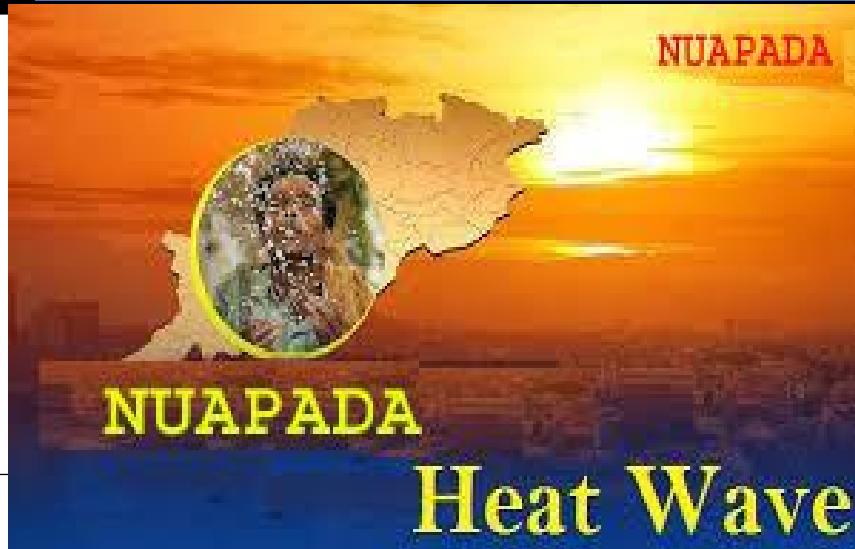


2023

Heat Wave Action Plan, Nuapada



FOREWORD

As climate change intensifies, disruption to traditional global atmospheric circulation system, such as the jet stream in the earth atmosphere, as expected across the planet leading to more frequent and intense extreme climate events. As a result, extreme heat waves will become more common worldwide because of rising average global temperature. This weather pattern, coupled with the El-Nino effect, is increasing the temperatures in Asia. Further, high humidity compounds the effects of the temperatures being felt by human beings. Extreme heat can lead to dangerous, even deadly, consequences, including heat stress and heatstroke. Nuapada is also vulnerable to the impacts of climate change.

Keeping in view Nuapada has a history of extreme heat conditions and the District Administration has taken various preparatory measures over the years to reduce the fatalities due to Heat Waves. The district has been witnessing an increasing trend of Heat Wave for the past few years due to global warming.

Considering steady increase in temperature and frequent and prolonged occurrences of Heat Wave in the District it was decided to include preventive and adaptive measures in the Heat Action Plan (HAP) 2023 to build resilience of the people in line with the local and livelihood needs. As per NDMA Guideline Heat Wave action plan 2022-23 aims to facilitate the stakeholders in preparing a Heat Wave Management plan by providing insight into the heat related illness and the necessary mitigative and response actions to be undertaken. It would also help in mobilization and coordination of various departments, individuals and communities to focus on heat reduction aspects to help and protect their neighbors, friends, relatives and themselves against avoidable health problems during spell of very hot weather. I hope that HAP will be used by the different stakeholders including policy makers, administrators, government officials and field level functionaries for guidance and implementation of timely measures to tackle the Heat Wave in the district.

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ABBREVIATION

AAO	: Assistant Agriculture Officer
ACSO	: Assistance Civil Supply Officer
ADMO	: Additional District Medical Officer
ADVO	: Additional District Veterinary Officer
AIR	: All India Radio
ASHA	: Accredited Social Health Activist
BEO	: Block Education Officer
CBDM	: Community Based Disaster Management
CCI	: Child Care Institution
CDAO	: Chief District Agriculture Officer
CDMO	: Chief District Medical Officer
CDVO	: Chief District Veterinary Officer
CHC	: Community Health Centre
CSO	: Civil Supply Officer
DEO	: District Education Officer
DLO	: District Labour Officer
DMR	: Digital Mobile Radio
DPC-SSA	: District Project Coordinator, Sarva Shiksha Abhiyan
DPM	: District Programme Manager
DRDA	: District Rural Development Agency
DSSO	: District Social Security Officer
DSWO	: District Social Welfare Officer
EWD	: Early warning dissemination
EWDS	: Early Warning Dissemination System
HAP	: Heatwave Action Plan
I & PR	: Information & Public Relation
IDRN	: India Disaster Resource Network
IMD	: India Meteorological Department
IMD	: India Meteorological Department
LI	: Labour Inspector
LI	: Livestock Inspector
MI	: Marketing Inspector
MO	: Medical Officer
MVI	: Motor Vehicle Inspector
OSPCB	: Odisha State Pollution Control Board
PHC	: Primary Health Centre
RTO	: Regional Transport Officer
RTU	: Remote Terminal Unit
SBMDVT	: Satellite Based Mobile Data Voice Terminal
SI	: Supply Inspector
VAW	: Village Agriculture Worker
MPY	: Matsya Pokhari Yojana
PMMSY	: Pradhan Mantri Matsya Sampada Yojana
VHND	: Village Health Nutrition Day
RI	: Routine Immunization

RI	: Revenue Inspector
ANM	: Auxiliary Nurse Midwife
NCLP	: National Child Labour Project
MGNREGS	: Mahatma Gandhi National Rural Employment Guarantee Scheme
OPWD	: Odisha Public Work Department
PWSS	: Pipe Water Supply Scheme
WUA	: Water User Association
SNP	: Supplementary Nutrition Programme
MOFS	: Ministry of Earth Sciences
WRF	: Weather Research & Forecasting
GFS	: Global Forecast System
GEFS	: Global Ensemble Forecast System
NCUM	: National Center for Medium Range Weather Forecasting
GIS	: Geographic Information System
SRO	: Special Relief Organisation
IEC	: Information Education Communication
ORS	: Oral Rehydration Solutions
ARD	: Animal Resources Development
VD	: Veterinary Dispensaries
LAC	: Livestock Aid Center
NGO	: Non-Govt. Organisation
CBO	: Community Based Organisation
NGT	: National Green Tribunal

INTRODUCTION :

India, with approximately 1.42 billion people is the second most populous country in the world with considerably high levels of population density. India is among the worst disaster prone countries of the world. As per 2011 census, 31% of India's population live in urban areas and 69% live in rural areas. The trend shows that the number of persons living in urban areas will continue to grow at a faster rate than the population in the rural areas due to migration and increasing urbanization.

The World Meteorological Organization century, this is directly affecting the communities; (WMO) statements on global climate during 2011 and 2012 indicate that the global temperatures are continuing to increase.

Heat -waves are projected to increase in number, intensity and duration over the most land area in the 21st undermining their livelihoods through gradual, insidious changes in temperature and rainfall patterns, and resulting in increased frequency and intensity of hazards such as floods, cyclones, droughts, unseasonal rains and hailstorms, causing extensive damage to crops and agro-rural economy. Heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the pre-monsoon (April to June) summer season. Heat — waves typically occur between March to June, and in some rare cases even extend till July. Heat waves are more frequent over the Indo-Gangetic plains of India. On an average, 5- 6 heat wave events occur every year over the northern parts of the country.

The most notable amongst the recent ones are Hyderabad (Andhra Pradesh) 46 °c, Khammam 48 °c ,Jharsuguda (Odisha) 45.4° C, Bhubaneshwar (Odisha) 44° C, Allahabad (Uttar Pradesh) 47.8 °C , Delhi

46.4° C, Jashpur (Chattisgarh) 44.5 °C, Kolkatta (West Bengal) 44.5 °C, Gaya (Bihar) 46.3 °C, Nagpur (Vidarbha region in Maharashtra) 47. I °c, Kalburgi (Karnataka) 44. I °c and Churu (Rajasthan) 48.0 °C in 2015. The extreme temperatures combined with high humidity and resultant atmospheric conditions adversely affect people living in these regions leading to physiological stress, sometimes even death. This unusual and uncomfortable hot weather can impact human and animal health and also cause major disruption in community infrastructure such as power supply, public transport and other essential services.

Heat wave is also called a "silent disaster" as it develops slowly and kills and injures humans and animals nationwide. Higher daily peak temperatures of longer duration and more intense heat waves are becoming increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat wave with each passing year. Importantly, the adverse impact of heat wave are preventable by educating the public on the

preventive actions, following the Do's and Don'ts reporting early to health facilities and timely diagnosis and treatment.

Rationale for Preparing of the Heat Action Plan (HAP) In the Nupada

Rational for Heat wave Action Plan (HAP): Many states are affected during the Heat wave season, such as State of Andhra Pradesh, Telangana, Odisha, Gujarat, Rajasthan, Madhya Pradesh, UttarPradesh, Maharashtra, Bihar, Jharkhand, and Delhi. In 2005, 2015, daily maximum temperature exceeded the average maximum temperature by more than 6°C to 8°C, which resulted in death of 2422 people in India due to heat-wave. However, it is likely that the death figure is much higher as heat related illness is often recorded inaccurately and figures from rural areas are hard to attain. The combination of exceptional heat stress and a predominantly rural population makes India, vulnerable to heat waves. Vegetable vendors, auto repair mechanics, cab drivers, construction workers, police personnel, road side kiosk operators and mostly weaker sections of the society have to work in the extreme heat to make their ends meet and are extremely vulnerable to the adverse impacts of heat waves such as dehydration, heat and sun strokes. Therefore, it is not surprising that these workers, homeless people and the elderly constitute the majority of heat wave casualties in India. It is time to devise a national level strategy and plan to combat this disaster. A comprehensive heat preparedness and response requires involvement from not only government authorities but also nongovernmental organizations and civil society. The local authorities should carry out a vulnerability assessment in order to identify these areas.

Nuapada District Context:

Nuapada district is in the western part of Odisha, lying between latitude 20° 0' N and 21° 5' and between longitude 82° 20' E and 82° 40' E. Its boundaries extend in the north, west and south to Mahasumunddistrict in Chhatishgarh and in the east to Baragargh, Balangir Kalahandi districts. The plains of Nuapada subdivision are fringed by rugged hill ranges stretching southward, which belong to the main line of the Eastern Ghats and contain extensive plateaus of about 4000 ft (1200 m) in elevation. If we discuss the major water bodies which will support in maintain whether condition of the area. The drainage of the district is controlled by the tributaries of the Mahanadi river, like the Tel and Ong rivers. The main tributaries of the Tel are Indra, Udanti, Hatti, Sagada etc. which are perennial and effluent in nature and maintain sluggish flow during peak summer months. The Jonk river is a tributary of the river Mahanadi, flows in the westerly direction and forms the state border in the northwest. But the general drainage pattern in the undulating terrain is dendritic to subdendritic Studies on satellite imageries and hydrogeological surveys have revealed that the drainage pattern in the district is controlled by the fracture system which is developed due to tectonic activity in the area. The climate of the district is subtropical with hot and dry summer and pleasant winter. The summer season extends from March to middle of June followed by the rainy season from June to September. The winter season extends from November till the end of February. Humidity is high during middle of June and it's less in post-monsoon period. The potential evapo-transpiration values varies from 3.62 cm to 23.74 cm. Wind is generally light to moderate. During summer and southwest monsoon months wind velocity increases. From above discussion we observed that Nuapada District very vulnerable to Heat wave situation and provokes its Conditions.

What is Heat Wave:

Heat wave is a condition when the abnormally maximum temperature in a region exceeds the normal maximum temperature, majorly in the western odisha during the summer season. which condition of atmospheric temperature that leads to physiological stress, which sometimes can cause deaths as well

IMD- According to IMD,

In India, as per India Meteorological Department (IMD) classification, Heat wave need not be considered till the maximum temperature in the plain region reaches 40 degrees centigrade, 37 or more for coastal regions & 30 degree centigrade or more for hilly regions.

Following criteria are used to declare a heat wave:

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

WMO- According to World Meteorological Organization (WMO),

Heat wave is said to have occurred when the daily maximum temperature in a region exceeds the normal maximum temperature of that region by 5 degree centigrade for 5 consecutive days. Probable period of occurrence of heat waves is mid-march to June & may extend to July

Heat wave is a condition of atmospheric temperature that leads to physiological stress, which sometimes can cause deaths as well.

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. Different countries define heat wave differently in context of their local conditions.

Goals & Objectives in a nutshell

- ❖ The Heat-Wave Action plan aims to provide a framework for implementation, coordination, and evaluation of extreme heat response activities in cities/town in Nupada. that reduces the negative impact of extreme heat.
- ❖ Institutional role clarity, preparedness, and collaboration
- ❖ Special attention to vulnerable populations
- ❖ Stakeholder communication on preventive and adaptive behaviours
- ❖ Real-time surveillance and Early Warning Systems (EWSs)
- ❖ Short and medium-term strategies for reduced indoor heat exposure
- ❖ Long-term preventative measures related to urban building design, energy and transportation

Aims and Objectives of the Heat Wave action Plan 2023, Nuapada

- i. To identify the areas vulnerable to heat wave in Nuapada district.
- ii. To adopt proactive measures at Nuapada district level by all the govt. departments to prevent heat wave.
- iii. To define and assign the different tasks and responsibilities to stakeholders during the period of Heat Wave.
- iv. To enhance Heat Wave resilience of the people in the Nuapada district by way of capacitybuilding.
- v. Reduce the loss of public and private property, especially critical facilities, and infrastructure, through proper planning.
- vi. Manage future development to mitigate the effect of Heat Wave in the Nuapada district.
- viii. To develop the standardized mechanism to respond to Heat Wave situation to manage the Heat Wave efficiently.
- x. To prepare a response plan based upon the guidelines issued in the State Heat Wave Action Plan so as to provide prompt relief, rescue and search support during Heat Wave.
- xi. To adopt Heat Wave resilient construction mechanism in the district by way of using Information, Education and Communication for making the community aware of the Heat Wave situation.
- xii. To make the use of media during Heat Wave for proper information dissemination.

