



District Heat Wave Action Plan (HAP)-2023-24, Jajpur

Do's

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

Don'ts

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

People at risk ▶

Prepared by:

District Disaster Management Authority (DDMA),
Jajpur

Copyright @DDMA, Jajpur, 2023
District Heat Wave Action Plan (HAP), 2023
Published in April, 2023

Documentation & Designed:

District Disaster Management Authority (DDMA), Jajpur

Tel: 06728-222648, E-mail: emergency4321@gmail.com

Contents:

Sl. No	Chapter	Page No
1	Introduction	9-17
2	Climate & Location	18-19
3	District Profile	20-22
4	Early Warning Dissemination	23-26
5	Institutional Mechanism	27-31
6	District Action Plan (Preparedness, Mitigation, Response & Relief measures)	32-43
7	Water Scarcity Management	44-47
8	Hospital Preparedness & Management of Clinical Treatment.	48-78
9	IEC & BCC activities on management of Heat Wave	79-82
10	Contact details	83-87

**Shri Chakravarti Singh Rathore, IAS,
Collector-Cum-Chairperson,
District Disaster Management Authority
(DDMA), Jajpur**



PREFACE

It gives me immense pleasure that the District Disaster Management Authority (DDMA), Jajpur, has taken pro-activeness to prepare the District Heat Wave Action Plan-2023-24. The Heat Wave is a State Specific Disaster in Odisha and it is also an Extreme Weather event. Heat Wave is a condition of atmospheric temperature that leads to physiological stress, which sometimes can claim human life.

The *District Heat Wave Action Plan-2023-24* has been prepared as there is continuous increase of heat in the month of March to June over the past several years. The Heat wave took a toll of 174 people in last 22 years in Jajpur and in last four years total confirmed death was 3nos in Jajpur district. Now, it is more challenging to address the issues and spread more awareness to mitigate reduction of morbidities and manage the Heat Wave & Water Crisis in the district. There should be focus on Community Based Disaster Preparedness (CBDP) and Disaster Risk Reduction (DRR).

The Heat Block Wave Action Plan has been prepared by taking all the concerned line departments 'planned action points to be taken at appropriate time in dealing with the Heat Wave during the month of April to June to minimize the adverse impacts and it will help to achieve the Zero Mortality & to reduce morbidities (Human Sufferings) and water scarcity management in the district. The DDMA, Jajpur, also believes in every life is precious and to extend prompt Response measures in golden hours. All concerned District, Line Deptt. Officers will work promptly and extend necessary supports in effective management of Heat Wave and Water Scarcity in the district. The Senior Officers, like ADM (Rev), ADM (Gen), ADM, Kalinganagar, CDO-Cum-EO, ZP, Jajpur and Sub-Collector, Jajpur, are assigned with Blocks/ULB to monitor and effective management of Heat Wave & Water Scarcity.

I also like to put on record my appreciation for the timely support of Dr. Dibya Lochan Mohanta, OAS(S), Addl. District Magistrate-Cum-CEO, DDMA, Jajpur, Sri Umesh Chandra Lenka, ORS, Asst. Collector Emergency, Collectorate, Jajpur, in preparation of the above plan. I also appreciate the continuous and outstanding work of Mr. Nimain Charan Das, DPO, OSDMA, Collectorate, Jajpur, and put on record for shouldering responsibility in preparing the District Heat Wave Action Plan -2023-24.

Lastly, I hope that this plan will immensely help to all deptt. Officers at District, Sub-Division, Block level as well as to all stakeholders for effective management of Heat Wave in the district.

Sd/-

**Collector-Cum-Chairperson, DDMA,
Jajpur**

**Dr. Dibya Lochan Mohanta, OAS(S)
Additional District Magistrate-Cum-CEO,
District Disaster Management Authority, Jajpur**



ACKNOWLEDGEMENT

The District Disaster Management Authority (DDMA), Jajpur has prepared this District Heat Wave Action Plan-2023-24 in a comprehensive manner by involving all concerned District/Line Deptt. Officers and stakeholders with an objective to mitigate the Heat Wave related disasters in Jajpur District. This Heat Wave Action Plan is prepared in consonance with the National Guidelines of NDMA, Government of India and State Heat Wave Action Plan-2020 & Disaster Management Act, 2005. This present plan is improvised by considering the instance in increase of heat waves and its impact on social economic lives of people of the district. The DDMA, Jajpur has conducted a meeting on “Heat Wave Management” on 13.03.2023 as per the guidance of the SDMA/SRC Office, Odisha, Bhubaneswar for effective planning & management of Heat Wave & Water crisis in the district.

The Action Plan suggested a number of Mitigation Plans, Preparedness and Response activities to tackle the menace of the heat wave in the district. Institutional readiness and Community level awareness has been accepted as the key to tackle heat wave.

The DDMA, Jajpur takes this opportunity to sincerely acknowledge all the concerned Officers of District/Sub-division/Block level for their valuable inputs in preparing the Heat Wave Action Plan - 2023-24. I sincerely extend my gratitude to Shri Chakravarti Singh Rathore, IAS, Collector-Cum-Chairperson, DDMA, Jajpur for his active involvement and guidance and valuable suggestions in preparing this plan in a much broader way. I also appreciate and acknowledge the works of *Sri Umesh Chandra Lenka, ORS, Asst. Collector, Emergency* and *Sri Nimain Charan Das, DPO, OSDMA, Collectorate, Jajpur* for shouldering the responsibility in preparing the District Heat Wave Action Plan -2023-24.

Sd/-

**Addl. District Magistrate-Cum-CEO,
DDMA, Jajpur**

Abbreviation

DDMA	:	District Disaster Management Authority
DEOC	:	District Emergency Operation Centre
ADM	:	Additional District Magistrate
AWC	:	Anganwadi Centre
BDO	:	Block Development officer
BCR	:	Block Control Room
CCA	:	Climate Change Adaptation
CDM&PHO	:	Chief District Medical & Public Health Officer
CDPO	:	Child Development Project Officer
CMRF	:	Chief Ministers Relief Fund
DDM	:	District Disaster Manager
DEOC	:	District Emergency Operation Centre
SEOC	:	State Emergency Operation Centre
ZP	:	Zilla Parishad
DSWO	:	District Social Welfare Officer
DRR	:	Disaster Risk Reduction
GoI	:	Government of India
GP	:	Gram Panchayat
HRVA	:	Hazard Risk and Vulnerability Assessment
MO	:	Medical Officer
NGO	:	Non-Government Organization
OSDMA	:	Odisha State Disaster Management Authority
OIC	:	Officer Incharge
PDS	:	Public Distribution System
PHC	:	Primary Health Centre
PWD	:	Public Works Department
RD	:	Route Distance
SP	:	Superintendent of Police
VSO	:	Veterinary Stock officer
W&CD	:	Women & Child Development

