mishra	Tahsildar,Hindol	06762-251241	9078006589	tah.hindol-od@nic.in
20	Sri Omprakash Mohanty	Tahsildar, Kamakhyanagar	06762-270445	9437788457	tah.kamakhya-od@nic.in
21	Sri Siriyal Subhra Patel	Tahsildar, Parjang	06762-261098	8249354772	tah.parjang-od@nic.in
22	Smt Baninivedita	Tahsildar, Odapada	06762-256555	8917586695	tah.odapada-od@nic.in
23	Sri Anshuman Mahapatra	Tahsildar, Bhuban	06762-272025	8249250015	tah.bhuban-od@nic.in
	Sri Asish Kumar Sahu	Tahsildar, Gondia	06762-231324	7008782459	tah.gindia-od@nic.in

25	Sri Chinmaya Das	Tahsildar, Kankadahad	06762-264121	7048923363	tah.kankad-od@nic.in
25	Sri Jatindra Kumar Mishra	EO, Kamakhyanagar	06762-270336	9437007113	kamakhyanagarn.hud@ori.n ic.in
26	Sri Tarun Kumar Mohapatra	EO, Dhenkanal	06762-224401	9337013841	dhenkanalm.hud@g mail.com
27	Sri Shyamasundar Sahoo	EO, Bhuban	06762-272023	9861247000	bhubann.hud@ori.ni c.in
28	Sri M Srinivas	EO, Hindol	06762-251054	8763300255	eohindol13@gmail.c om
29	Smt Rashmita Mishra	City/Municipal Engineer	9438300884	9438300884	dhenkanalm.hud@gmail.co m
30	Sri Surendra Kumar Behera	Executive Engineer, RWSS	9437107027	9437107027	eerwss-dkl@nic.in
31	Sri Benudhar Das	Executive Engineer, Tata Power	7853876100	7853876100	ee.ded@tpcentralodisha.com
32	Sri Prasant Kumar Dhal	Asst Fire Officer, Dhenkanal FS	97764 25711	97764 25711	Dklfirestation@gmail.com
33	IndianRed Cross	Vice President	7008403039	7008403039	bnpany@gmail,com
34	NGO, Bhuban	VicePresident ISSARA	9437426534	9437426534	santoshjea05@gmail.com
35	NGO, Odapada	Vice President ISWAR	9438444507	9438444507	iswar1970@gmail.com
36	NGO,Hindol	Vice President New Odisha	7735382347	7735382347	Newodissa5623@gmail.com
37	NGO, Kankadahad	Vice President ABCD	8249914157	8249914157	abcdngo@gmail.com
38	NGO, Parjang	Vice President Bibartan	6370184274	6370184274	Bibartan1440@gmail .com
39	NGO, Dhenkanal, Kamakhyanagar	Vice President Self Help	9437155440	9437155440	selfhelpngo@gmail.com
40	NGO, Gondia	Vice President NAMM	9438177758	9438177758	nammindia@gmail.com
41	Commandant ODRAF	2 nd battalion OSAP, Dhenkanal	94371 29246	94371 29246	comdt2ndbn.orpol@nic.in