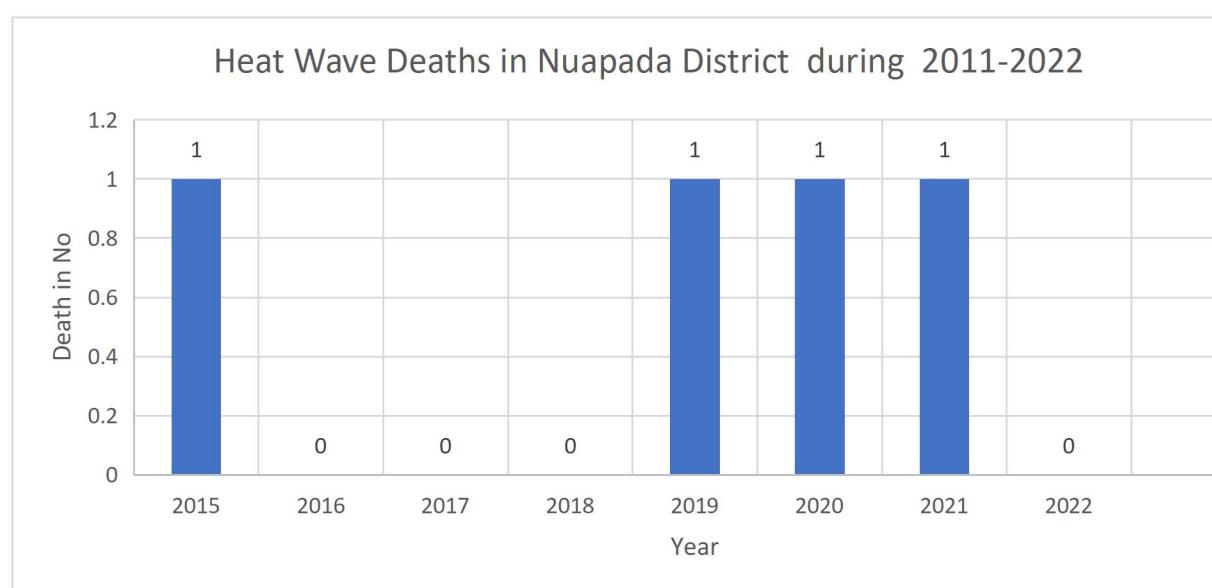
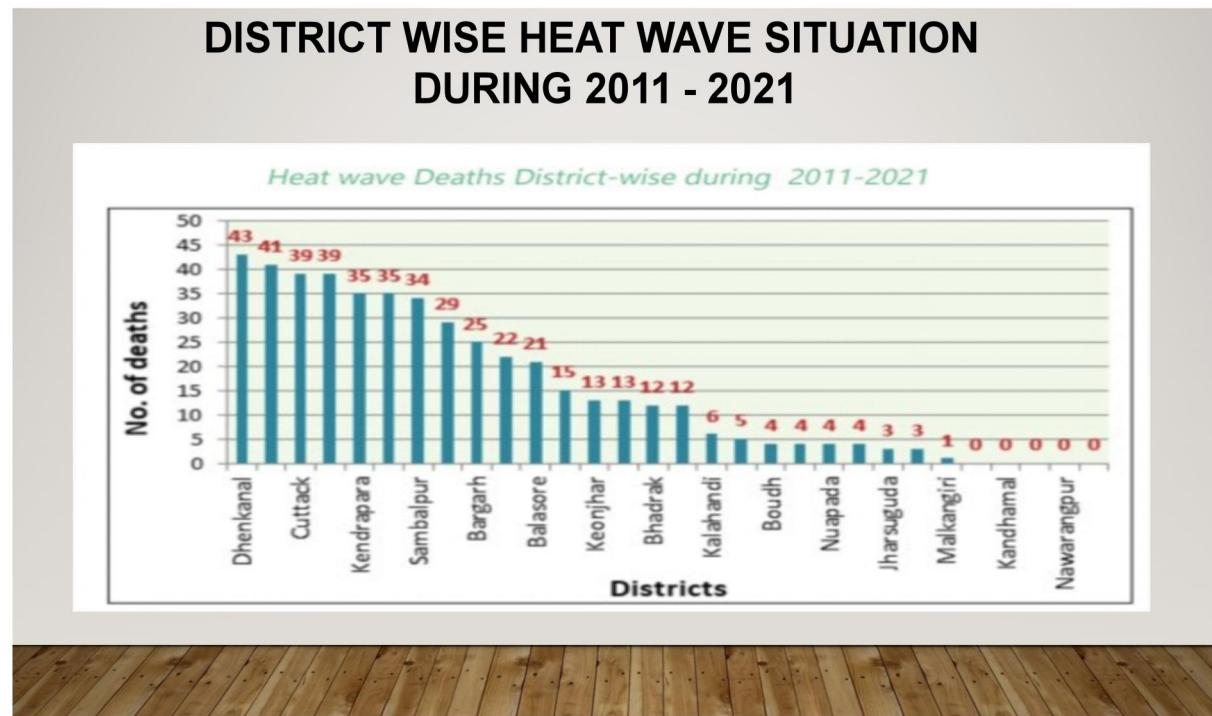
Situation Analysis of the District and Need of the heat wave Action Plan of Nuapada District.

Nuapada district is one of the Economy backward districts with geomorphic variations comprising moderately high hills, isolated hillocks, undulating plains, intermontane valleys etc. The hilly tract lying to the west ranges in elevation from 610 to 915 m. amsl. with an average elevation being 700m. amsl. They are represented by structural hills, denudational hills, ridges, narrow intermontane valleys and escarpment. Denudational hills or residual hills occur in the eastern and

south eastern part of the study area. Lateritic uplands are met within the border areas of hills. Also, the undulating terrain which varies in altitudes from 350 to 240m above mean sea level and occurs bordering the hilly tract has dissected patches of inselbergs and residual hills. The various hydro geomorphological units are flood plains, deep buried Pedi plains, moderately buried Pedi plains, shallow buried Pedi plains, pediment inselberg complex, pediment, intermontane valleys, linear ridges, residual hills, denudational hills and structural hills. The distribution of different soil types in the district depends much on its physiographic and lithologic variations. Based on the physical and chemical characteristics, mode of origin and occurrence, soils of the district may be classified into three groups namely Alfisols, Ultisols and Vertisols ,Low and irratatic rain fall causes dry atmosphere in the district.

2- Death Occurs During 2011 to 2021 in Odisha and Nuapada

If you look into the figure shows in graph Nupada district have contributed 4nos of causality from 2015 to 2022.Consucatively 3 causality in three years



Whether Condition In the Nuapada District Odisha

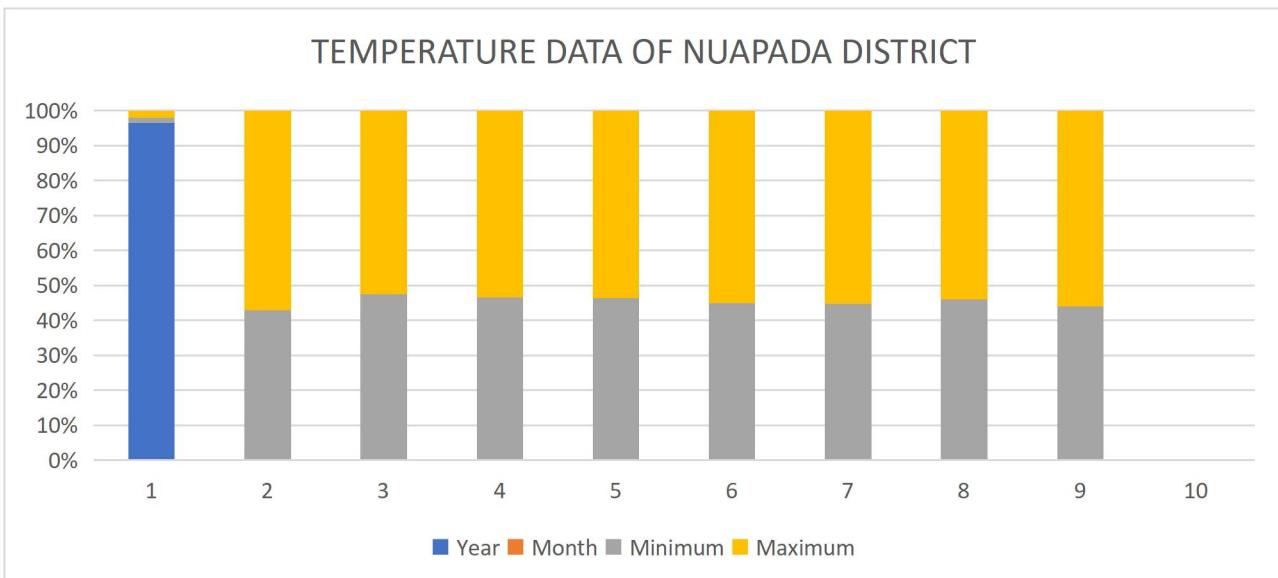
Nuapada Extended Forecast with high and low temperatures



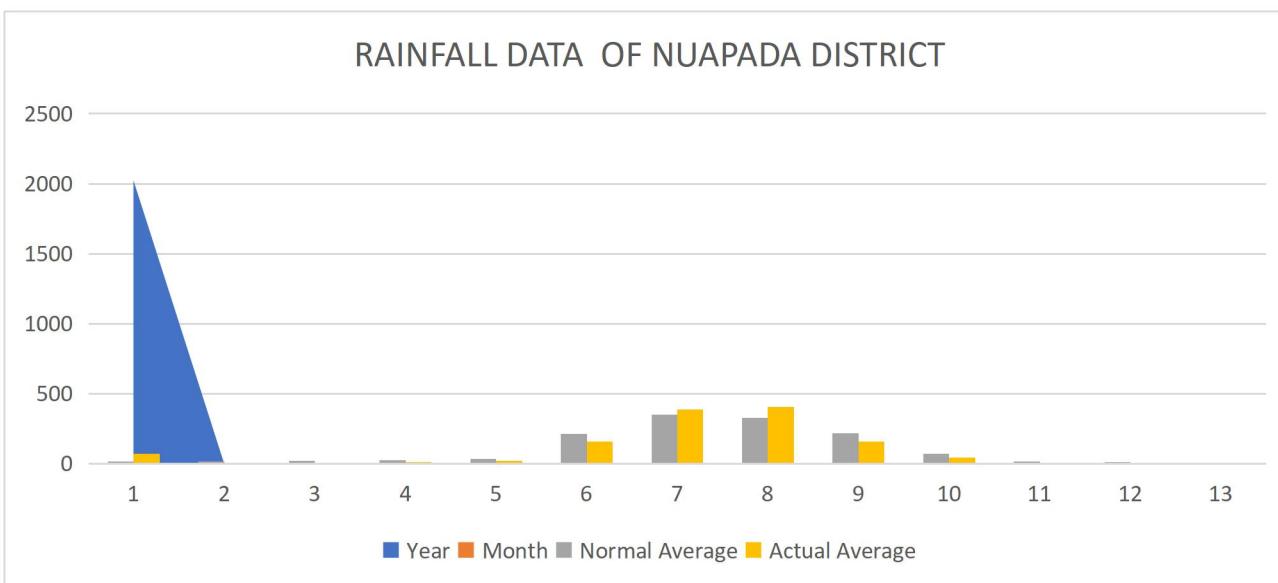
2 Week Extended Forecast in Nuapada, Odisha, India

Day	Conditions			Comfort			Precipitation		Sun		
	Temperature	Weather		Feels Like	Wind	Humidity	Chance	Amount	UV	Sunrise	Sunset
Tue 14 Mar	36 / 18 °C	Overcast.		33 °C	10 km/h ↑	19%	1%	-	7 (High)	06:09	18:08
Wed 15 Mar	36 / 21 °C	Overcast.		33 °C	10 km/h ↗	20%	1%	-	7 (High)	06:08	18:09
Thu 16 Mar	34 / 22 °C	Showers late. Overcast.		30 °C	16 km/h ↗	37%	70%	12.4 mm	7 (High)	06:08	18:09
Fri 17 Mar	26 / 20 °C	Light rain. Overcast.		26 °C	10 km/h ↗	56%	15%	0.3 mm	5 (Moderate)	06:07	18:09
Sat 18 Mar	28 / 18 °C	Light rain. Cloudy.		25 °C	13 km/h ↗	68%	21%	4.2 mm	7 (High)	06:06	18:10
Sun 19 Mar	30 / 18 °C	Light rain. Cloudy.		28 °C	9 km/h ↑	47%	24%	2.4 mm	7 (High)	06:05	18:10
Mon 20 Mar	33 / 20 °C	Overcast.		30 °C	17 km/h ↗	34%	3%	-	3 (Moderate)	06:04	18:10
Tue 21 Mar	34 / 20 °C	Afternoon clouds.		32 °C	12 km/h →	24%	40%	0.1 mm	5 (Moderate)	06:03	18:11
Wed 22 Mar	34 / 19 °C	Mostly sunny.		32 °C	8 km/h ↗	19%	6%	-	5 (Moderate)	06:02	18:11
Thu 23 Mar	34 / 20 °C	Afternoon clouds.		32 °C	16 km/h →	20%	6%	-	5 (Moderate)	06:01	18:11

3-Temperture data of District.



4-Erratic rain fall data of District



5-Dry tributaries

The drainage of the district is controlled by the tributaries of the Mahanadi River, like the Tel and Ong rivers. The main tributaries of the Tel are Indra, Udanti, Hatti, Sagada etc. which are perennial and effluent in nature and maintain sluggish flow during peak summer months. The Jonk river is a tributary of the river Mahanadi, flows in the westerly direction and forms the state border in the northwest. But The general drainage pattern in the undulating terrain is dendritic to sub dendritic Studies on satellite imageries and hydrogeological surveys have revealed that the drainage pattern in the district is controlled by the fracture system which is developed due to tectonic activity in the area. Water Body : (Development & Renovation) During the year 2015-2016, six water bodies have been renovated with an estimated cost of Rs 14,80,839/-

5- Climatic Situation of the District

The climate of the district is subtropical with hot and dry summer and pleasant winter. The summer season extends from March to middle of June followed by the rainy season from June to September. The winter season extends from November till the end of February.

Humidity is high during middle of June and it's less in post-monsoon period. The potential evapo-transpiration values varies from 3.62 cm to 23.74 cm. Wind is generally light to moderate. During summer and southwest monsoon months wind velocity increases. From above discussion we observed that Nuapada District very vulnerable to Heat wave situation and provokes its Conditions.