UNDP	:	United Nations Development Programme
NIDM	:	National Institute of Disaster Management
CDKN	:	Climate & Development Knowledge Network
RTO	:	Regional Transport Officer
MVI	:	Motor Vehicle Inspector
CSO	:	Civil Supply Officer
ACSO	:	Assistant Civil Supply Officer
SI	:	Supply Inspector
MI	:	Marketing Inspector
DSWO	:	District Social Welfare Officer
SDWO	:	Sub-divisional Welfare Officer
DAO	:	District Agriculture Officer
AAO	:	Assistant Agriculture Officer
VAW	:	Village Agriculture Worker
ADMO	:	Additional District Medical Officer
Block MOI/C	:	Block Medical Officer In-charge.
ASHA	:	Accredited Social Health Activist
DEO	:	District Education Officer
BEO	:	Block Education Officer
CDVO	:	Chief District Veterinary Officer
ADVO	:	Additional District Veterinary Officer
LI	:	Livestock Inspector
DLO	:	District Labour Officer
LI	:	Labour Inspector
VDMC	:	Village Disaster Management Committee.
VDMP	:	Village Disaster Management Plan.
WKS	:	Ward KalyanSamiti
MAS	:	Mahila Arogya Samiti
GKS	:	Gaon Kalyan Samiti
SFDRR	:	Sendai Framework for Disaster Risk Reduction
CBDP	:	Community Based Disaster Preparedness

Chapter- 1

Introduction:

The Heat Wave is a State Specific Disaster in Odisha and it is an Extreme Weather event. Heat Waves typically occur between March and June, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people & animals. The water scarcity during summer season aggravates the impact & incidence of the Heat Wave.

What is Heat Wave?

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. In India, as per India Meteorological Department (IMD) classification, heat wave is considered if maximum temperature of a station reaches at least 40°C or more for plains, 37°C or more for coastal stations and at least 30°C or more for hilly regions.

Following criteria are used to declare a heat wave:

a) Based on Departure from Normal,

✚ **Heat Wave:** Departure from normal is 4.5°C to 6.4°C

✚ **Severe Heat Wave:** Departure from normal is >6.4°C

b) Based on Actual Maximum Temperature (for plains only)

✚ **Heat Wave:** When actual maximum temperature $\geq 45^{\circ}\text{C}$

✚ **Severe Heat Wave:** When actual maximum temperature $\geq 47^{\circ}\text{C}$

Objectives:

The Heat Wave Action Plan aims to provide a framework for implementation, coordination and evaluation of extreme heat response activities in block/ GPs that will reduce the negative impact of extreme heat. The plan also aims to address risk of heat related illness in place where extreme heat conditions exist and to take appropriate precautions and effective Water Crisis Management in the block. The Block Heat Wave Action Plan will help in effective convergence, coordination among different Govt. offices at District & Block and GP level, PRI members, as well as other stakeholders

for effective & systematic management of Heat Wave & Water Scarcity in the block with an objective of Zero Mortality & to reduce morbidities (Human Sufferings).

Rationale for Preparation of HAP (Heat Action Plan)

Odisha is generally known for natural calamities like-Cyclone, thunder storm, heat waves, flood, drought etc. Increased heat waves have become more common with the increasing rate of global temperatures. Extreme heat can lead to dangerous, even deadly, health consequences, including heat stress and heatstroke. India is also vulnerable to such impacts of climate change and the heat wave casualties over the past decades have increased. There have been 25,716 deaths recorded from 1992 to 2016 in various parts of the country due to extreme heat wave. There could have been many possible reasons, which are going to be exacerbated in coming years with growing urbanization, population and industrialization. The problem is further going to be magnified with ongoing climate change. According to estimates, the scenario is likely to become aggravated in coming years, and the World Meteorological Organization (WMO) predicts heat related fatalities will double in less than 20 years. There are number of evidences suggesting that heat-related risks might be reduced through systematic development of Heat wave early warning systems, alerting decision-makers and the general public to impending dangerous hot weather. It is important that public-health measures and advice on how to avoid negative health outcomes associated with hot-weather extremes are elaborated in advance. Odisha having a semi-arid climate records high day time temperature which are being more aggravated every year by the rising global temperatures. Jajpur district of Odisha recorded the day high time temperature as touches to 41 to 49 degrees in summer with high humidity that became more exacerbate for human health. This is India's first Climate Resilience Heat Action Plan for rural settings and block level heat action plan. On the ground climate preparedness actions, like heat action plan, are crucial components to the global fight against climate change and are particularly focused on protecting the communities that are most vulnerable to the short and long term effects of climate change. It is hoped that the HAP will act as a catalyst for bringing together key players from line department and policy-makers, as well as the general public, for initiating action concerning the overall management of heat as a hazard. Growing concerns over climate change have brought to the fore three important aspects: adaptation, disaster risk reduction and the need for climate information and services to support these. The HAP brings together these three facets and exemplifies an effective demonstration of disaster

risk reduction in practice. We expect this plan to enable various Govt. Offices of Jajpur district to provide effective strategy prevention and management of climate sensitive diseases and heat related illnesses. The Plan creates immediate and longer-term actions to increase preparedness, information-sharing, and response coordination to reduce the health impacts of extreme heat on vulnerable populations.

Key Strategies: Severe and extended heat waves can also cause disruption to general, social and economic services. The Government agencies, Block, will have a critical role to play in preparing and responding to heat waves at the local level, working closely with health and related departments as follows.

- ✚ Establish early Warning System and Communication System.
- ✚ Developing inter- agency response plan and coordination in field
- ✚ Preparedness at the local level for health eventualities
- ✚ The capacity building of Health care system & PRIs
- ✚ Public awareness and community outreach
- ✚ Collaboration with private, non-government and Civil Society Organisation
- ✚ Assessing the impact- feedback for reviewing and updating the plan