SL No	Name of the CHC/PHC/PHC(N)	HEAT STROKE CELL	ED STRENGTH W	COOLER	A/C	Cold Drinking Water Source	Electricity available or not	Remarks
		В	ELTIKIRI					
1	Banasing	1	1	0	1	Yes	Yes	
_	Dhirapatna	1	791 91	0	1	Yes	Yes	
	Sankarpur	1	1	0	1	Yes	Yes	
.	Tarabha	1	1	1	0	Yes	Yes	
_	Beltikiri	1	1	1	1	Yes	Yes	
_	Bhapur	1	1	1	1	Yes	Yes	,
_	Baladiabandha	1	1	1	0	Yes	Yes	
	Duiddiabailaila	-	BIRASAL					
1	Kantapal colony	1	1	1	0	Yes	Yes	
_	Kankadahada	1	1	1	1	Yes	Yes	
	Birasal	1	1	1	1	Yes	Yes	
	Pangatira	1	1	1	0	No	Yes	
_	Mahabirroad	1	1	1	1	Yes	Yes	
	Mariabirioua	KHA	JURIAKATA				E.C.	
1	Bedapada	1	1	1	1	No	Yes	
_	Dudurkote	1	1	1	1	No	Yes	
_	Hatura	1	1	1	1	No	Yes	
	Paika Purunakote	1	1	1	1	No	Yes	
	Rasol	1	1	1	1	No	Yes	
	K.Kata	1	1	1	1	Yes	Yes	47
_	SDH Hindol	1	2	1	1	Yes	Yes	
	ODITIMO		DAPADA					
1	Balarampur	1	1	1	0	Yes	Yes	1200
_	Nimidha	1	1	0	0	No	Yes	
	Kalanga	1	1	1	0	No	Yes	
_	Odapada	1	2	0	1	Yes	Yes	
_	AH Meramandali	1	2	1	1	Yes	Yes	
	All Melalialidali	-	//KGOLA			12/12		
1	Parus	1	1	1	1	No	Yes	
_	Barua	1	1	1	1	No	Yes	
	Mahulpal	1	1	1	1	No	Yes	
- 1	Marthapur Odisho	1	1	0	1	No	Yes	
4			1			1 110	1 63	The state of the s

INSTITUTION WISE CONTROL ROOM WITH PHONE NO.

SL.No	Name of the CHC/PHC/PHC(N)	CONTROL ROOM PHONE NO	CONTACT PERSON
		BELTIKIRI	
1	Banasingi	9439991392	Dr Swata Sagarika
2	Dhirapatna	9439991353	Dr Dinakrushna Das
3	Sankarpur	7008670047	Dr Sambit Satyabrata Nanda
4	Tarabha	7008955192	Dr. Monica Dash
5	Beltikiri	9692746353	Dr.Bijita Suvadra Satapathy
6	Bhapur	8456894580	Dr Bibhudutta Mishra, Ayush
7	Baladiabandha	7008167330	Dr.Sushanta Kumar Prusty
	BIR	ASAL	
1	Kantapal colony	7008129425	Dr.Banani Barik
2	Kankadahada	8658174618	Dr. Sushree Sangita Biswal
3	Birasal	9439981166	Dr. Ramagobinda Mohanty
4	Pangatira	9439991356	Dr. N. Panigrahi
5	Mahabirroad	6370924950	Dr. M.Mund
	KHAJU	RIAKATA	
1	Bedapada	9439981101	Dr Ajaya Mohapatra
2	Dudurkote	9861051001	Dr K.Swain
3	Hatura	9348408168	Dr Anupama Samal
4	Paika Purunakote	9439981102	Lili Mahapatra
5	Rasol	7008955106	Dr D.Prusty
6	K.Kata	7008513161	Dr Sagar Pradhan
7	SDH Hindol	9437109369	Dr S.S. Mishra
	ODA	PADA	
1	Balarampur	9437292231,	Dr Kamalakanta Rout
2	Nimidha	9439981082,	Dr Soumyaranjan Mohanty
3	Kalanga	7008499193	Dr Arun Sahoo
4	Odapada	9439991416	Dr A.K.Roul
5	AH Meramandali	8895358695	Madhaba Mohaptra, Pharamacist
	MKGOLA		
1	Baruan	8280083288	Dr Gitanjali Nathasharma
2	Mahulpal	9337699061	Dr.Puspanjali Behera
3	Marthapur	7008505042	Dr Asutosh Mohanty
4	Odisho	7008680564	Dr.Sradhanjali Bariki
5	M.K.Gola	9439980700	Dr. B. Majhi
6	Jiral	7008845821	Dr Subramanyu Sahoo
7	AH Bhuban	9668345325	Dr Ramesh Ch Sahoo

INSTITUTION WISE CONTROL ROOM WITH PHONE NO.