District At a Glance :

Sl. No	Particulars	No.	Remarks
1	No. of villages	669	
2	Total Population	610382	
	a. Male	301962	
	b. Female	308420	
	c. Children	88344	
3	No. of Blocks	05	
4	No. of Gram panchayat	132	
5	No. of Tehsil	05	
6	No. of RI circle	44	
7	No. of Police Stations	11	
8	No. of Fire Stations	03	
9	No. of Urban Local Bodies	3	
10	No. of Sub-centres	01	
11	No. of PHC	17	
12	No. of CHC	05	
13	No. of Sub-Divisional Hospital	01	
14	No. of Veterinary hospitals	05	
15	No. of Anganwadi Centres	1406	
16	No. of ASHA	1089	
17	No. of Colleges	09	
18	No. of Schools	1085	
19	No. of Odisha Adarsh Vidyalaya	05	
20	No. of Rural Water Supply system	230	
21	a) No. of Tube Wells	10322	
22	b) No. of tube well Functional/running	10322	

22	c) No. of tube well dysfunctional	10322	
23	d) No. of tube well dysfunctional but repairable	125	
24	e) No. of tube well having solar power	324	
25	f) No. of Mega Water Supply	05	
26	No. of Temporary Shelters	05	
27	No. of Night Shelters	05	

Stake Holder involve in Plan /Know your Stake holder

- **CDO Cum EO Zillaparishada.**
- **District information and public relation officers**
- **Super intendent police Nuapada**
- **Chief District Medical and Public health Officers**
- **Water Resource**
- **Women And Child development**
- **District Social Security Officer**
- **Divisional Forest Officer**
- **District Fire Officer**
- **District Welfare Officer**
- **RWSS Nuapada**
- **PHD Division Bhawanipatana .**
- **E.O NAC Nupada/Kahariar/Khariara Road**
- **ALL BDO Nuapada /All tahsildar Nuapada.**
- **E.E TPWDOL Nuapada.**
- **District Labour Officer.**
- **Department of Industry/ Steel and Mines**
- **Department of Tourism/ Culture**
- **Department of Forest and Environment**
- **Department of Fisheries and Animal resources**
- **Civil Society Organizations/ Private Sectors**

Inter-coordination between departments

- **State Disaster Management Authority (SDMA)**
- **India Meteorological Department (Regional Office)**
- **Housing/ Urban Department Urban Local Bodies**
- **Panchayat Raj Department**
- **Department of Health and Family Welfare**
- **Labour Department**
- **Department of Education**

- **Department of Energy**
- **Department of Water Resources**
- **Department of Industry/ Steel and Mines**
- **Department of Tourism/ Culture**
- **Department of Forest and Environment**
- **Department of Fisheries and Animal resources**
- **Civil Society Organizations/ Private Sectors**

Situation Analysis of the District :

Heat wave & District Vulnerability Profile

District water vulnerability Pocket – Nuapada and Komana. Economic backward and Labour group people lives more in Komana and Boden in comparison to other five blocks. National Food Security Act (NFSA) So far, 3514 applications have been received under these schemes; 2069 eligible beneficiaries have been issued Ration Card. Socio Economic and Caste Census (SECC) Re-enumeration work under the SECC (Urban) 2011 has been completed in this NAC as per instructions issued by the Government. Sensitivity of people to heat depends on several factors, which may modulate adaptive capacity and the ability to cope with extreme temperatures.

Adaptive capacity is further influenced by

- Demographic characteristics (age, gender, family structure)
- Health status (presence of co-morbidities)
- Access to resources
- Support system
- Access to information

Identification of such ‘heat-retention’ areas is critical to minimizing adverse events due to heat wave Y Slums are prevailing in all NAC like

Nuapada NAC.

Numer	Name of the Slum
1	Patnaik pada.
2	Indira Colony
3	Mandir pada

1

Kahriar NAC

Numer	Name of the Slum
4	Bihind Kalayan Manadap ward no -2
5	Purna Bazarpada

Khariar Road NAC

Numer	Name of the Slum
6	Irani Pada ward no -8

- Lower income groups
- Heat retention area

Impact On /Effect

Impact of Heat Wave on Agricultural Productivity

Apart from, impact on human life, the Heat Wave has also been found to profoundly affect crop production both in terms of quantity and quality. Primarily, crop loss happened due to flower drop and higher mortality in new plantations. Kharif crops are more impacted than Rabi crops owing to variability in rainfall associated with Heat Wave. Since, Kharif crops are sown in May to June and harvested in September to October; any extreme change in temperature would affect the productivity. Within Kharif, particularly rice production is significantly affected with decreased grain yield which is a matter of concern as rice is a staple diet of all Odisha's population.

Impact of Heat Wave on Life and Livelihood

The human thermoregulatory system has limits. Our muscles generate heat, which must be shed to the environment to maintain our core temperature of about 36.70C. Evaporation of sweat helps human bodies to keep cool when it is hot, however, when there is excessive sweating it leads to dehydration with consequent rise in internal body temperature which is fatal.

More or less, population might be acclimatized to heat and humidity but there is an upper level of heat tolerance limit. However, acclimatization to heat can only offer limited protection. When temperature soars beyond the tolerance limit, precautionary measures like avoiding the sun and physical exertion, maintaining hydration, and resting in a cool place are suggested. However, serious challenges arise when extreme heat events linger for prolonged periods, as cessation of activities for weeks is often not an option. Especially, majority of Odisha's individuals are working in unorganized and informal sectors that have to earn their daily livelihood. Thus, on the advent of long spells of Heat Wave they either have to stay indoors and compromise their source of income or run the risk of succumbing to Heat Wave related illness upon continuing to work. This necessitates exploring alternate options for such kind of vulnerable population for income generation to sustain a healthy life. In view of the above, there was a need to revisit and strengthen the existing Heat Wave response plan in order to make it more specific and strategic.

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 metrological parameters like Temperature, Relative humidity, pressure, wind speed & direction etc. Based on daily maximum temperature station data, climatology of maximum temperature is prepared for the period 1981-2010 to find out normal maximum temperature of the day for the particular station. Thereafter, IMD declares Heat Wave over the region as per its definition. IMD issues temperature forecast & warnings in following range:

- a) Short to medium range (lead time/validity of 1 to 5 days)
- b) Extended range (lead time/validity upto 4 weeks)
- c) Seasonal range (lead time/validity upto 3 months)

IMD predicts Heat Wave based on synoptic analysis of various meteorological parameters and from the consensus guidance from various regional & global numerical 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/allindiawxfcbulletin.php>.

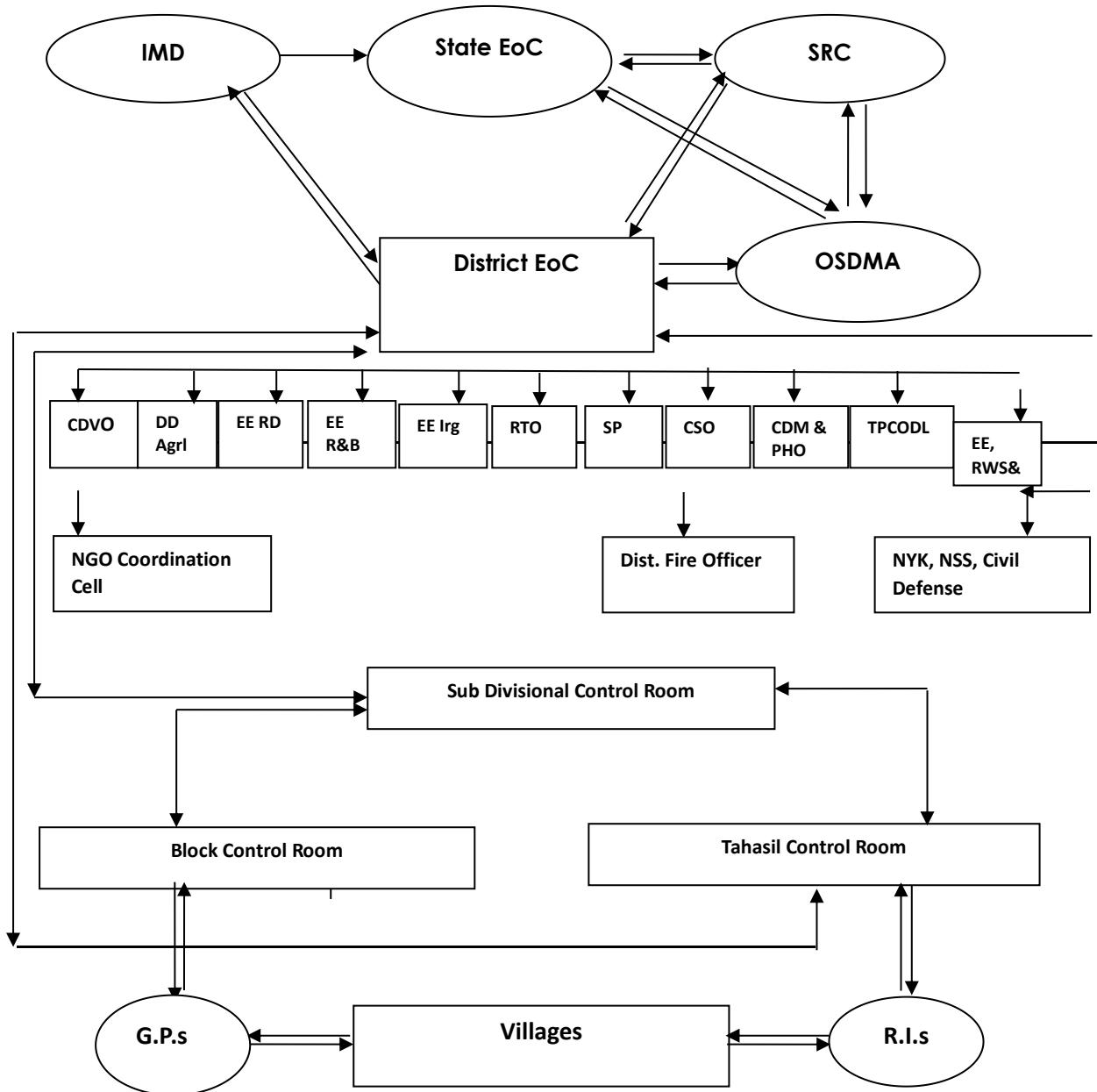
A new system of exclusively heat-related warnings has been introduced with effect from 03 April 2017. These warnings, valid for the next 5(five) days, are issued around 1600 hours IST daily and are provided to all concerned authorities (Departments of Health, Disaster Management, Indian Red Cross and 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>).

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

Information flow chart from District Emergency Operation Center (DEoC) to Villages with early warning



Information Dissemination of Heat Wave Warning: -

- ❖ On receipt of warning messages relating to Heat Wave from I.M.D. / SRC / OSDMA and other higher quarters the District Control Room shall make necessary arrangements to alert the subordinate offices connected with management of calamity adopting necessary measures to combat the heat wave situation to keep the people alert.
- ❖ The warnings shall be disseminated through e-mail, Phone, District What's app Groups, Special messenger. The report on **Heat Wave casualty** should be reported immediately by the

Tahasildar and Medical Officers to the District Emergency Control Room for onward transmission to higher quarters. In case of any causality, it shall be instantly reported to the DEOC by Tahasildars and thereafter joint enquiry report to be submitted within 24 hours and through DAMPs.

- ❖ Colour Code for Heat Wave Warning is given below:

Colour Code	Alert	Warning	Impact	Suggested Actions
Green (No action)	Normal Day	Nil	Comfortable temperatures	No cautionary action required
Yellow Alert (Be updated)	Heat Alert	Heat wave 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 with chronic diseases.	Avoid heat exposure
Orange Alert (Be prepared)	Severe Heat Alert for the day	i. Severe heat wave conditions likely to persist for 2 days. ii. With varied severity, heat wave is likely to persist for 4 days or more.	Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.	Avoid heat exposure—keep cool. Avoid dehydration
Red Alert (Take Action)	Extreme Heat Alert for the day	i. Severe heat wave likely to persist for more than 2 days. ii. Total number of heat/ severe heat wave days likely to exceed 6 days.	Very high likelihood of developing heat illness and heat stroke in all ages.	Extreme care needed for vulnerable people.

Impact & action suggested is based on NDMA Guideline on heat wave
[\(https://ndma.gov.in/images/guidelines/heatwaveguidelines2017.pdf\)](https://ndma.gov.in/images/guidelines/heatwaveguidelines2017.pdf)

This system advises on the severity of an expected heat hazard. However, threshold assessments carried out in different parts of the country tells us that there are different cut-off points that determine the warning signals appropriate for a specific state/ region. 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. Colour code, Meaning, Temperature Details and Action Needed Green (No action) Normal Day Maximum temperatures are near normal Comfortable temperature. Cautionary action required. Yellow Alert (Be updated) Heat Alert Heat wave conditions at district level, likely to persist for 2 days Moderate temperature. Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.

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

3.2: 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.

- Call for a preparatory meeting in the month of March.
- Issue directions to all line departments to take appropriate actions and when required.
- Overall monitoring of the situation in the district.
- Ensure functioning of Control Rooms in all concerned offices.
- Conduct review meeting with all stakeholders if situation arises.

3.3: Information Dissemination through SATARK Application:

SATARK is a decision support system based on the Web / Smartphone that helps to provide early warning information for different risks. It is an application developed by OSDMA in collaboration with RIMES. Once a person downloads the app and gives the location, he / she shall receive Block level & location specific alerts through Mobile App, E-Mail, SMS and other available sources.

The link is https://play.google.com/store/apps/details?id=satark.app.io.ionic&hl=en_IN&gl=US.