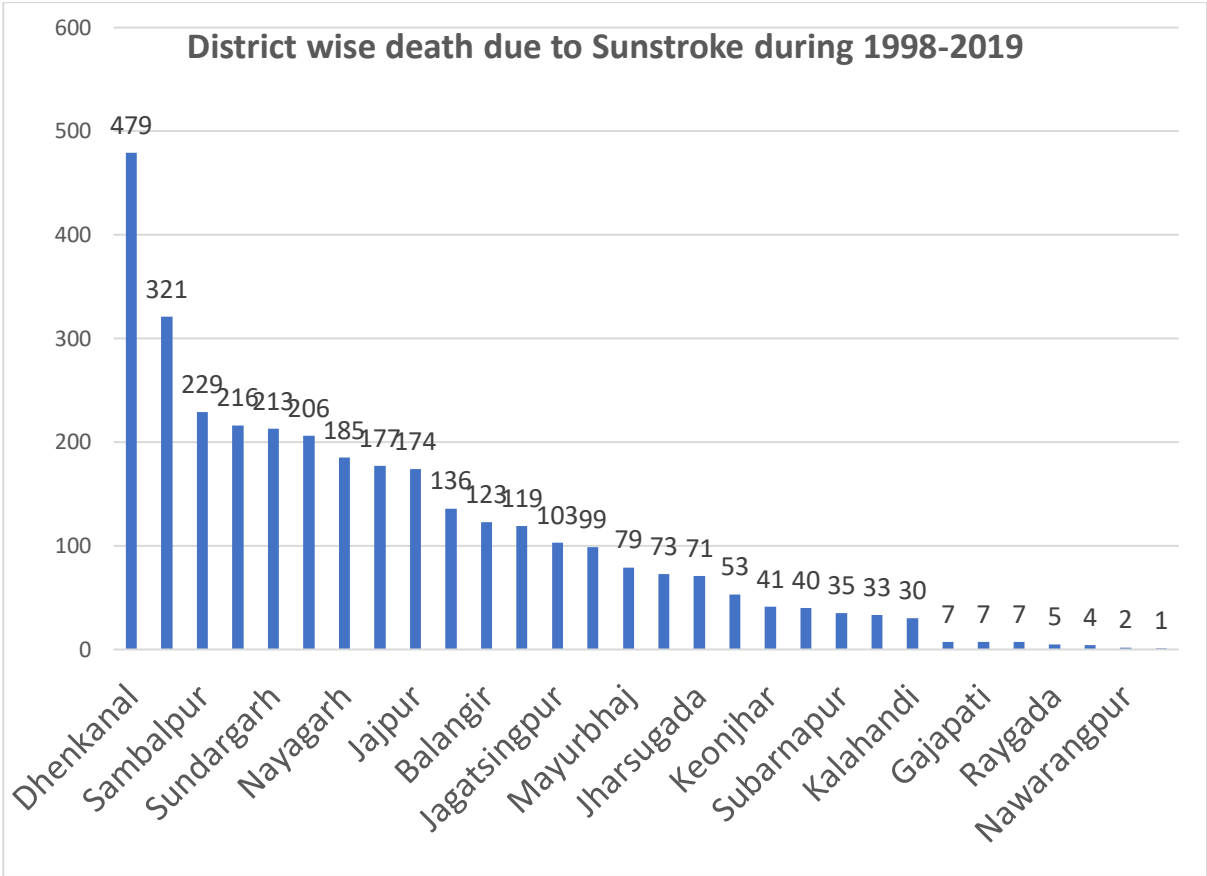
Heat Wave Situation in Odisha, District and Block: In the year 1998, the State of Odisha faced an unprecedented Heat Wave situation, as a result of which 2042 persons lost their lives. Though extensive awareness campaigns have largely reduced the number of casualties during post 1998 period, total 174 nos. of death occurred due to Heat Wave in Jajpur district in last 22 years. Heat wave has become a menace during hard summer and prolonged causing insurmountable human suffering. The poor people, farmers, elderly people, pregnant women, and workers, etc are the most vulnerable groups. The year wise deaths due to Heat Wave in last 4 years in different blocks are as follows,

Sl. No	Name of Block/Tahasil	Year wise death				Total
		2019-20	2020-21	2021-22	2022-23	
1	Darpan	1	0	0	0	1
2	Rasulpur	1	0	0	0	1
3	Bari	1	0	0	0	1
	Total	3	0	0	0	3

So far as death toll statistics of Odisha, maximum no. of death occurred in following district during 1998-2019,

Sl. No	District	No. of death due to Heat Wave
1	Jajpur	479
2	Cuttack	321
3	Sambalpur	229
4	Khordha	216
5	Sundargarh	213
6	Balasore	206
7	Nayagarh	185
8	Ganjam	177
9	Jajpur	174

In last 21 years (1998-2019), total 2790 death occurred due to Sunstroke in Odisha and out of which 174 nos. of deaths only happened in Jajpur, District and accounts 6% of total death in Odisha. The District wise death due to Sunstroke is graphically presented as follows,



Vulnerable Groups:

- Women in vulnerable condition
- Children
- Infants
- Elderly People
- Pregnant women
- Working individuals
- Economically weaker sections
- Physically challenged individuals
- Patients with co-morbidities

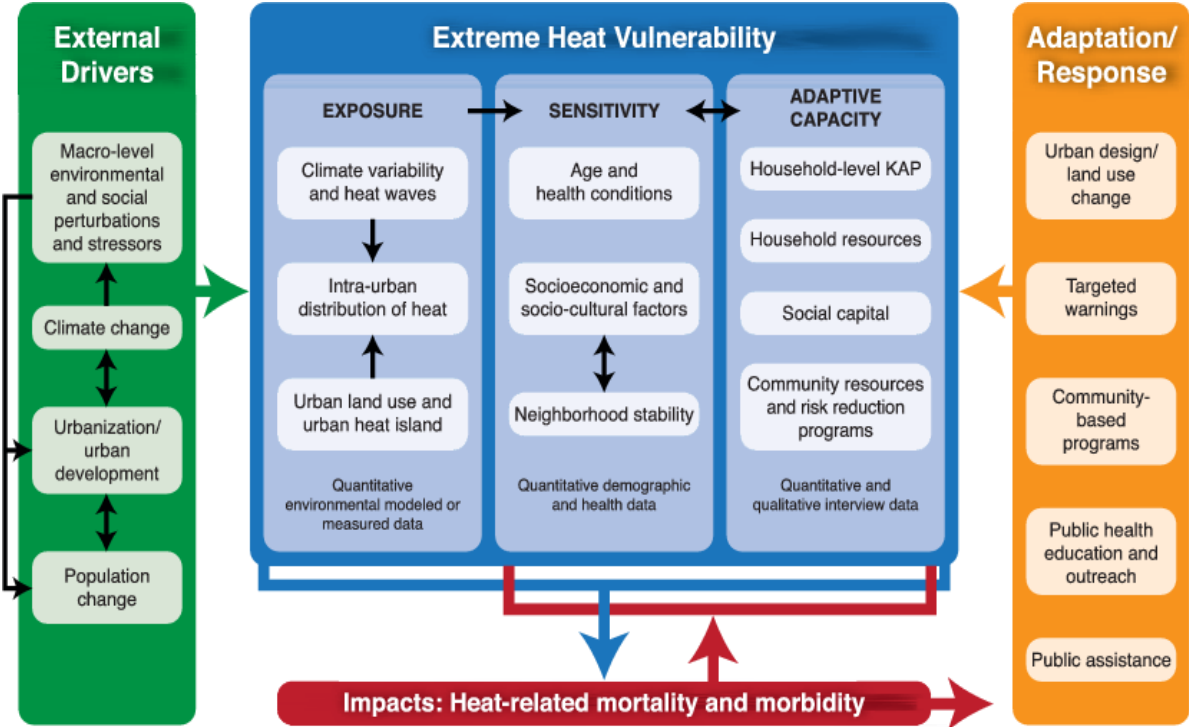
Factors associated with increased vulnerability:

- Extreme age: older & younger individuals
- Poverty
- Lack of technology/adaptability
- Low level of fitness
- Physical or mental impairment
- Social isolation
- Chronic conditions
- Use of specific medications
- Extended direct exposure to ambient heat/cold

Factors reducing the risk of thermal extremes in a changing climate

- ✚ Anticipated increase in standard of living
- ✚ Early warning & response systems
- ✚ Urban green spaces
- ✚ Infrastructure better designed for higher temperatures
- ✚ Cooling in public facilities
- ✚ Social care networks

Extreme heat vulnerability analysis framework:



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.
- ✚ *Heat related illness is avoidable.* It 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. Knowledge of effective prevention and first-aid treatment, besides an awareness of potential side-effects of prescription drugs during hot weather, is crucial for physicians and pharmacists to best mitigate the effects of heat illnesses.