SL.No	Name of the CHC/PHC/PHC(N)	CONTROL ROOM PHONE NO	CONTACT PERSON		
	ABE	RENI			
1	SDH K.Nagar	9439980615	Dr Subash Chanadra Mandal		
2	Guneibil	9439980630	Dr B.N.Maharana		
3	Kantilo-Kateni	7978323215	Dr.K.C.Patra		
4	Sirimula(Kuruma)	9438253939	Dr Debesh Mohapatra		
5	Analaberini	9439980610	Dr Pramil Padhan		
	SC	PUR			
1	Deogan	9439980559	Dr Subhalaxmi Mohapatra		
2	Joranda	7008628297	Dr Nishikanta Muduli		
3	Karmul	9439991375	Dr Prasanta Kumar Sethi		
4	Kendupada	7008078041	Dr.Swadhin Ratha		
5	Khankira	7008093930	Dr Krushna Chandra Roy		
6	Pingua 9439991377 Dr Suc		Dr Suchismita Rout		
7	SCPur	9439980555	Dr SthitaPragyan Mohanty		
	PAI	RJANG			
1	Dadaraghati	9178260238	Dr Jyotish Panigrahi		
2	Kumusi	9439980542	Dr S.Samal		
3	Muktaposi	9439980539	Dr Ajaya Kumar Nayak		
4	Patrapada	9439980541	Dr Shiba Prasad Nath		
5	0.400000542		Dr Sibani S Nayak		
	DHH, I	Dhenkanal			
1	DHH, Dhenkanal	06762-226636, 9439981040	Casuality DHH,Dkl		
2	DPHO, Dhenkanal	06762- 295 704 9439980500,9437093998	Dr J.C.Mohapatra, Asish Pradhan MPHS (M)		

	INSTITUTION WISE	GENERATOR / INVERTOR FAC	ILITY REPORT	
SL.No	N	Electricity available or not	Generator / Invert	
		BELTIKIRI		
1	Banasing	Yes	Invertor	
2	Dhirapatna	Yes	Invertor	
3	Sankarpur	Yes	Invertor	
4	Tarabha	Yes	Invertor	
5	Beltikiri	Yes	Generator / Inverto	
6	Bhapur	Yes	Invertor	
7	Baladiabandha	Yes	Invertor	
		BIRASAL		
1	Kantapal colony	Yes	Invertor	
2	Kankadahada	Yes	Generator / Invertor	
3	Birasal	Yes	Generator / Invertor	
4	Pangatira	Yes	Invertor	
5	Mahabirroad	Yes	Generator / Invertor	
		KHAJURIAKATA	in the same	
1	Bedapada	Yes	Invertor	
2	Dudurkote	Yes	Invertor	
3	Hatura	Yes	Invertor	
4	Paika Purunakote	No	Invertor	
5	Rasol	Yes	Invertor	
6	K.Kata	Yes	Generator / Invertor	
7	SDH Hindol	Yes	Generator / Invertor	
		ODAPADA		
1 E	Balarampur	Yes	Invertor	
2 N	limidha	Yes	Invertor	
3 K	alanga	Yes	Invertor	
4 0	dapada	Yes	Generator / Invertor	
5 A	H Meramandali	Yes	Generator / Invertor	
		MKGOLA	2	
_	arua	Yes	Invertor	
-+	ahulpal	Yes	Invertor	
_	arthapur	Yes	Invertor	
_	disho	Yes	Invertor	
5 M	K.Gola	Yes	Invertor	

	e say the transfer		
SL.No	Name of the CHC/PHC/PHC(N)	Electricity available or not	Generator / Invertor
6	Jirala	Yes	Generator / Invertor
7	AH Bhubana	Yes	Generator / Invertor
		ABERENI	
1	SDH K.Nagar	Yes	Generator / Invertor
2	Guneibil	Yes	Invertor
3	Kantilo-Kateni	Yes	Invertor
4	Sirimula(Kuruma)	Yes	Invertor
5	Analaberini	Yes	Generator / Invertor
		SCPUR	
1	Deogan	Yes	No
2	Joranda	Yes	Invertor
3	Karmul	Yes	Invertor
4	Kendupada	Yes	Invertor
5	Khankira	Yes	Invertor
6	Pingua	Yes	Invertor
7	SCPur	Yes	Invertor
		PARJANG	
1	Dadaraghati	Yes	Invertor
2	Kumusi	Yes	Invertor
3	Muktaposi	Yes	Invertor
4 F	Patrapada	Yes	Invertor
5 F	Parajanga	Yes	Generator / Invertor
		DHH, Dhenkanal	
1 0	онн	Yes	Generator / Invertor