- (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. Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. Avoid heat exposure – keep cool. Avoid dehydration.**

Impact on Vulnerabilities

- Impacted by water logging and disrupted infrastructure**
- Impacted by shortage of water**
- Prone to health and fire risks**
- Prone to shortage of power supply and disrupted infrastructure**
- Faces additional stress on ecosystems**

Population impacted

- Commercial units**
- Urban residents**
- Slum residents**
- Women**
- Children and Students**

Heat Wave Preparedness Process adopted at District Level

- 1- Convening District level Preparedness Meeting on 10.03.2023**
- 2- Proceeding Preparation and Communicated to all Line departments**
- 3- District level heat wave action plan prepared and Submitted To SRC/OSDMA**
- 4- IEC/BCC activities**

STRATEGIES TO IMPLEMENT HEAT WAVE ACTION PLAN-

Key strategies on Heat wave plan Implementation:

The heat-wave action plan is intended to mobilize individuals and communities to help protect their neighbours, friends, relatives, and themselves against avoidable health problems during spells of very hot weather. Broadcast media and alerting agencies may also find this plan useful.

Severe and extended heat-waves can also cause disruption to general, social and economic services. For this reason, Government agencies will have a critical role to play in preparing and responding to heat-waves at a local level, working closely with health and other related departments on long term strategic plan.

- ❖ Establish Early Warning System and Inter-Agency Coordination to alert residents on predicted high and extreme temperatures. Who will do what, when, and how is made clear to individuals and units of key departments, especially for health.
- ❖ Capacity building / training programme for health care professionals at local level to recognize and respond to heat-related illnesses, particularly during extreme heat events. These training programmes should focus on medical officers, paramedical staff and community health staff so that they can effectively prevent and manage heat-related medical issues to reduce mortality and morbidity.

Individuals, community groups, and the media are also essential in fighting the effects of extreme heat. Individuals can take specific preventative steps to protect themselves, their families, and their communities from harmful heat waves including

- Talking with their doctor or Health Centre about early signs of heat wave .
- Limiting heavy work during extreme heat -Drinking water -Staying out of the sun
- Wearing light clothing -Checking on neighbors
- informing their fellow community members about how to keep cool and protect themselves from heat.

The media plays an essential awareness-building role by sharing news about health threats, and increases public protection by running ads and providing local resources information. While summer is defined as spanning March, April, and May, Odisha hottest temperatures can run from March through June, with temperatures generally peaking in May and warm days through November.

Across India, higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change; thus the deadly extreme heat events already impacting Nuapada are expected to increase in intensity, length, and frequency in the coming decade.

-  Public Awareness and community outreach Disseminating public awareness messages on how to protect against the extreme heat-wave through print, electronic and social media and Information, Education and Communication (IEC) materials such as pamphlets, posters and advertisements and Television Commercials (TVCs) on Do's and Don'ts and treatment measures for heat related illnesses.
-  Collaboration with non-government and civil society: Collaboration with non- governmental organizations and civil society organizations to improve bus stands, building temporary shelters, wherever necessary, improved water delivery systems in public areas and other innovative measures to tackle Heat wave conditions.

Ex-Gratia Relief

The State Government had earlier made a provision in the Odisha Relief Code for the payment of Rs.10,000/- towards ex-gratia relief to the bereaved family of each heatstroke victim. However, as there is no provision in the State Disaster Response Fund (SDRF) & the National Disaster Response Fund (NDRF) to provide relief to the victims of 'Heat Wave', the State Government was incurring such expenditure out of the Chief Minister's Relief Fund (CMRF). The State Government has declared Heat Wave as a State Specific Disaster with effect from 1st April 2015 under the revised provisions of SDRF/NDRF norms & made the provision for payment of ex-gratia of Rs.50,000/- to the next of kin of heatstroke victims.

Process of Awareness and IEC plan

The proposal is initiated by OSDMA and the concerned nodal officer of Directorate of Public Health (DPH) and it communicates to the State Institute of Health and Family Welfare (SIHFW) which develops the prototype of IEC in consultation with DPH. Once the prototype is approved by DPH, funding is released, and the materials are printed at SIHFW and distributed to districts and to lower levels. For media (print and electronic), the SIHFW sends the prototype to the Information and Public Relations (I&PR) Department. They publish it in newspapers and disseminate it through electronic channels.

PREPAREDNESS MEASURE

Department wise specific preparedness measures

Standarad Operataion Procedures of Different Department and District Administartion and Others

1.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 of 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 be re-scheduled i.e. from 6 a.m. to 11 a.m. and 3.30 pm to 6 pm. Orders to be given to make provision of drinking water at the work sites.
- ◆ Plying of buses during peak hours i.e. between 11.00 AM to 3.30 PM 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 6.30AM to 10.30 AM.
- ◆ 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 heatstroke victim is provided by the State Government.

1. Odisha State Disaster Management Authority (OSDMA)

- ◆ Convene State level meetings to review and update the Heat Action Plan annually and share the revised Plan in a broader platform.
- ◆ Periodic coordination meetings with all the departments towards implementation of Heat Action Plan.
- ◆ Add and update information related to Heat Wave in the existing website of OSDMA.
- ◆ Review of current IEC initiatives and accredit all IEC materials along with knowledge partners.
- ◆ Promote research on heat related morbidity, mortality and mitigation measures in collaboration with knowledge partners located in the state.
- ◆ Organize capacity building programs on Heat Wave prevention and management for different stakeholders.
- ◆ Mobilization of funds for heat action plan review, documentation and Heat Wave management.
- ◆ Review and follow-up action of the Heat Action Plan.
- ◆ Issue of GIS based information on the heat conditions and Heat Wave situation on a daily basis and dissemination through different modes.

2. India Meteorological Department (IMD)

- ◆ Issue early warning and disseminate heat alerts to all the key stakeholders

- ◆ Issue bulk emails to the key institutions/ key offices and persons.
- ◆ Media brief using TV/ Radio/ FM/ Newspapers
- ◆ Provide temperature data for determination of Heat alert and for better mitigationactivities, daily as well as annually.
- ◆ Provide 5 days forecast and warning on Heat Wave for all the districts of Odisha.
- ◆ Provide past 24 hours weather data
- ◆ Provide city forecast for 7 days consisting of Maximum & Minimum temperatures,sky condition and weather of selected cities of Odisha.

3. Agriculture & Farmers' Empowerment Department

- ◆ • 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 slowphases 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.

4. Fisheries & ARD Department

A. 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 needs 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 service.

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..3

B. 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.

5. Housing and Urban Development Department

- ◆ 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/ UrbanLocal 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 renewableenergy.
- » 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.

6. Information & Public Relations Department

- ◆ 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, YouTube 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 shared under the supervision of higher authorities at Sub-Division/District &State level.

7. Industries Department

- ◆ 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 dustparticles.
- ◆ Spreading awareness among employees/workers regarding the Heat Wave.

8. Department of Health and Family Welfare

- ◆ Capacity building of Health Care Service Providers (Doctor, Nurses, Pharmacistsand 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 foreffective 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 2022, IEC material must be circulated in print and electronic media with effect from 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 complied 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.

9. Labour & E.S.I. Department

- ◆ 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, 2022 to 15th June 2022.
- ◆ 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.

10. Panchayati Raj & D.W. Department

- ◆ All Gram Panchayats/Panchayat Samities/Zilla Parishads must be instructed to open JalaChhatras/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 PWSSs 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.P.s. 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 given 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.

11. Rural Works Department

- ◆ 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.

12. School & Mass Education Department

- ◆ 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.

13. Steel & Mines Department

- ◆ 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.

14. Commerce and Transport (Transport) Department

- ◆ 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.
- ◆ Jalachharas 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.

15. Energy Department

TPSODL

- ◆ supply will not be affected during Summer-2022 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 powersupply 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 possibletime.
- ◆ 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, low ground sagging and tree branch cutting with respectto all 33KV and 11KV feeders.

TPWODL

- ◆ Survey and maintenance of feeders, Sub-stations, Distribution Sub-station will be completed by 31st March 2022.
- ◆ 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 readyin central/divisional/sectional stores for preventive and breakdown maintenance.
- ◆ TPWODL has set up Power System Control Center (PSCC) for round the clockmonitoring, 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 are 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.

16. Forest, Environment & CC Department

- ◆ 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 in 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.

17. Department of Tourism

- ◆ 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 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.)
- ◆ Dept of Tourism & OTDC will encourage employees to exercise adequate precaution and positive habits by provisioning caps and water bottles
- ◆ 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.

18. Water Resources

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 11 a.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:

- ◆ Improving the forest coverage and green areas.
- ◆ Construction of Barrage/ check dams at Rivers / streams for in stream storage of water. Conservation of storm water.

- ◆ Rejuvenation of Reservoir, rivers & streams to improve the water retaining capacity.

19. SSEPD Department on Heat wave

- ◆ Rescheduling the time of pension disbursement i.e from morning 7.30 A.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 cap or while stepping out sideon 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.

20. ST & SC Development Department

- ◆ 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 be 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.

- ◆ 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.

21. Women and Child Development & Mission Shakti Department

- ◆ 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 them as 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 Swadhar Homes/ Ujjawala Homes and all CCIs have adequate safe drinking water which are suitable to meet the Heat Wave conditions.
- ◆ Further, on opening of AWCs throughout the State (likely to be opened shortly), the Pre-School activities in all AWCs and Mini-AWCs may be conducted from 7.30 A.M. to 9.30 A.M.. Hot cooked Meals under Supplementary Nutrition Programme(SNP) may be served at 9.00 A.M. and Home visits may be completed by 10.00 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

22. WORKS DEPARTMENT

- ◆ 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.

23. Civil Society Organizations/ Corporate Social Sectors

- ◆ To support the Govt. departments in generating awareness in community
- ◆ To support in setting up of Jal Jagana Kendras (water kiosks) on road ways and remote places
- ◆ To distribute IEC materials duly accredited by the state health department and OSDMA
- ◆ To promote healthy living during the summer
- ◆ To support the state government in establishing shelters and sheds.

24. Action plan for the Districts

Government of Odisha has taken various measures for mitigating adverse effects of Heat Waves and the water scarcity situation in the State. Instructions are issued to all Districts from Special Relief Commissioner to take different precautionary measures in this regard.

- ◆ Public awareness is the key to check Heat Wave related illness and casualties. Hence, awareness campaigns may be taken up immediately to make the people aware of the risks associated with Heat Wave, identifying the risks, “Do’s and Don’ts” to protect oneself from the said risks and what to do if someone is affected. Civil Society Organizations may be widely involved in such awareness campaigns. On receiving Heat Wave warning messages, besides other modes of communication, local media should also be utilized to keep the public on alert.
- ◆ Water scarcity is often associated with Heat Wave situations and needs special attention. The District Administration is required to take steps in advance to identify the water scarcity pockets (village/ hamlet/ ward wise) and prepare an Action Plan for ensuring supply of water for drinking and other uses through tankers to those areas. Reports of water scarcity must be responded to immediately.
- ◆ Preventive maintenance of tube wells and piped water supply systems should start immediately, if not taken up already. Necessary arrangements may be put in place for attending to the complaints about the functioning of tube wells and piped water supply systems.
- ◆ Water Resources Department will take steps to release water through canals from reservoirs depending on the requirement.
- ◆ ‘Paniya Jala Seva Kendras’ (Drinking Water Kiosks) are required to be opened by Urban Local Bodies/ Gram Panchayats at market places, bus stands and other congregation points. Water provided in such water kiosks must be of portable quality and proper sanitation maintained including use of long handle dispensers and change of water daily. Sincere and willing Civil Society Organizations may

be engaged for this task. Agencies doing such work only for self-publicity and discontinuing the same after initial days should be avoided and dealt with strongly.

- ◆ Construction/ repair of shallow vats may also be ensured for roaming livestock. F & ARD Department may take up suitable IEC measures on care for animals during summer to prevent them from Heat Wave.
- ◆ This year, Schools, Colleges and other Academic/ Technical institutions may be required to continue classes during the summer to compensate for the loss due to COVID-19 pandemic, though timing of classes and examinations may have to be rescheduled to morning hours. In case schools and educational institutions remain open, extra care has to be taken to ensure availability of drinking water in all Schools and Colleges. Wherever required, tube wells inside the school campus may be repaired to ensure uninterrupted drinking water supply. Sufficient ORS must also be kept in schools, colleges and provided to students/ staff requiring the same. Outdoor activities have to be restricted so that the students - are not exposed to Heat Wave conditions.
- ◆ All parents should be sensitized to ensure that their children carry a water bottle while going to school/ college. This should be sufficiently publicized to create awareness among the parents.
- ◆ Schools may also be advised to allocate some time during school hours to give Heat Wave precautionary tips to the students.
- ◆ S & ME/ HE/ Skill Dev. & Tech. Education Department may issue detailed instructions on the points above.
- ◆ Anganwadi Centres may remain open in morning hours only. Availability of portable water in all AWCs must be checked and ensured. Sufficient nos. of ORS packets should also be available with ASHA and AWWs.
- ◆ Sufficient life saving medicines, saline, ORS may be stored in dispensaries, PHCs, CHCs and Subdivision/ District Headquarters Hospitals to meet the requirement. Special arrangements may be made and separate wards/ beds be earmarked for treatment of heat stroke patients in different hospitals. The ESI Dispensaries maybe directed to treat the general public.
- ◆ All public transport vehicles must carry sufficient portable water and ORS packets to be provided to passengers/ staff requiring the same. During severe Heat Wave condition, timings of non-airconditioned public transport services may have to be rescheduled avoiding their plying during peak hours of Heat Wave. However, while doing so, inconvenience likely to be caused to long route passengers must be kept in mind. C & T (Transport) Department may issue detailed instructions in this regard.