Heat Disorders:

- ✚ Heat Edema/Rash
- ✚ Heat Cramps
- ✚ Heat Syncope
- ✚ Heat Exhaustion
- ✚ Heat Stroke (Sun Stroke)

Heat Disorders: Symptoms and First Aid:

Sl. No	Heat Disorder	Symptoms	First Aid
1	Heat Edema/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
2	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
3	Heat Syncope	Light Headedness, Dizziness, Fainting	Put the patient in a cool place and elevate the legs, If regained consciousness: rest and adequate rehydration. If remained unconscious: treat as shock.
4	Heat Exhaustion	Heavy sweating, weakness, Skin cold, pale, headache and clammy extremities. Weak	Get victim to lie down in a cool place. 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

		pulse. Normal temperature possible. Fainting, vomiting.	immediate medical attention; call 108 and 102 for ambulance.
5	Heat Stroke	High body temperature. Hot, dry skin. Rapid, strong pulse. Possible unconsciousness or altered mental status. Victim will likely not sweat	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.

Chapter -2

A. Climate and Location:

The Jajpur District located in between 20 degree 30' to 21 degree 10' North Latitude and 85 degree 40' to 86 degree 44' East Longitude. The District covering an area of 2887.69 sq km is moderately populated having total population of 18, 27,192 as per 2011 census.

As per the administration is concerned the Jajpur District has got one sub division namely Jajpur. There are 10 Tahsils, 10 Blocks, 311 G.Ps, 1781 Villages and 18 Police stations functioning in the District.

The climate of Jajpur District is normal as per Indian standards. All the seasons arrive in the District at their usual time. The District's average height from the sea level is 331 mts and its average rain fall is 1014.5 mm. The average maximum and minimum temperatures are 38 degree C and 12 degree C respectively. Overall, the climate of the District is neither hotter nor cooler.

B. District at a Glance

Sl. No	Particulars	No.	Remarks
1	No. of villages	1781	
2	Total Population(2011 Census)	18,27,192	
	a. Male	9,26,034	
	b. Female	9,01,158	
	c. Children (0-6)	2,16,804	
3	No. of Blocks	10	
4	No. of Gram panchayat	311	
5	No. of Tehsil	10	
6	No. of RI circle	112	
7	No. of Police Stations	19	
8	No. of Fire Stations	12	
9	No. of Urban Local Bodies	2	
10	No. of Sub-centres	261	
11	No. of PHC	61	
12	No. of CHC	12	
13	No. of Sub-Divisional Hospital	0	
14	No. of Veterinary hospitals	19	Hospital-1 Dispensaries-18
15	No. of Anganwadi Centres	2826	

16	No. of ASHA	1935	
17	No. of Colleges	104	Higher Secondary School
18	No. of Schools	1765	420 High School
19	No. of Odisha Adarsh Vidyalaya	10	
20	No. of Rural Water Supply system	461	
21	a) No. of Tube Wells	18347	
22	b) No. of tube well Functional/running	18341	
22	c) No. of tube well dysfunctional	6	
23	d) No. of tube well dysfunctional but repairable	0	
24	e) No. of tube well having solar power	445	
25	f) No. of Mega Water Supply	10	
26	No. of Temporary Shelters	345	
27	No. of Night Shelters	9	

Occurrence of Heat Wave

The Heat Wave over Jajpur generally occurs during the summer season which commences in March and stretches until June/July. The maximum temperature during this period goes well above 40C. Heat Wave pattern differs from region to region.

Chapter-3

District Profile:

BRIEF HISTORY OF THE DISTRICT

Jajpur District was formed by 'Jajati Keshari', the Somavanshi King in early 10th Century. The District takes its name from its head quarter town, Jajpur. The history of the Jajpur District from time immemorial is synonymous with the Biraja and BirajaKhetra. The Jajpur District came into being on 1st April 1993. Prior to that it was part of Cuttack District which divided into four Districts. The District is bounded by Keonjhar and Bhadrak Districts on its North, Cuttack on its South, Dhenkanal District on its East and Kendrapada District on its West.

The Jajpur District located in between 20 degree 30' to 21 degree 10' North Latitude and 85 degree 40' to 86 degree 44' East Longitude. The District covering an area of 2887.69 sq km is moderately populated having total population of 18,26,275 as per 2011 census.

As per the administration is concerned the Jajpur District has got one sub division namely Jajpur. There are 10 Tahsils, 10 Blocks, 311 G.Ps, 1781 Villages and 18 Police stations functioning in the District.

The climate of Jajpur District is normal as per Indian standards. All the seasons arrive in the District at their usual time. The District's average height from the sea level is 331 mts and the normal Rainfall of the district is 1559.9 mm. Overall, the climate of the district is neither hot nor cool. The average maximum and minimum temperatures are 38 degree C and 12 degree C respectively. Overall, the climate of the District is neither hotter nor cooler.