- ◆ The timing for engagement of labourers / workmen at worksites may be rescheduled. No work should be executed in peak hours during Heat Wave period. The employers must make necessary arrangements for the supply of drinking water, ORS packets and provisions of rest shed at the worksite. Labour & ESI Department may issue detailed instructions in this regard.
- ◆ The Energy Department will issue instructions to the distribution companies to maintain uninterrupted power supply during summer months. In case, load shedding is absolutely necessary in some areas, the schedule must be announced for information of consumers sufficiently in advance.
- ◆ Awareness raising measures may be taken up on the concept of cool roof technology ie., white painting of roofs to reduce the indoor atmospheric temperature.
- ◆ The control rooms at the State level and the District level shall function round the clock during the period of Heat Wave. The Heat Wave warnings issued by IMD should be tracked on a regular basis and if necessary, Control Room of IMD/ State EOC may be contacted for such information.
- ◆ Members of Panchayati Raj Institutions in the district may be sensitized and impressed upon to monitor the Heat Wave mitigation measures in their areas and observance of Heat Wave safety protocols by the people.
- ◆ The Collector may depute Senior Officers to verify and ensure necessary arrangements in medical institutions, schools, colleges, anganwadi centres etc.
- ◆ All effort should be made to see that no human causality occurs due to Heat Wave. However, if any information on casualty is received or news report published in media, it should be immediately enquired into and the veracity of such reports should be promptly reported to this office.
- ◆ Where reports regarding death of a person due to sunstroke either at the work place or any other area are received, the Collector should arrange to conduct immediate joint enquiry of the case by the local Revenue Officer like Tehsildar or Additional Tehsildar (in rural areas) or any other Revenue Officer in Urban areas (authorized by concerned Sub-Collector) and the local Medical Officer (to be nominated by the CDMO/ SDMO). The joint enquiry report with countersignature of the Collector should reach this office within 48 hours of the reported death. This is to be ensured by all Collectors unfailingly. A copy of the letter No.895/SRdt.27.4.05 containing the procedure for enquiry into the reports of alleged heat stroke deaths is enclosed for ready reference.

Where, upon enquiry, the death is confirmed to have occurred due to sunstroke, immediate steps shall be taken to process the case in DAMPS for sanction and payment of ex-gratia to the bereaved family.

During Heat Wave period, a Calamity Management Group under the leadership of the Collector should review the situation as well as relief measures everyday and a daily situation report should be sent by the Collector to the office of Special Relief Commissioner.

Meeting of the District Level Committee on Natural Calamities/District Disaster Management Authority may be convened at the earliest to discuss different preparedness measures to be taken by different officials/agencies to manage the possible Heat Wave & water scarcity situation in the districts as per the advice/ direction of the committee/ authority latest by 11/03/2022.

1. 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.

Symptoms and First Aid for various Heat Disorders

Heat Disorder	Symptoms	First Aid
Heat rash	Skin redness and pain, possible swelling, blisters, fever, headaches.	Take a shower using soap to remove oils that may block pores preventing the body from cooling naturally. If blisters occur, apply dry, sterile dressings and seek medical attention.
Heat Cramps	Painful spasms usually in leg and abdominal muscles or extremities. Heavy sweating.	Move to cool or shaded place. Apply firm pressure on cramping muscles or gently massage to relieve spasm. Give sips of water. If nausea occurs, discontinue.
Heat Exhaustion	Heavy sweating, weakness, Skin cold, pale, headache and clammy extremities. Weak pulse. Normal temperature possible. Fainting, vomiting.	Get victim to lie down in a cool place.
Heat Stroke (Sun Stroke)	High body temperature. Hot, dry skin. Rapid, strong pulse. Possible unconsciousness or altered mental status. Victim will likely not sweat	Loosen clothing. Apply cool, wet cloth. Fan or move victim to air-conditioned place. Give sips of water slowly and if nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention; call 108 and 102 for ambulance. Heat stroke is a severe medical emergency. Call 108 and 102 for ambulance for emergency medical services or take the victim to a hospital immediately. Delay can be fatal. Move victim to a cooler environment. Try a cool bath or sponging to reduce body temperature. Use extreme caution. Remove clothing. Use fans and/or air conditioners. DO NOT GIVE FLUIDS ORALLY if the person is not conscious.

Hospital Preparedness Measures for Managing Heat Related Illness

Director/In-charge of Hospitals in State/Districts should ensure that the following measures are in place:

- ◆ A detailed action plan to tackle heat-related illnesses well in advance of hotter months.
- ◆ Standard Operating Procedures to tackle all levels of heat-related illnesses. Capacity building measures for doctors, nurses and other staff should be undertaken.
- ◆ Cases with suspected heat stroke should be rapidly assessed using standard Treatment Protocols.
- ◆ Identify surge capacities and mark the beds dedicated to treat heat stroke victims and enhance emergency department preparedness to handle more patients.
- ◆ Identify RRT (Rapid Response Teams) to respond to any exigency calls outside the hospitals.
- ◆ Ensure adequate arrangements of Staff, Beds, IV fluids, ORS, essential medicines and equipment to cater to management of volume depletion and electrolyte imbalance.
- ◆ May try to establish outreach clinics at various locations easily accessible to the vulnerable population to reduce the number of cases affected. Health Centers must undertake awareness campaigns for neighbourhood communities using different means of information dissemination.
- ◆ Primary centers must refer the patients to the higher facility only after ensuring adequate stabilization and basic definitive care.
- ◆ Hospitals must network well with nearby facilities and medical centers to share the patient load which exceeds their surge capacities.
- ◆ All cases of heat-related illnesses should be reported to IDSP (Integrated Disease Surveillance Programme) unit of the district.

Acclimatization

Those who come from cooler climatic conditions to warmer places face the risk of HeatWave illnesses and need to be acclimatized. Acclimatization is achieved by gradual exposure to the hot environment during a Heat Wave. . They should be advised not to move out in the open for at least one week to help the body acclimatize to the heat. They should also be advised to drink plenty of water.

1. Heat Illness Treatment Protocol

Recognizing that treatment protocols may vary slightly in different the settings (EMS, health centers, clinics, hospital emergency departments, etc.), the following should apply in general to any setting and to all patients with heat related illnesses:

1. Initial assessment and primary survey of patient (airway, breathing, circulation, disability, exposure), vital signs including temperature.
2. Consider heat illness in differential diagnosis if:
 - a. Presented with suggestive symptoms and signs
 - b. Patient has one or more of the following risk factors:
 - ◆ Extremes of age (infants, elderly)
 - ◆ Debilitation/physical reconditioning, overweight or obese
 - ◆ Lack of acclimatization to environmental heat (recent arrival, early in summer season)
 - ◆ Any significant underlying chronic disease, including psychiatric, cardiovascular, neurologic, hematologic, obesity, pulmonary, renal, and respiratory diseases
 - ◆ Taking one or more of the following:
 - ▶ Sympathomimetic drugs
 - ▶ Anticholinergic drugs
 - ▶ Barbiturates
 - ▶ Diuretics
 - ▶ Alcohol
 - ▶ Beta blockers
3. Remove from environmental heat exposure and stop physical activity
4. Initiate passive cooling procedures
 - a. Cool wet towels or ice packs to axillae, groin, and around neck; if patient is stable, may take a cool shower, but evaluate risk of such activity against gain and availability of other cooling measures
 - b. Spray cool water or blot cool water on to the skin
 - c. Use fan to blow cool air onto moist skin

5. If temperature lower than 40°C, repeat assessment every 5 minutes; if improving, attempt to orally hydrate (clear liquids, ORS can be used but not necessary; cool liquids better than cold). If temperature is 40°C or above, initiate IV rehydration and immediately transport to emergency department for stabilization.

6. Livestock preparedness During Hot Weather

Extreme heat causes significant stress to livestock. There is a need to plan well for reducing the impact of high temperatures on livestock. Keeping an eye on the weather forecasts and developing a mitigation plan for high to extreme temperature can be effective in ensuring that the livestock has sufficient shade and water on hot days.

2. Maintenance of Data on Heat Related Deaths and Illness

As per “Guidelines for preparation of Action Plan – Prevention and Management of Heat-Wave 2017” issued by National Disaster Management Authority (NDMA), New Delhi, data on age group, sex, occupation, economic status of those who died due to Heat Wave, place of death etc. are to be collected and furnished for proper analysis and under taking of mitigation measures.

As per the instructions issued by the O/o Special Relief Commissioner vide letter No.1777/R & DM (DM) Dated 03.04.2018 information as per Format-I (Annexed) may be collected and furnished to the Department along with every joint enquiry report of heat stroke death. Besides, a permanent register with detailed information as per Format-II (Annexed) is to be maintained both in the Tehsil Office and District Office and weekly report in the said format must be submitted to the Department every Monday by 1.00 PM.

Further, data on heat related illness is needed to carry out meaningful analysis of heat related health events and to undertake appropriate measures. Information of all cases of heat related illness and deaths as per Format-A (Annexed) needs to be collected by the Directorate of Health Services and submitted to the Department daily.

3. Health Impacts of Heat Waves

The health impact of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/ or heat stroke. The signs and symptoms are as follows:

- ◆ Heat Cramps: Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- ◆ Heat Exhaustion: Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.

Heat Wave DOs and DON'Ts

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

- ◆ To minimise 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.

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 you

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.

Way Forward

Heat Wave is a phenomenon culminating from multiple factors comprising both man-made and natural causes. It is being observed that the problem of intense and long heat spells is growing consistently over the last two decades almost assuming the proportion of a disaster. Creating such evidence base can strengthen the heat action plan to achieve its stipulated goals and objectives efficiently and effectively. In the coming days it is proposed that strengthening of the heat action plan will be carried out in the following phases

- Determining threshold temperature for multiple cities and towns of Nuapada.
- Conducting vulnerability assessment in more cities and designing an intervention.

IEC material as Follows.....

ସାବଧାନ !

ଅଂଶୁମାତ୍ରକୁ ସାବଧାନ

ପାଖରେ ଥୁବ ପାଣି ବୋତଳ
ହାତରେ ଥୁବ ଛଡା
ପାଦରେ ଥୁବ ଚପଳ ଯଦି
ଖରାକୁ ନାହିଁ ଚିତା



- ଜିନ ୧୫ ଟାରୁ ଗାନ୍ଧୀ ଜିତରେ ଖରାର ତାତି ସବୁଠାରୁ ଅଧିକ ଆସ । ଏଣୁ ଟାରୁ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ଅଧିକ ପାଣି, ଓ.ଆର.ଏସ., ଘଣା, ତୋରାଣି, ଘୋଲଦକ୍ଷି, ଆଖୁରସ ବିଅକୁ ଓ କାହାତି, ଚରତୁଳ ଆଦି ଆଆକୁ ।
- ଖରାରେ କଟିନ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ହାଲିଆ ଲାଗିଲେ ଛାଇ ଯାଗାରେ ବିଶ୍ରାମ କରନ୍ତୁ ।
- ମୁଖ ଓ ଦେହରେ ଡେବା ଗାମୁଛା ପକାନ୍ତୁ ।
- ନିଶାମାର ଟାରୁ ଖରାକୁ ବାହାରିଲେ ଜୀବନ ପ୍ରତି ବିପଦ ଆସ ।
- ଅଂଶୁମାତ ରୋଗୀ ଦେହରେ ବରପ ଘରକୁ ନାହିଁ ।

ସରକାରୀ ଢାକ୍ତରଖାନାରେ ଅଂଶୁମାତ ରୋଗୀଙ୍କ ଚିକିତ୍ସା ପାଇଁ ସୁବିଧା କରାଯାଇଛି ।

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

କ'ଣ କରିବା ଅନୁଚ୍ଛେତ !

ଅଂଶୁମାତ ପ୍ରତି ସର୍କର୍ ରୁହନ୍ତୁ

ଅଂଶୁମାତ ପ୍ରତି ସର୍କର୍ ରୁହନ୍ତୁ



- ଜିନ ୧୫ ଟାରୁ ଗାନ୍ଧୀ ଜିତରେ ଖରାର ତାତି ସବୁଠାରୁ ଅଧିକ ଆସ । ଏଣୁ ଟାରୁ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ଆବଶ୍ୟକ ସ୍କୁଲ୍ ବାସାରକୁ ଯିବାକୁ ହେଲେ ମୁଖକୁ ଓଡ଼ା ଗାମୁଛାରେ ଘୋଟୁଣ୍ଡା ଏବଂ ଛାତା, ଯୋତା ଓ କଳା ବିଷମତା ବ୍ୟବହାର କରନ୍ତୁ ଓ ବାହୀରେ ଖରାର ନିଅନ୍ତୁ ।
- ଖରାରକୁ ଯିବା ପାଇଁ ଓ ପହଞ୍ଚିକ ପରେର ସ୍ଵରେତ୍ର, ମାର୍ଟିଆ ଓ ସୁମ ଆଦିରେ ଥିବା ପାଣି, ଲେନ୍ଦୁ ସରକତ, ଘୋଲଦକ୍ଷି, ଲୁଣ ନିଶା ତୋରାଣି ବିଅକୁ ।
- ଖରାରରେ ବାସ୍ତ୍ଵ କଳାକଳ ପାଇଁ ସୁତା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।
- ହାଲିଆ ଲାଗିଲେ ଛାଇ ଯାଗୀ ଓ ପବଳଦଳାଳକ ସ୍ଵରେତ୍ର ବିଶ୍ରାମ ନିଅନ୍ତୁ ।
- ଘରେ ବିଶ ଓ ଆଜକେଷେସ ଛାତ ଥିଲେ ତା' ରପରେ ନଢା ବିଥାନ୍ତୁ ।
- ଦେହରେ ଅଧିକ ଔଳକୋହିଲେ, ପାତି ଥିଲା ଥିଲା ଲାଗିଲେ - ପ୍ରତ୍ୱବ ପାଣି, ଓ.ଆର.ଏସ., ଓ ଘଣା ବିଅକୁ ।

ରୋଗୀଙ୍କ ଅନୁଚ୍ଛେତ !

✗ ଟାରୁ ଖରାରେ ଖରାର ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।

✗ ବୁଦ୍ଧ, ଅସ୍ତ୍ରୀ ଲୋକ, ଶିଶୁ, ଗର୍ଭବତୀ ମହିଳା ଏବଂ ଉଚ୍ଚଚାପ ଓ ମଧ୍ୟମେହରେ ପାଇତି ଦ୍ୟତି ଟାରୁ ଖରାରେ ବାହାରକୁ ଯାଦାନ୍ତୁ ନାହିଁ ।

✗ ଅଂଶୁମାତ ରୋଗୀ ଦେହରେ ବରପ ଘରକୁ ନାହିଁ ।

✗ କେହି ଅସ୍ତ୍ରୀ ଅନୁଭବ କଲେ ତାକର ଚିକିତ୍ସା ପ୍ରତି ଅବହେଲା କରନ୍ତୁ ନାହିଁ ।

✗ ନିଶା ଦ୍ୱାରା ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଓ.ଆର.ଏସ. ପ୍ରୟାକେର, ସମ୍ମାନ "ଆଶା" ଅଳନ୍ତୁତି ଲେହୁ, ସ୍ଵାସ୍ଥ୍ୟ ଉପକରଣ, ସ୍ଵାସ୍ଥ୍ୟକେନ୍ଦ୍ର ଓ ସରକାରୀ ଢାକ୍ତରଖାନା ପ୍ରତିକରେ ପାଗଣ୍ଯାଙ୍କ ମିଳେ । ସରକାରୀ ଢାକ୍ତରଖାନା ମାନକରେ ଅଂଶୁମାତ ରୋଗୀଙ୍କ ପାଇଁ ଚିକିତ୍ସା ସୁବିଧା କରାଯାଇଛି ।

ରାଜ୍ୟ ସ୍ଵାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ପ୍ରତିଷ୍ଠାନ, ଓଡ଼ିଶା

ଅସ୍ତ୍ରୁଗାତ !