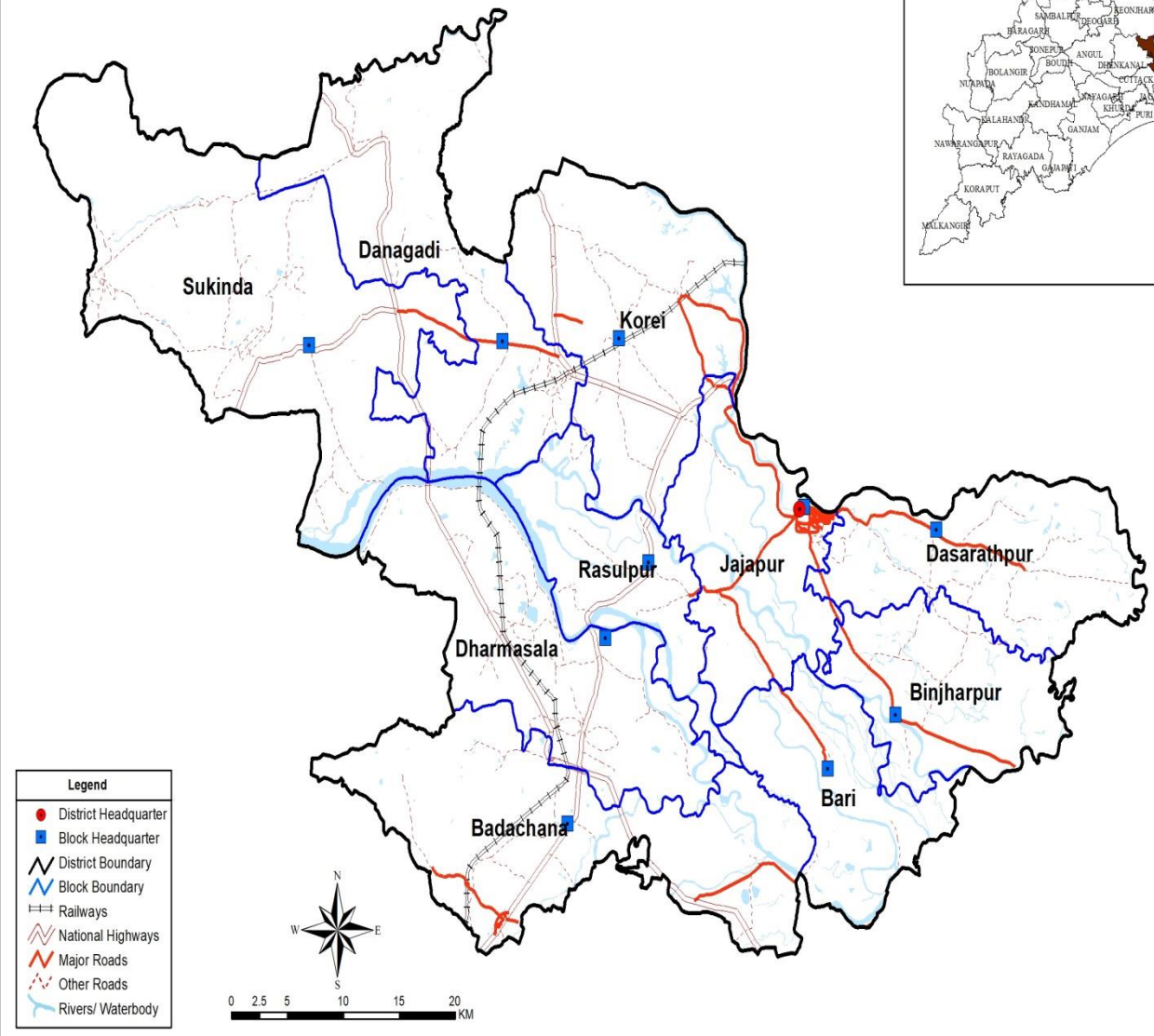
Administrative Setup:

The Collector and District Magistrate is the administrative head of the district. For smooth running of administration, he is assisted by Additional District Magistrates, Deputy/Assistant Collectors, Sub-Collectors, Block Development Officers and Tahasildars. In addition to this there are District level officers of other departments. Though they are under the administrative control of their respective departmental heads but the Collector as the administrative head of the district exercises general supervision over them. The district consists of 1 sub-division namely Jajpur, under the administrative control of a Sub-Collector. For smooth running of revenue administration, the district is divided into 10Tahasilsand 10 blocks.

There are 19 nos. of Police Stations in the district. Similarly, for looking after development of urban areas, there are 2nosULBs namely Jajpur and Vyasaganar Municipality each town is under the administrative control of an Executive Officer. The abstract of different units are as follows.

Sl. No	Name of the Sub-division	Name of the block/ ULB	No. of Gram Panchayats	No. of Villages/ Wards	No. of Tehsils	No. of RI Circles
1	JAJPUR	Badachana	43	259	1	16
2		Dharmasala	45	320	1	15
3		Sukinda	25	138	1	8
4		Danagadi	23	126	1	8
5		Korei	28	250	1	14
6		Jajpur	26	212	1	10
7		Rasulpur	28	175	1	9
8		Bari	29	112	1	10
9		Binjharpur	29	114	1	10
10		Dasarathpur	35	160	1	12
11		Jajpur(M)	-	18(Ward)	-	
12		Vyasaganar(M)	-	26(Ward)	-	
	TOTAL		311	1866/44	10	112

JAJPUR DISTRICT



Chapter-4: EARLY WARNING DISSEMINATION

Forecast and Issuance of Heat Wave Alert by IMD

Heatwave is a major weather hazard since recent years and has affected different parts of the country. Lightning and Thunder storms are extreme weather events. The lightning strikes are instantaneous and it hits within flash of seconds. Thus, it gives very little time to an individual react. These severe weather events use extensive structural damages, destruction of crops, uprooting of trees and casualties. Every year thousands of people are dying due to heat wave. Most of the deaths happen in rural areas and in open spaces or in agricultural fields. There is a need to develop an effective early warning dissemination protocol to minimize the loss of life. IMD -Forecast and Issuance of Heat Alert or Heat Warning India Meteorological Department (IMD), Ministry of Earth Sciences, is the nodal agency for providing current and forecast weather information, including warnings for all weather-related hazards for optimum operation of weather-sensitive activities. It provides warning against severe weather phenomena like tropical cyclones, squally winds, heavy rainfall/snow, thunder-squall, hailstorm, dust storms, heat wave, warm night, fog, cold wave, cold night, ground frost, etc. It also provides real time data and weather prediction of maximum temperature, heat wave warning, extreme temperatures, and heat alerts for vulnerable cities/rural areas. IMD issues forecasts and warnings for all weather related hazards in short to medium range (valid for the next five days) every day as a part of its multi-hazard early warning system.

The State should therefore, carryout the irrespective threshold assessments for mortality and provide the information to IMD so that it can provide specific warning alerts to those States along with Color code, Meaning, Temperature Details and Action Needed such as Green colour signifies No action in a Normal Day during which Maximum temperatures are near normal Comfortable temperature, Yellow Alert (Be updated) signifies moderate heat which is likely to persist for 2 days during which Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. Avoid heat exposure on receive the Orange Alert (Be prepared) Severe Heat Alert for the day.

- (i) Severe heat wave conditions may exist for 2days.
- (ii) With varied severity, heat wave is likely to persist for 4days or more.

High temperature will increase likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.