ପାବଧାନତା ହିଁ ସୁରକ୍ଷା

ବାହାରକୁ ଯିବା ପୂର୍ବରୁ ଯଥେଷ୍ଟ ଖାଦ୍ୟ ଖାଆନ୍ତୁ ଓ ପ୍ରତ୍ୱର ପାଣି ଦିଅଛୁ ।
ଓଦା ଗାମୁଛା ଓ ପାଣି ବୋଲନ ସାଥରେ ନିଅଛୁ ।

ପଶାଳ, ତରଭୁଜ, ଓ କାନ୍ଦୁଡ଼ି ଇତ୍ୟାଦି ଖାଆନ୍ତୁ ।
ତୋକାଣି, କାଞ୍ଚିପାଣି, ବେଳପଣା, ସରବତ,
ଘୋଲ ଦିହି ଏବଂ ଓ.ଆର.୬୪ ଘୋଲ ଦିଅଛୁ ।

ଛତା, କୋତା, ଗୋପି, ପଗଡ଼ି, କଳା ଚଷମା,
ସୁତା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।

ମାଦକ ଦ୍ରୁବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଅସ୍ତ୍ରୀ ଅନୁଭବ କଲେ ଢାକ୍ରରକ ପରାମର୍ଶ ଦିଅଛୁ ।

- ଚାପାଟା ସାଧରଣତଃ ଧାୟ୍ୟ/୪୪ ପେଟ୍ରୋଫ୍ଲୋର ଅଧି ରେଙ୍ଗ ହାତ ପ୍ରାୟ ପ୍ରତିକ ଦୂହାରୀ ।
- ରହିବାରେ ପାଦମରକୁ ଆପଣି ଅଧିକ ରେଖାରେ ଦିଲ୍ଲି ଦିଲ୍ଲିଟାରେ ମଧ୍ୟ ପ୍ରାୟ ପ୍ରତିକ କରି ପରିଚିତ ଝିଲ୍ଲି ହେଲାଏ ।
- ବାହାରରେ କାନ୍ଦୁଡ଼ି ଅତି ସ୍ଵର୍ଗ ଏବଂ ଶାକାହାରରେ ବର ବାଜାରରେ ଦିଲ୍ଲି ପାଇଁ ପାଇଁ ଦିଲ୍ଲି ଅଧିକ ଦ୍ରୁବ୍ୟ ପାଇଁ ଦିଲ୍ଲି ହେଲାଏ ।

ଆଜା ସମୟରେ ଜନସାଧାରଣ ସରକତା ଅବଳମ୍ବନ କରିବାରା ଉଚିତ ।

ଅନୁସ୍ଵାସ !

ପାଦଧାରତା ହିଁ ସୁରକ୍ଷା

ବାହାରକୁ ଯିବା ପୂର୍ବରୁ ଯଥେଷ୍ଟ ଖାଦ୍ୟ ଖାଆନ୍ତୁ ଓ ପରିହର ପାଣି ଯିଅଛୁ ।
ଓଡ଼ିଆ ଗାସୁଜା ଓ ପାଣି ବୋଲନ ସାଥରେ ନିଅଛୁ ।

ପଶ୍ଚାଳ, ତରଭୁଜ, ଓ କାନ୍ତକ୍ଷିଣୀ ଜତ୍ୟାଦି ଖାଆନ୍ତୁ ।
ତୋରାଣୀ, କାଞ୍ଜିପାଣୀ, ବେଳପଣା, ସରବତ,
ଘୋଲ ଦିନେ ଏବଂ ଓ.ଆର.ସ୍ୱ ଘୋଲ ଯିଅଛୁ ।

ଛତା, କୋତା, ଗୋପି, ପଗଡ଼ି, କଳା ଚଷମା,
ସତା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।

ମାଦକ ଦ୍ରୁବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଅସ୍ଵାସ ଅନୁଭବ କଲେ ଡାକ୍ତରଙ୍କ ପରାମର୍ଶ ନିଅଛୁ ।

► ତାପମାତ୍ରା ସାରଗତରେ ଧ୍ୟା”/୪୪ ପେରିଫ୍ରେଡ୍ରୁ ଅଧିକ ହେଲେ ଏହାରୁ ପ୍ରାତି ପ୍ରାତି ଦୂହାରୀବା ।
► ଉପରେରେ ପାଦଧାରରେ ଆହୁତି ଅନୁଭବ ହେଲାମୁଁ ଏହାରୁ ଦେବ ତମାତ୍ରକ ମଧ୍ୟ ପ୍ରାତି ପ୍ରାତି ଦୂହାରୀବା ।
► ସରଜରେ ତୋରାଣୀ ଅନ୍ତରେ ଏବଂ ଶାକଗତରେ କମ ବାଧାମାତ୍ରକ ଏଥିରେ ପାଣୀ ପାଣୀ ଅନୁଭବ ଦୂହାରୀବା ।

ଭାରା ସମୟରେ ଜନ୍ୟାଧାରର ସତ୍ତବରେ ଅବଳମ୍ବନ କରିବା ଉଚିତ ।

ଆଂଶୁଧାତ !

ସାବଧାନତା ହିଁ ସୁରକ୍ଷା



ବସନ୍ତକୁ ଯିବା ପୂର୍ବରୁ ଯଥେଷ୍ଟ ଗାବ୍ୟ ଖାଦ୍ୟକୁ ଓ ପ୍ରଦତ୍ତ ପାଣି ଯିଅଛୁ । ତୋଳାନୀ, ବାଜିଯାରୀ, ବେଳପଣୀ, ସରଦତ, ଘୋକ ଦଢ଼ି ଏବଂ ଓ.ଆର.ୱେ ଘୋକ ଯିଅଛୁ ।



ତାପମାତ୍ରା ସାଧାରଣରେ $40^{\circ}/44^{\circ}$ ସେବ୍ରିଗ୍ରେହିକୁ ଅଧିକ ହେଲେ ଏହାକୁ ପ୍ରୀସ୍ ପ୍ରବାହ କୁହାଯାଏ ।

ତୋଳାନୀ, ବାଜିଯାରୀ, ବେଳପଣୀ, ସରଦତ, ଘୋକ ଦଢ଼ି ଏବଂ ଓ.ଆର.ୱେ ଘୋକ ଯିଅଛୁ ।



କିନ୍ତୁ ଜପକୁଳକୁ ଆଜିଲେ ବସନ୍ତମାହର ଅନ୍ତରୀ ଅଧିକ ଉତ୍ସିତିବାରୁ ଏହାଠାରୁ କମ୍ ତାପମାତ୍ରାରେ ମଧ୍ୟ ପ୍ରୀସ୍ ପ୍ରବାହ ଜଳ ପରିବୃତ୍ତ ସ୍ଫର୍ତ୍ତ ହୋଇଥାଏ ।

ଚିତ୍ର, କୋଟା, ଗୋପି, ପରତ୍ତି, କରାତ ଚଞ୍ଚଳା, ପୁତ୍ରା ଜ୍ଵଳା ବ୍ୟବହାର କରନ୍ତୁ



ସହବରେ କୋଠାବାଢ଼ି ଅଧିକ ଥିବାରୁ ଏବଂ ଜିଗାଙ୍କଳର କଳ କାରଖାଲାରୁ ନିର୍ଭର ରାତ୍ରି ଯୋଗ୍ବ୍ୟାପ୍ ତାପମାତ୍ରା ଅଧ୍ୟେତିକ ଦର୍ଶି ପାଇଥାଏ । ଏଥୁ ଜନ୍ୟଧାରଣା ଖାଦ୍ୟ ସମୟରେ ସରକ୍କରୀ ଅବଳମ୍ବନ କରିବା ପଡ଼ିବ ।

ଅନ୍ତରୀ ଅନୁଭବ ବଳେ ଢାରଣର ପରାମର୍ଶ ଦିଅଛୁ

ମାଦକ ଦ୍ରୁଷ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ



ଓଡ଼ିଶା ଗାବ୍ୟ ବିପର୍ଯ୍ୟ ପରିଚାଳନା କର୍ତ୍ତୃପକ୍ଷ ରାଜାବ ଉଦ୍‌ଦେଶ୍ୟ

ସମ୍ପଦ ।



ଓଡ଼ିଶା ଗାବ୍ୟ ବିପର୍ଯ୍ୟ ପରାମନ କର୍ତ୍ତୃପକ୍ଷ
ରାଜାବ ଉଦ୍‌ଦେଶ୍ୟ

ଆଂଶୁଧାତ ପ୍ରତି ସାବଧାନ !



ଓଡ଼ିଶା ଗାବ୍ୟ ବିପର୍ଯ୍ୟ ପରିଚାଳନା କର୍ତ୍ତୃପକ୍ଷ
ରାଜାବ ଉଦ୍‌ଦେଶ୍ୟ

ସତେଜତା ଓ ସର୍ବକାଳୀନ ସୁରକ୍ଷା !



- ↗ ଶାରୀରକରେ ପଦାକୁ ବାହୀରକ୍ତୁ ନାହିଁ ।
- ↗ କଠିନ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ↗ ଜରୁରାକାମରେ ବାହୀରକୁ ଯିବାକୁ ହେଲେ ମୁଣ୍ଡରେ ଓଦା ଗାମୁଛା, ଛତା, ଚପଳ, କଳା ଚକ୍ଷମା ବ୍ୟବହାର କରନ୍ତୁ ।
- ↗ ବାହୀରକୁ ଯିବା ସମୟରେ ପାଣି ବୋଲେ ସାଙ୍ଗରେ ନିଅଛୁ ।
- ↗ ଜଳ ଶୁଷ୍କତାରୁ ରକ୍ଷା ପାଇବା ପାଇଁ ଅଧିକ ପାଣି, ଓ.ଆର.ୱେ ଦ୍ରବଣ, ପଣା, ତୋଳାନୀ, ଘୋକ ଦଢ଼ି ଓ ଆଖୁରସ ଯିଅଛୁ । କାକୁଡ଼ି, ଚରଭୁଜ ଆହି ଖାଦ୍ୟକୁ ।
- ↗ ମାଦକ ଦ୍ରୁଷ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।
- ↗ ହାଲକା ଓ ଭିଲା ତ୍ରୈସ୍ ପରିଧାନ କରନ୍ତୁ ।
- ↗ ଆଂଶୁଧାତରେ ଆକ୍ରମିତ ବ୍ୟକ୍ତିକୁ ଯଥାଶୀଘ୍ର ଚାକରଖାନା ନେଇ ବିକିତ୍ତା କରାନ୍ତୁ ।



- ▶ ଜାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ଲାଗ୍ଛି ।
 - ▶ କର୍ତ୍ତନ ପରିଶ୍ରମ କରକୁ ଲାଗ୍ଛି ।
 - ▶ କାନ୍ଧରୀ ଜାମରେ ବାହାରକୁ ଯିବାକୁ ହେଲେ
ମୁଁ ପରେ ଓଦା ଗାମ୍ବୋ, ଲତା, ପପଳ ଏବଂ ଜଳା
ଚଞ୍ଚମା ବ୍ୟକ୍ତବାର କରନ୍ତି ।
 - ▶ ବାହାରକୁ ଯିବା ସମୟରେ ପାରି ବୋଲାଳ
ଘାରକୁ ପିଅନ୍ତୁ ।
 - ▶ ଜଳ ଶୁଷ୍କତାକୁ କରିବା ପାଇବା ପାର୍କ ଅଧିକ ପାରି,
ଓ.ଆ.ର. ଏବଂ ତୃକଣ, ପଣ୍ଡ, ଚୋରାଣୀ, ଘୋଲଦିନ୍ଦି
ଓ ଆସୁଥିବ ପିଅନ୍ତୁ । ଲାକୁଣ୍ଡି, ବରବୁଜ ଆଦି
ଆୟାକୁ ।
 - ▶ ମାଦକ ଉଦ୍‌ବ୍ୟ ଯେବନ କରକୁ ଲାଗ୍ଛି ।
 - ▶ ହାଲୁଜା ଏବଂ ବିଲା ପାଖାଜ ପରିଧାନ କରକୁ ।
 - ▶ ଅଶ୍ଵପାତରେ ଆହୁର ବ୍ୟକ୍ତିଙ୍କୁ ଯଥାଶାପ
ଚାକରଖାନା ନେଇ ଚିକିତ୍ସା କରାନ୍ତି ।
 - ▶ ସୁହାଳାତ ପ୍ରସରିତ ମାନ୍ଦକୁ ଜାରରେ ରଖନ୍ତି ଏବଂ
ପ୍ରତ୍ୱର ପରିମାଣରେ ପାରି ପିଇବାକୁ ପିଅନ୍ତୁ ।



ଗ୍ରେଟ ପ୍ରବାହ (Heat Wave)

ଗ୍ରୀଷ୍ମ ପ୍ରବାହ କ'ଣ ?

ଯଦି କୋଣର ଲାନ୍କର ପାପମାତ୍ରା ୪୦° ସେବଳିଏଥ ପାଖାପାହୁ ଥାଏ ଏବଂ ଏହା ସେବି ଲାନ୍କର ସାଧାରଣ ପାପମାତ୍ରା ଠାର୍ ୫°-୬° ସେବଳିଏଥିବ ତୁବି ହୋଇଥାଏ, ତାଙ୍କୁ ଗ୍ରାସ୍ ପ୍ରକାଶ ଓ ୩° ସେବଳିଏଥିବ ଅଧିକ ତୁବି ହୋଇଥିଲେ, ପ୍ରବଳ ଗ୍ରାସ୍ପ୍ରବାହ କୁହାଯାଏ ।

ଯଦି କୋଣାର୍କ ପାତମାତ୍ରା ୪୦° ସେବଳିଯିବାରୁ ଜର୍ଜ ଥାୟ ଏବଂ
ଏହା ବାଧାରଣ ପାତମାତ୍ରା ୩୦ ରୁ ୪-୫୦ ସେବଳିଯିବା ଦୂର ପାଠ୍ୟାବ୍ୟ ତେବେ
ପାତାକୁ ଗ୍ରାସ ପ୍ରବାହ ଓ ୨୦ ସେବଳିଯିବାରୁ ଜର୍ଜ ଦୂରିକୁ ପ୍ରବଳ ଗ୍ରାସପ୍ରବାହ କୁଣ୍ଡଳୀରେ ।

ଯଦି କୌଣସି ଶ୍ଵାନର ତାପମାତ୍ରା ୪୫° ସେଲ୍‌ସିଯୁସ ବା ତତ୍ତ୍ଵିକ୍ଷେ ହୁଏ, ତେବେ ତାପମାତ୍ରା ବାଧାରଣ ତାପମାତ୍ରା ଯାହା ହେଲେବି ଏହାକୁ ଗ୍ରାମ୍‌ପ୍ରଦାନ କହାଯାଏ ।

ବେଳେବେଳ ଅତ୍ୟଧିକ ଗ୍ରାସପ୍ରଦାନ ହେତୁ ମରିଥ ମୁଖ୍ୟମୁଖ୍ୟରେ ପଢିଆୟ ।
୧୯୫୯ ମରିଥା ଏପ୍ରିଲାଙ୍କୁ କୁଳ ମାସ ମଧ୍ୟରେ ଗ୍ରାସପ୍ରଦାନ ହେତୁ ଡିଶାରେ ୨୦୪୯
ଜଣକର ମୁଖ୍ୟ ଘଟିଥିଲା । ଏହାକୁ ଆଶ୍ରମାତା ଜନିତ ମୁଖ୍ୟ ଦେବୀ କୁହାଯାଏ ।

ସୁରକ୍ଷା ଉପାୟ -

ଶ୍ରୀଷ୍ଟ ପ୍ରାହ୍ଲାଦ ଓ ଅଂଶୁମାତର ପ୍ରଭାବ କମ୍ଳ କରିବା ପାଇଁ ନିମ୍ନଲିଖିତ ସୁରକ୍ଷା ବ୍ୟବସ୍ଥା ଗ୍ରହଣ କରିବା ଉଚିତ ।



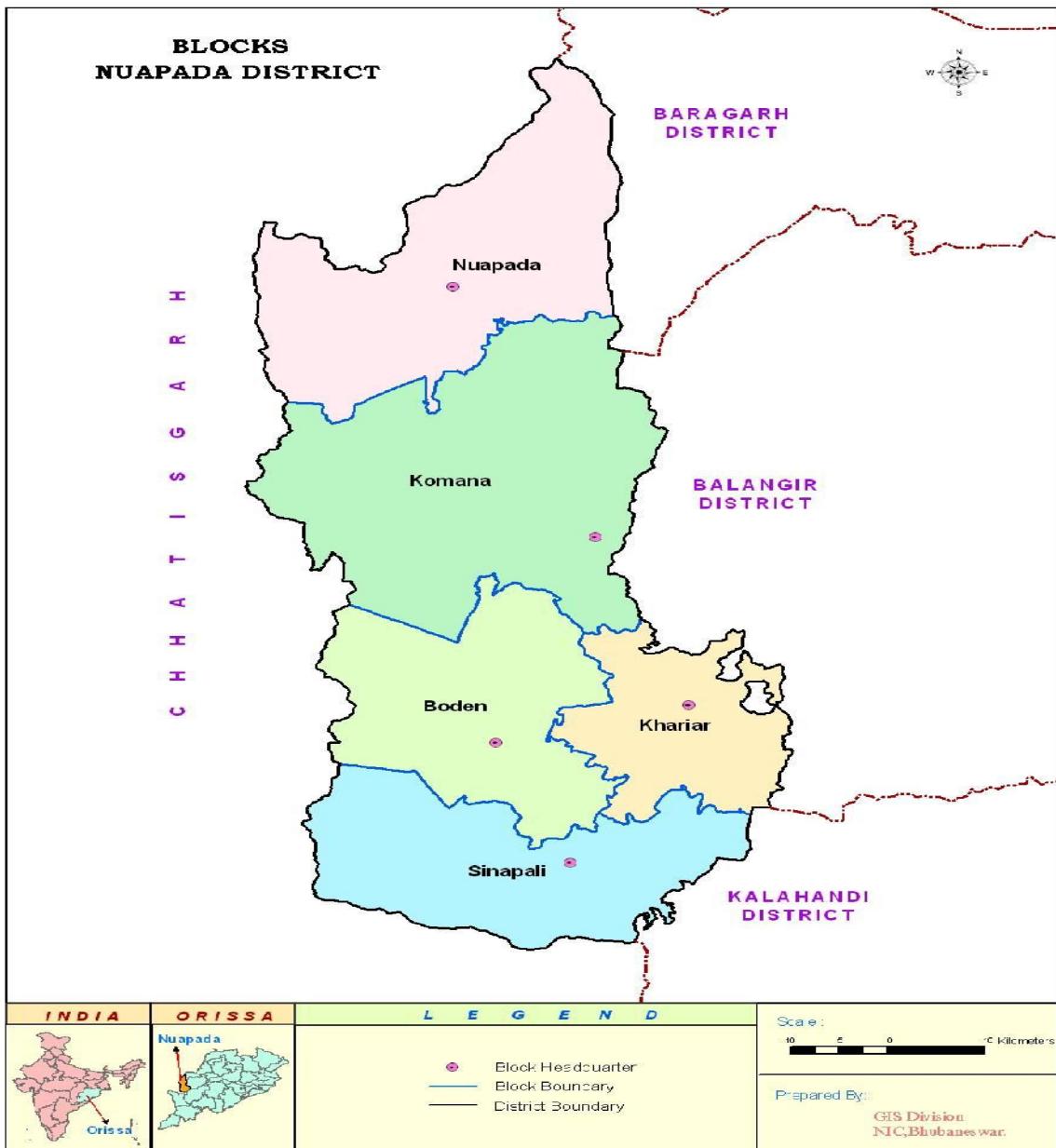
SATARK Web & Mobile App

The image shows the SATARK mobile application interface. At the top, there's a navigation bar with icons for Home, Heatwave, Flood, Health Wave, Smoke Alert, and Weather Forecast. Below this is a large green button labeled 'Open'. The main screen displays a weather forecast for Bhubaneswar, Khordha, showing a maximum temperature of 27.1°C and a status of 'Normal'. It also includes a 'Next 10 Days Forecast' section with a timeline from 01-01-2019 to 10-01-2019. To the right, there are four cards for different locations: Bhubaneswar (Max Temp 27.1°C, Status Normal), Mohana (Max Temp 28.7°C, Status Normal), Sorada (Max Temp 29.1°C, Status Normal), and Nandahandi (Max Temp 30.4°C, Status Normal). Each card has a 'View Details' button at the bottom.

Annexure -I Department Action plan received at this end in Table .

HEALTH DEPARTMENT ACTION PLAN TO MITIGATE THE HEAT WAVES CONDITION DURING THE SUMMER FOR THE YEAR -2023

OF NUAPADA DISTRICT



Climate Change over the years has resulted in increase in average temperature and has increased possibilities of severe heat wave event. In the recent past, heat wave during the summer season had a great impact in our district. Looking at the current scenario, effective response is important for saving peoples life and health, besides evolving plans for risk mitigation and management of heat related illness (HRI). The heat wave changes may cause heat stress disorders like; Heat Stroke, Heat Exhaustion, Heat Cramp etc.

Criteria to declare a heat wave:

Heat wave is considered if maximum temperature of station reaches at least 40°C or more for planes, 37°C or more for coastal stations and at least 30°C or more for hilly regions. Nuapada is a plane region and the temperature at least 40°C or more may be declared as heat wave.

Case definition of heat related illness (HRI):

Heat rash: 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.

Heat cramps: painful spasms of large and frequently used muscle groups.

Heat Exhaustion: feeling overheated, light headedness, exhausted and weak, unsteady and feeling of vomiting, sweaty and thirsty, inability to continue daily activity.

Heat Syncope: Feeling hot and weak, light headedness followed by Brief Loss of consciousness

Heat stroke: severe over heating with profound water loss from body.

Geo topography of Nuapada

Nuapada District, is a district of Odisha, India. Nuapada is the district capital. Its border shares with Kalahandi, Balangir, Bargarh and Chhattisgarh. Geographical area of Nuapada district is 3852 Sq. Km. and population is 6,10,382.

Necessity of preparedness to tackle Heat wave situations

Major followed occupation is harvesting, hunter-gatherers or herders and laborers engaged in various works. They work at field without taking protective measures in sunny days. So, preventive measures and management plan is highly required.

In this context, following arrangements have been made by the district health department.

1. FUNCTIONALIZATION OF CONTROL ROOM -

A control Room (Landline No: 06678-225614) has been made functional at Office of the CDM& PHO, Nuapada from 05th March 2022 round the clock. Similarly, control room will function at Block level at each CHC with contact number which will be communicated to District office as well as to the peripheral health institutions as well as to other line department for immediate communication at all levels.

2. DISTRICT RAPID RESPONSE TEAM -

A Rapid Response Team will be in position for taking necessary action and ready for immediate movement.

All vehicles of the health institutes including ambulances will be kept ready with ice pack and cold water to meet the emergency.

3. FUNCTIONING OF A ROOM FOR MANAGEMENT OF HEAT STRESS DISORDER AT DHH/ CHC/PHC-

At DHH, Nuapada a room with 06 numbers of beds will be identified as “HEAT STRESS DISORDER MANAGEMENT ROOM” and kept ready with all logistics like bed, air cooler, A/C, fan and Oxygen cylinder. Drugs like; IV fluids and other lifesaving drugswill be in position. Similar arrangement will be done at CHC level as well as PHC level. Thelayout marking for Heat Stress room and important contact numbers will be displayed at the strategic sites.

4. AVAILABILITY OF DRUGS AND CONSUMABLES -

Sufficient quantity of ORS Packets,IV Fluidsand other necessary medicines will be in position at all health institutions. The stock should be available with HW (F) & (M), ASHA and AWW as per the suitability and sufficient ahead. As per the stock position whenever required, the indent will be placed with OSMCL immediately.

Laboratory tests such as RBS, CBC, Serum Electrolytes, LFT, RFT, ECG to be carriedout for differential diagnosis of hyperthermia and CNS dysfunction.

Heat related illness in pediatric age group and geriatric age group and mentally challenged population to be closely monitored at field level.

5. SENSITIZATION TO MEDICAL AND PARAMEDICAL STAFFS -

All Medical officers & Para Medical Staffs will be sensitized on prevention andmanagement of effects of heat stress on health in different setting throughout the period.The grass root level workers like HW, AWW & ASHA including PRI members will also be sensitized through block level field health staffs.ASHA/ ANM/ MPHW to be sensitized to outreach in hard-to-reach areas to optimize the coverage of inspection of heat alerts.They must be sensitized on DO's and Don'ts.

6. PROVISION FOR SUPPLY OF COLD WATER AT HEALTH INSTITUTIONS -

Special arrangement will be done at all health institution for supply of cold water for the patients and their attendants at strategic points like; OPD/ IPD/ Patients waiting area. ORS corner will be opened at each health institutions.

Provision for supply of cold water is to be done at each sub centre by the ANM.“Jalachhatra” will be opened at village level through GKS.

7. READINESS OF VEHICLE OF THE HEALTH INSTITUTION -

All the vehicles of the health institutions including ambulances will be kept readyto meet the emergency.

8. INVOLVEMENT OF MHU & MHT-

The services of the MHU & MHT will be utilized as and when required for thispurpose. Hence, they will be specially sensitized by the block MO I/C.

9. IEC ACTIVITIES-

All the peripheral health staffs will be involved in propagating the message for prevention and management of Heat stress among the public through Inter Personnel Communication (IPC)/ Group meeting. The ADPHCO and PHEOs will look after this activity at district and block level respectively.

- The health workers/MHT will sensitize students and teachers at school.
- An intensive IEC campaign on Do's & Don'ts as regards exposure to heat wave, fluid intake, clothing, work environment during the heat wave period.
- Distribution of leaflet on Do's & Don'ts for prevention and management Heat Stress.
- The field Health Workers will conduct GKS meeting and sensitize the PRI members and the community.

10. INTER DEPARTMENTAL CO-ORDINATION-

Different departments like; Revenue, RWSS, W & CD, H & UD, Education, Labor, Transport, PRI are to be involved to tackle the situation. As such they may be assigned with following responsibility;

- Repair and fictionalization of tube well.
- Opening of "JALACHHATRA" through block/ ICDS by AWW, "MOBILE TANK WATER" in water scares area.
- Not to engage laborers at work site during the pick period of the day.
- Bus owners may be directed to avoid overcrowding, provision of drinking water in the bus and bus stop.
- Change of school timing till summer vacation.

11. MONITORING& SUPERVISION WITH REPORT RETURNS -

- The district will monitor the health situation daily with report returns to State Control Room and Emergency section, Collectorate, Nuapada over Telephone or E-mail.
- All Medical Officers will report to district control room over telephone/ E-mail on daily basis about any heat wave related incident or death, in prescribed format supplied to them daily by 4.30 PM. A nil report will also be submitted if there is NIL case in their area.
- In case of death, it will be reported immediately telephonically to the CDM& PHO/DPHO. Reports regarding death of a person due to heat stress either at work place or any other area should be jointly inquired by local Revenue Officer and Local Medical Officer of PHC/CHC/DHH . The report should be sent to Collector & DM and State Health Control Room.