- ❖ High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. Avoid heat exposure - keep cool. Avoid dehydration. Impact on Vulnerabilities
- ❖ Impacted by water logging and disrupted infrastructure
- ❖ Impacted by shortage of water.
- ❖ Prone to health and fire risks.
- ❖ Prone to shortage of power supply and disrupted infrastructure. Faces additional stress on ecosystems
- Population impacted
- ❖ Commercial units
- ❖ Urban residents
- ❖ Slum residents
- ❖ Women, Children and Students

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

Monitoring Heat wave by DDMA:

Based on IMD observations, heat conditions of District are analyzed on a daily basis by DDMA from March-June every year. Maximum temperature map of the state is prepared on GIS platform. The information is disseminated to the different stakeholders through Social Medias. As per the Decision of the DDMA, Jajpur, the Senior Officers are assigned to monitor the Disaster Management Activities (Heat Wave) in the Block/ULB as follows,

Sl. No	Senior Officer	Block/ULB assigned
1	ADM(Rev)	Jajpur Block and Municipality, Jajpur
2	ADM(Gen)	Dasarathpur, Binjharpur,
3	ADM, Kalinganagar	Danagadi, Sukinda, Vyananagar Municipality
4	CDO-Cum-EO, ZP, Jajpur	Rasulpur, Korei
5	Sub-Collector, Jajpur	Badchana, Dharmasala, Bari

Information Dissemination:

SATARK is a decision support system based on the Web /Smart phone that helps to provide early warning information for different risks. It is an application developed by OSDMA in collaboration with RIMES. Heat Wave advisory system uses IMD defined Heat Wave thresholds to automatically generated advisories based on forecast and disseminate advisories to the users well ahead of time about

The likelihood of a Heat Wave along with precautionary measures to be taken. Every day, the SATARK system transmits the 10-day forecast information to the concerned government officials at State, District and Block level through e-mail automatically. It has improved risk communication in the state. “SATARK” mobile application was developed both in IOS and Android, providing block level alerts and preparedness advisories (Do’s and Don’ts) in Odia and English languages. The application is incorporated with observation and forecast data from Indian Meteorological Department (IMD) and the best available forecast products. Block level and location specific alerts are issued through Mobile App, E-Mail, SMS and other available sources. The advisories are freely available through SATARK mobile application. In the near future, all the forecast information provided by the application will include the value-added information provided by IMD-RC, Bhubaneswar.

Chapter-5

Institutional Mechanism:

District Disaster Management Authority (DDMA):

As per the Disaster Management Act, 2005, there are 3 tiers institutional mechanism for disaster management in the country. The National Disaster Management Authority (NDMA) is at National level, SDMA at State level and DDMA at district level.

The DDMA, Jajpur, is constituted under the sub-section (1) of section 14 of DM act 2005 by the State Government.

The District Disaster Management Authority (DDMA) consists of the Chairperson and such number of the other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following namely: -

- a) The Collector or District Magistrate or Deputy Commissioner of the District is the Chairperson (*ex-officio*) of DDMA.
- b) The elected representative of local authority is the Co-chairperson (*ex-officio*) of DDMA.

Provided that in the Tribal Areas, as referred to in the Sixth Schedule to the Constitutions, the Chief Executive Member of the district council of autonomous district, shall be the co-Chairperson, *ex-officio*

- c) The Chief Executive of the District Authority, *ex-officio*;
- d) The Superintendent of Police, *ex-officio*;
- e) The Chief Medical Officer of the district, *ex-officio*;
- f) Not exceeding two other district level officers, to be appointed by the State Government

The State Government appoints an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be of the District to be Chief Executive Officer of DDMA.

The DDMA, Jajpur, is constituted as per the Odisha Government Notification No.IVF-(OSDMA)-24/10-46196/R&DM

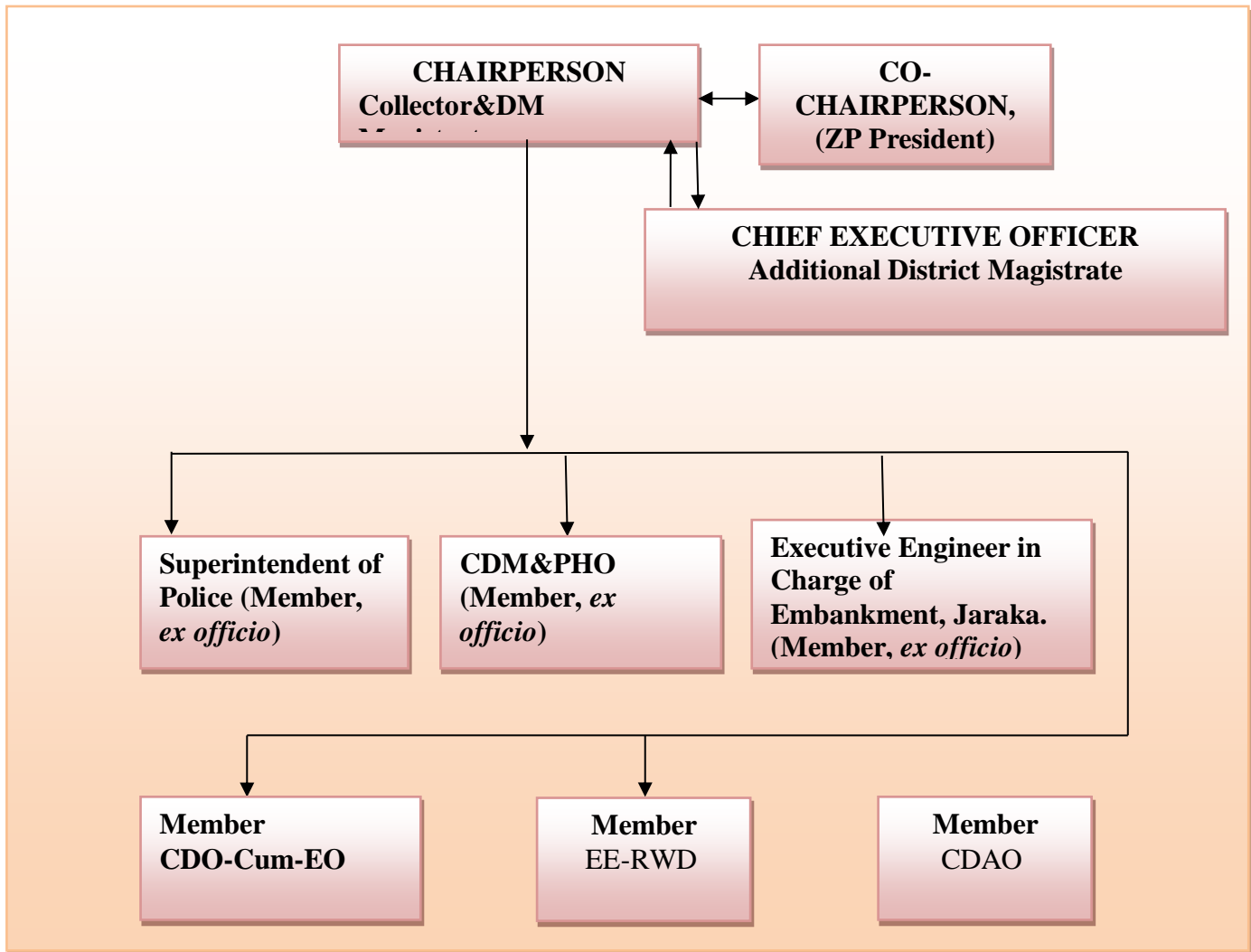
Structure of District Disaster Management Authority (DDMA), Jajpur.