Dist.Control Room on Heat Stress Disorder in the O/o CDMO Nuapada (06678-225614)

8 A.M to 2 P.M

Chandrabhan Chandrakar, MPH (M)
MPHW (M) Mob-94399989530

2P.M to 8P.M

Arjun Bariha MPH (M)/T. Bhadrachari
Mob-9439999022 9439998987

1-Control Room Details:-

Name of The institution	6 A.M to 2 P.M	2 P.M to 10 P.M	10 P.M to 6 A.M
DHH NUAPADA	Bhagyashree Sabar 6370140295	Pinki Sabar 9178670744	Hemakanti Majhi 6371712963
CHC KHARIAR ROAD			
CHC Kh. Road	KamalakantChandrak ar 9556115636	Prabir Kumar Patra 9439989542	Staff Nurse On Duty 06678-221296
PHC(N) Beltukri	Ashish Chandrakar 9556944321	H.L Chandrakar 9770823128	Pinki Banjara 9777386249
PHC(N) Dharambandha	Ramesh Mahanand 9439989700	Dr. R. K Sahu 9938508675	Dulita Majhi 7077050987
PHC(N) Biromal	Dr. Binita Jagat 9178784276	Dr. K.K Sahoo 9439989711	Martha Dungdung 9439989696
PHC(N) Darlimunda	SasmitaSahu 7077456096	SanghamitraSamal 9439989715	BalabhadraBariha 9938402570
CHC KOMNA			
CHC Komna	Nibedita Mallick 9938226461	Jolly Sing Deo 7077919941	Smrutirekha Pradhan 8658532062
CHC Bhella	Gitanjali Kanhr 9178229427	Nilamadhav Seth 7873825907	Puspanjali Das 9467159678
PHC(N) Tarbord	BabitaPanigrahi 9556489577	Prasanna Barik 9668423527	Sunita Sabar 9556265920
PHC(N) Buddhi komna	Ashamanjari Patra 7077072374	Narendra Kumar Panda 9937713654	Lochan Herna 9668102996
PHC(N) Sunabeda	Akira Parida 6372566966	Gopal Bag 7656918878	ChhabitaBehura 9438531772
PHC(N) Darlipada	Raj Kumari Bag 9937082872	Pramod Ku Pradhan 9938410868	DebendraSoni 8144758239
CHC KHARIAR			
SDH Khariar 6371732640	Sarita Kacchia G. Kameswar Rao	Rasmita Jal Sarat Bemal	Puja Duria Bimbadhar Meher
PHC(N) Duajhar 9437933617	Naresh Barik	Durjyodhan Majhi	Mili Kara
PHC(N) Lanji 9437269094	Abanikanta Mahapatra	Santosini Baitharu	Sajendra Rana
PHC(N) Tukla 8249698436	Samir Panigrahi	Khyamasagar Budhia	Ramachandra Sahu
CHC SINAPALI			
CHC Sinapali	Swarnalata Majhi 9556889199 K C Dungdung 9937929309	Manasi Singh 7873169835 Sili Kar 8018186470	NilimaPriyadarshini Jena 7077337487 Jayanti Samratah 9178524254
PHC(N) Timanpur	Janardan Dalei 9713143721	Santilata Jena 9439989575	Ashish Supkar 9777519056
PHC(N) Hatibandha	Namita Purohit 9937636738	Swarnalata Jagat 9439989571	RangadharNial 9439999015
PHC(N) Liad	Kabita Chhatria 7077059336	Manmathnath Singh 9556062330	Manmathnath Singh 9556062330
CHC BODEN			
CHC Boden	Upendra Biswal 9178225869	Gajanand Meher	Nursing Officer on Duty
PHC(N) Karangamal	Pramila Nayak 9439999047	Pradeep Kumar Panda 9938541852	Hitesh Khamari
PHC(N) Damjhar	Madhuri Mahanand 9668128235	KabirajSabar 9668206093	Rupe Majhi
PHC(N) Bhainsadani	Bidesini Biswal	Mukesh Dharua 8280654181	Thabiram Majhi 8280445066

2- Drugs Stock Position:-

Name of The institution	ORS	IV Fluids	Paracetamol	Antibiotic(Cipro, Nor.Oflox)
Dist Central Store, NPD	502120	60191	1568189	193700
DHH NUAPADA	2724	4200	40000	35000
CHC Khariar Road	4800	1570	15000	31000
PHC(N) Beltukri	2300	350	3000	3100
PHC(N) Dharambandha	1800	480	2100	1900
PHC(N) Biromal	2600	420	2500	3200
PHC(N) Darlimunda	1800	380	3000	2100
CHC Komna	6000	9500	10000	15500
CHC Bhella	2500	300	5000	2500
PHC(N) Tarbord	150	250	2500	350
PHC(N) Buddhi komna	250	150	3000	3000
PHC(N) Sunabeda	400	200	500	600
PHC(N) Darlipada	500	300	2000	2000
CHC Khariar	70,000	60,000	40,0000	17,000
PHC(N) Lanji	2100	300	5000	2000
PHC(N) Duajhar	2210	310	5100	2000
PHC(N) Tukla	2160	300	8000	3000
CHC Sinapali	20000	350	10030	1200
PHC(N) Hatibandha	700	260	150	860
PHC(N) Liad	900	300	3000	1500
PHC(N) Timanpur	80	106	200	400
CHC Boden	7200	425	40000	6800
PHC(N) Karangamal	2300	50	1580	1270
PHC(N) Damjhar	720	185	2100	1740
PHC(N) Bhainsadani	2200	118	2400	1750

3- Beds earmarked for Heat strokes Patients:-

Name of The institution	No of bed Strength	A.C/ Cooler Facilities in Heat Stroke Room	Drinking Water Facility
DHH NUAPADA	6	A.C&Cooler Available	Available
CHC Kh. Road	2	A.C Available	Available
PHC(N) Beltukri	1	Cooler Available	Available
PHC(N) Dharambandha	1	Cooler Available	Available
PHC(N) Biromal	1	Cooler Available	Available
PHC(N) Darlimunda	1	Cooler Available	Available
CHC Komna	1	A.C&Cooler Available	Available
CHC Bhella	1	A.C&Cooler Available	Available
PHC(N) Tarbord	1	A.C&Cooler Available	Available
PHC(N) Buddhi komna	1	A.C&Cooler Available	Available
PHC(N) Sunabeda	1	Cooler Available	Available
PHC(N) Darlipada	1	Cooler Available	Available
CHC Khariar	4	A.C Available	Available
PHC(N) Duajhar	1	Cooler Available	Available
PHC(N) Lanji	1	Cooler Available	Available
PHC(N) Tukla	1	Cooler Available	Available
CHC Sinapali	2	A.C&Cooler Available	Available
PHC(N) Timanpur	1	Cooler Available	Available
PHC(N) Hatibandha	1	Cooler Available	Available
PHC(N) Liad	1	Cooler Available	Available
CHC Boden	2	A.C&Cooler Available	Available
PHC(N) Karangamal	1	Cooler Available	Available
PHC(N) Damjhar	1	Cooler Available	Available
PHC(N) Bhainsadani	1	Cooler Available	Available

4- List of ILR & Deep Freezer in working condition:-

Name of The institution	ILR	Deep Freezer	Remarks
DHH NUAPADA	1	1	Working
CHC Kh. Road	1	1	Working
PHC(N) Beltukri	1	1	Working
PHC(N) Dharambandha	1	1	Working
PHC(N) Biromal	1	1	Working
PHC(N) Darlimunda	1	1	Working
CHC Komna	1	1	Working
CHC Bhella	1	1	Working
PHC(N) Tarbord	1	1	Working
PHC(N) Buddhi komna	1	1	Working
PHC(N) Sunabeda	1	1	Working
PHC(N) Darlipada	1	1	Working
CHC Khariar	1	1	Working
PHC(N) Duajhar	1	1	Working
PHC(N) Lanji	0	0	Not Available
PHC(N) Tukla	1	1	Working
CHC Sinapali	1	2	Working
PHC(N) Timanpur	0	0	Not Available
PHC(N) Hatibandha	1	1	Working
PHC(N) Liad	0	0	Not Available
Kendumunda SC	1	1	Working
CHC Boden	1	1	Working
PHC(N) Karangamal	1	1	Working
PHC(N) Damjhar	1	1	Working
PHC(N) Bhainsadani	0	0	Not Available

5-No of Ambulance & other Road Worthy vehicle:-

Name of The institution	No. of Ambulance	108 Ambulance
Annexure-II		
DHH NUAPADA	1	2
CHC Kh. Road	1	1
PHC(N) Beltukri	0	1
PHC(N) Dharambandha	0	1
PHC(N) Biromal	0	0
PHC(N) Darlimunda	0	1
CHC Komna	1	1 (102 Ambulance-1)
CHC Bhella	1	0
PHC(N) Tarbord	1	1
PHC(N) Buddhi komna	1	0
PHC(N) Sunabeda	1	0
PHC(N) Darlipada	1	0
CHC Khariar	1	2
PHC(N) Duajhar	0	0
PHC(N) Lanji	0	0
PHC(N) Tukla	0	0
CHC Sinapali	2	1
PHC(N) Timanpur	0	1
PHC(N) Hatibandha	0	0
PHC(N) Liad	0	0
CHC Boden	1	1
PHC(N) Karangamal	0	1

CONTACT DETAILS OF OFFICIALS @ NUAPADA DISTRICT

Sl. No	Designation	First Name	Office Phone	Mobile No.	Email-ID
1	Collector, Nuapada	Sri Hemanta Ku. Sai, IAS	6678225463	8895985872	<u>dm_nuapada@nic.in</u>
2	SP.,Nuapada	Sri Raghavendra Gundala	9873469523	9873169523	<u>spnpr.orpol@nic.in</u>
3	ADM, Nuapada	Sri Agasty Pradhan	6678225352	8260151858	<u>dm_nuapada@nic.in</u>
4	Sub-Collector, Nuapada	Sri Subash chandra Raita	9692806976	9692806976	<u>subcollectornpd@gmail.com</u>
5	District Emergency Officer	Sri Kailash Chandra Das	9937130302	9937130302	<u>emergencynuapada@rediffmail.com</u>
6	DFO(T), Khariar	Sri Sushil Ku. Tripathy	9437074637	9437074637	<u>dfokhariar@gmail.com</u>
7	PD, DRDA, Nuapada	Sri.Nabin Kumar Patel	8249381835	9437405581	<u>ori_dnuapada@nic.in</u>
8	DFO, (KL), Khariar	Sri Prabhanjan Pradhan	9437350301	9437350301	<u>dfokhariar@gmail.com</u>
9	DFO, (WL), Nuapada	Sri BBK Biswasi	9437966372	9437966372	<u>sunabedawildlife@rediffmail.com</u>
10	PD, DRDA, Nuapada	Smt Madhuchanda Sahu	7684014064	7684014064	<u>ori-dnuapada@nic.in</u>
11	APD,RH, Nuapada	Sri Bidesh Ghosh	9937748377	9937748377	<u>ori_dnuapada@nic.in</u>
12	APD,Credit, Nuapada	Sri Nihar Sahu	9078331233	9078331233	<u>ori_dnuapada@nic.in</u>
13	APD, Finanace, Nuapada	Sri Amrit Pradhan	9776470355	9776470355	<u>ori_dnuapada@nic.in</u>
14	APD, (Tech.), Nuapada	Sri Sukanta Rout	9437383565	9437383565	<u>ori_dnuapada@nic.in</u>
15	CDMO, Nuapada	Dr.Sobharani Mishra	9439989988	9439989988	<u>cdmocummdnudnuapada@gmail.com</u>

16	Chit District Agriculture Officer, Nuapada	Sri Antardami mandal	9437074098	9437074098	ddanua.dag@nic.in
17	Deputy Project Director ATMA,NPD	Sri.Sudhansu Shekhar Sahu	9439264695	9439264695	agricozsudhansu@gmail.com
18	Executive Engineer,RD ,Nuapada	Sri Siba Jyoti Sahu	9437255332	9437255332	rd_nuapada@rediffmail.com
19	Executive Engineer,Irrigation, Nuapada	Sri Harischandra Patel	7064316303	7064316303	ee.npd.irr@gmail.com
20	Executive Engineer,R & B, Khariar	Sri Kishore Panda	9437136900	9437136900	eeroads.khr@rediffmail.com
21	Executive Engineer,RWSS, Nuapada	Sri Bibhu Panda	8280408058	8280408058	eerwss_nua@nic.in
22	Executive Engineer,WESCO, Nuapada	Sri Sambit Nanda	6678232259	9437125497	eenednuapada@gmail.com
23	Asst. Fire Officer,Nuapada	Sri Suresh Barik	9778317507	9778317507	sureshkumarbarik@gmail.com
24	Asst. Fire Officer,Komna	Sri P Patra	7682957422	7682957422	sureshkumar barik@gmail.com
25	Asst. Fire Officer.Khariar Road	Sri Ajit Goud	9439259905	9439259905	sureshkumar barik@gmail.com
26	Asst. Fire Officer.Sinapali (Station Officer)	Manas Ranjan Pradhan	7538957536	7538957536	sureshkumar barik@gmail.com
27	CDVO, Nuapada	Dr. Sachidananda Panda	9437178698	9437178698	cdvonuapada@gmail.com
28	Deputy Collector, Revenue	Anand Kumar Das	9437736377	9437736377	dm_nuapada@nic.in
29	Asst. Collector,Nizarat	Sri Kailash Chandra Das	9937130302	9937130302	dm_nuapada@nic.in
30	District Education Officer,Nuapada	Smt Phulamani Murmu	8280252826	8280252826	deonuapada25@gmail.com
31	DPC,RTE, Sarva Sikshya abhiyan	Smt Phulamani Murmu	8280252826	8280252826	dpcnuapadassa.opepa@nic.in

32	Asst. Director, Horticulture	Sri Hasda	7735157569	7735157569	adh.npd@gmail.com
33	DSSO Small, Nuapada	Sri Bibekananda Mahananda	9937557723	9937557723	<u>dssonuapada@gmail.com</u>
34	DSO,Nuapada	Sri Ajay Pattnaik	9437217611	9437217611	
35	DIPRO, Nuapada	Sri Ajay Pattnaik	9437217611	9437217611	<u>dipronpd26@gmail.com</u>

Operational Control Room at DEOC & Other Deptment.