Sl No.	Designation	Position in DDMA
1	Collector & District Magistrate	Chairperson, Ex-Officio
2	President, Zilla Parishad, Jajpur	Co-Chairperson, Ex-Officio
3	Superintendent of Police	Member, Ex-Officio
4	Additional District Magistrate.	Chief Executive Officer, Ex-Officio
5	Chief District Medical & Public Health Officer.	Member, Ex-Officio
6	Executive Engineer in Charge of embankments, Jajpur.	Member, Ex-Officio.
7	CDO-Cum-EO, ZP	Member
8	Executive Engineer, Rural Development, Jajpur	Member
9	Deputy Director, Agriculture/CDAO	Member

Position of DDMA, Jajpur as on 10.04.2023

Sl No.	Name of the Officer	Designation	Position in DDMA	Contact No.
1	Chakravarti Singh Rathore,IAS	Collector & District Magistrate.	Chairperson, Ex-Officio	9437102067
2	Smt.Naliniprabha Jena	President ZP, Jajpur	Co-Chairperson, Ex-Officio	7083468773
3	Vineet Agarwal,IPS	Superintendent of Police	Member, Ex-Officio	8375865857
4	Dr.DibyalochanMohanta, OAS(S)	Additional District Magistrate (Rev)	Chief Executive Officer, Ex-Officio	9437230451
5	Dr.Sibasish Maharana	Chief District Medical & Public Health Officer.	Member, Ex-Officio	9439992257
6	Er. Sarat Ch Ghadei	Executive Engineer in Charge of embankments, Jajpur.	Member, Ex-Officio.	8917367233
7	Ashok Kumar Behuria,OAS(S)	CDO-Cum-EO, ZP	Member	9437632515
8	Er.Gyana Ranjan Nayak	EE-RWD,Jajpur	Member	9437255341
9	Kamal Kumar Nayak	CDAO	Member	9437327172

Organogram of District Disaster Management Authority (DDMA).



The DDMA acts as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by the NDMA and SDMA.

The District Disaster Management Authority (DDMA) shall:-

- a) Prepare Disaster Management Plan including District Response Plan of the District.
- b) Coordinate and Monitor the implementation of the National DM Policy, State DM Policy, State DM Plan and District DM Plan.
- c) Ensure that vulnerable areas of the districts are identified and prevention and mitigation measures are being undertaken by the departments of the Government both at district level and at local level.

- a) Ensure that guidelines for Prevention and Mitigation measures, Preparedness and Response as lay down by NDMA and SDMA are being followed by all departments of Government both at district and local level.
- b) Monitor the implementation of Disaster Management Plans prepared by the departments of the Government at the district levels.
- c) Lay down guidelines to be followed by different Government departments both at district level and local level for integrating disaster prevention and mitigation measures in their development plans and projects and provides necessary technical assistance therefor;
- d) Review the state of capability for responding to any disaster or threatening disaster like situation in the district and give directions to the relevant departments or authorities at the district level for their up gradation.
- e) Review the preparedness measures and give directions to the concerned departments at the district level for bringing the preparedness measures to the levels required for responding effectively to any disaster.
- f) Organize, coordinate and facilitate specialized training programmes and awareness programmes for different level of officers, employees, voluntary rescue workers and community members for prevention and mitigation of disaster with support of governmental and non-governmental organization and local authorities.
- g) Set up, maintain, review and upgrade mechanism for early warning and dissemination of proper information to public.
- h) Review development plans prepared by the departments of the government at the district level, statutory authorities with a view to make necessary provisions therein for prevention of disaster or mitigation.
- i) Examine construction in any area in the district an ensure standards for prevention of disaster or mitigation laid down for such construction to be followed by the concerned departments and authorities.
- j) Identify buildings and places which could be used as relief centers or camps in the event of any disaster or disaster like situation and make arrangements for water supply and sanitation in such buildings and places.
- k) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at short notice;
- l) Encourage the involvement of Non-Government Organization and Voluntary social – welfare institutions working at the grass root level in the district for disaster management.

- m) Ensure communication systems are in order and disaster management drills are carried out periodically.
- n) Perform such other functions as the State Government or State Authority may assign to.

Chapter-6

District Action Plan -2023-24: Preparedness, Mitigation, Response & Relief measures.

The role and responsibilities of all Block/Tahasil level officers of the concerned line departments as well as other Stake Holders were taken in preparing the action plan.

India Meteorological Department (IMD) and DEOC/Block:

- ✚ Issue early warning and disseminate heat alert to all the key stakeholders.
- ✚ Issue bulk emails to the key institutions/ key offices and persons.
- ✚ Media brief using TV/ Radio/ Newspapers
- ✚ Provide meteorological data for Heat Wave study and research for better mitigation activities.
- ✚ Provide 5 days forecast and warning on heat wave for all the districts of Odisha.
- ✚ Provide past 24 hours weather data
- ✚ Provide district forecast for 7 days consisting of Maximum & Minimum Temperatures, sky condition and weather of selected cities of Odisha.

ZP, Block & Panchayat Samiti:

- ✚ Block level Preparatory meeting should be conducted under the chairmanship of the BDO and to be completed by 15th March.
- ✚ Convening of Block Level NGO Coordination Committee (BLNCC) meeting for building strong partnership & involvement of Civil Society Organizations (CSO) in management of Heat Wave & Water Scarcity in the block. It will be preferably to be conducted by 15th March.
- ✚ Members of Panchayati Raj Institutions in the block 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.
- ✚ Prepare Vulnerability map and identify Water Scarcity GPs/Wards/Villages.
- ✚ As reported by SE-RWSS, Jajpur, there are 67 Water scarcity areas/Villages in the district and detailed mentioned in Chapter-5, The supply of water to those areas is to be ensured & special focus to be given for water scarcity management.
- ✚ Sensitize vulnerable population on Heat Wave through WSHG/Federation and through GKS and Village Disaster Management Committee (VDMC).
- ✚ Public announcement about the do's and don'ts issued by the department of Health and family welfare and OSDMA.
- ✚ Provision of water kiosks, tube wells, tankers at strategic locations.
- ✚ Provision of funds in department budget for capacity building.
- ✚ Encourage for alternative livelihoods activities & rescheduling of works.
- ✚ Encourage for alternative livelihoods activities. (Restrict the working hours from 11 AM to 3 PM under MGNREGS).
- ✚ Preparation of contingency plan for water scarcity management in the block.
- ✚ Redressal of grievances relating to water scarcity issues within 24 hours.

- ✚ Opening of Control Room during summer season and coordinate with DEOC.
- ✚ Supply of Drinking water and shade nets at working sites.
- ✚ Construction of ponds, artificial lakes for cooling the environment by evaporation
- ✚ Identification of cooler places.
- ✚ Provide cool shelter during summer (must be explored through innovation and partnership).
- ✚ The water scarcity village as per experience in the last summer shall be identified and preventive measures shall be taken at the time of necessity for supply of drinking water through Tankers / Tractors loaded with water Tanks etc.
- ✚ Opening of MFS/MCS in day time for sheltering of needy/poor people in view of Heat wave situation. Necessary arrangement should be made along with community level awareness generation by members of CSMMC/Task Force Volunteers/Aapada Mitra Volunteers.
- ✚ Provision of funds for Heat Wave management.

Action: CDO-Cum-EO, SE-RWSS, DPO, BDO,

.

Housing and Urban Development Department: ULB

- ✚ Give directives to Urban Local Bodies (ULBs) /Development Authorities to increase access to public parks, water bodies, public libraries for general public.
- ✚ Promote and construct 'Heat Resistant Building' as a mitigating measure in the long run.
- ✚ Improve sanitation and hygiene of the water distribution points
- ✚ Give directives to Urban Local Bodies (ULBs) /Development Authorities to increase access to public parks, water bodies, public libraries for general public.
- ✚ Create small, accessible green spaces by using vacant spaces such as side lots, parking medians, spaces between buildings and roads.
- ✚ Keep large public parks open during peak hours to provide cool resting spaces for the public.
- ✚ Give directives and ensure cool roofs initiative to paint roofs white (albedo paint), create green roofs and walls, and plant trees in neighborhoods to keep them cool.
- ✚ Develop a strategy to incorporate the green belt concept in urban planning, evaluate the efficacy of these initiatives and the highest priority locations for intervention.
- ✚ Issue directives to ULB/Development Authorities for use of K-glass, doubly glazed glass in buildings and vehicles which prevent the extra entry of heat inside.
- ✚ Provision of funds in the departmental budget for capacity building.
- ✚ Provision of funds for Heat Wave management.
- ✚ Display heat alerts and precautionary measures at strategic points.
- ✚ Providing shelter and shades in open and high congregation places
- ✚ Opening of the parks during peak hours.
- ✚ Providing drinking water through water kiosk (Pania Jala Seva Kendra) at strategic points.
- ✚ Water supply to slums through tankers.
- ✚ Public announcements through public address system

- ✚ Provision of ice pack, first aid and water at City public transport vehicles plying during peak hours.
- ✚ Provision of vats (near tube wells) for drinking water for animals.
- ✚ Provision for Water sprinkling to settle down the suspended particles on roads.
- ✚ Issue advisories for Albedo painting of office building /houses/apartment/schools/hospitals and other buildings.
- ✚ IEC/BCC activities through Ward Kalyana Samiti (WKS),Mahila Arorgya Samiti(MAS) ,urban ASHA under NUHM in Jajpur Municipality.
- ✚ Regular conducting of meeting of the WKS and MAS in each ward of the Jajpur Municipality having an agenda on Heat wave Management apart from other agenda. The said meeting must be attended by concerned health staff without fail.
- ✚ Provision of **Water Kiosk (Jal Chhatra)** at strategic point in each ward and untied fund of MAS may be utilized for the said under the supervision of WKS.
- ✚ To check and arrest the flying dusts and to take other mitigative measures in urban areas the letter **No.6132 Dt.17.03.2017 of the Commissioner –cum-Secretary, HUD, Govt. of Odisha** should be followed.

Action: PD-DUDA,CDM &PHO, DPHO, EO-Municipality.

Health and Family Welfare: Public Health measures

- ✚ Capacity building of Health Care Service Providers (Doctor, Nurses, Pharmacist and health workers) on diagnosis and management heat related illness.
- ✚ Maintaining data base and surveillance on heat related morbidity and mortality.
- ✚ Provision for Health facility readiness to manage heat affected patients (beds, staff, inventories, ambulance etc.).
- ✚ Cool hospital initiatives for hospitals (Albedo painting).
- ✚ Special attention towards high-risk patients like geriatric/ pediatric/pregnant women etc.
- ✚ Timely submission of autopsy report in case alleged/death due to Sunstroke.
- ✚ Training of 108 Ambulance staff and ‘Mobile Health Units (MHU)’ for management of heat related cases.
- ✚ Display do’s and don’ts of Heat Waves on ‘Swasthya Kantha’ (village health wall),
- ✚ Sensitize community on Heat Wave related issues at 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 system through the ASHA/ ANM/ health workers for effective and immediate assessment of heat stroke cases.
- ✚ Development of specific reporting form for heat related events including morbidity and mortality.
- ✚ Regular conducting of GKS meeting in each GKS with proper follow-up and monitoring and having an agenda on Heat wave Management apart from other agenda of the meeting. The said meeting must be attended by concerned health staff without fail.

- ✚ Provision of water kiosk at strategic point at GKS level out of GKS/GP untied fund.
 - ✚ Coordinate with private hospitals to collect heat related morbidity and mortality data.
 - ✚ Provision of power back up during summer at institution level.
 - ✚ IEC/BCC activities through Ward Kalyana Samiti (WKS), Mahila Arorgya Samiti (MAS), urban ASHA under NUHM in Jajpur Municipality.
 - ✚ Awareness on Heat Wave to students of AWC, Schools (Day/Residential) through RBSK, MHT staff as per their micro plan.
-
- ✚ DPM-NHM, ADPHCO, Asst. Manager CP will be responsible for awareness and IEC/BCC activities in the district.
 - ✚ Timely launching of Anshughata Ratha and awareness generation in the block.
 - ✚ Provision of funds for Heat Wave management under RKS Action Plan.
 - ✚ All other measures to be taken as per the guidelines of the DPH, Odisha.

Action: CDM&PHO, DPHO.

Labor and Employee's State Insurance Department: Welfare of Laborer

- ✚ Issue directives for flexible working hours to restrict heat exposure (Prohibition working time: 11AM to 3.30 PM) & enforcement (from March to April) or as earlier decided by Govt. and enforcement.
- ✚ Guidelines for workers to protect from heat exposure and provision of First Aid, drinking water and cooling space at work site.
- ✚ Awareness activities for construction workers, factory laborers, manual laborers and workers whose occupations require intensive work outdoors during extreme heat about the risks, signs, and symptoms of heat stress.
- ✚ Training on heat illness diagnosis and management for factory medical officers.
- ✚ Advisory for one A/C relief chamber at factory facilities for emergency
- ✚ Ensuring health centers/dispensary are open during peak summer hours.
- ✚ Ensure overseeing construction sites, quarries, factories and other vulnerable worksites, particularly during high temperature periods, to enforce labor laws related to heat safety.
- ✚ Provision of funds for Heat Wave management.

Action : DLO, Rural Labour Inspectors.

School and Mass Education:

- ✚ Restriction of school timing (6.00 am to 11.00 am) during summer and as per the Govt. guidelines.
- ✚ Ensuring of availability of safe drinking water in School & Colleges
- ✚ Sufficient ORS to be kept in schools, colleges and provided to students/staff requiring the same.
- ✚ Outdoor activities have to be restricted so as the students not to be exposed to Heat Wave condition.
- ✚ 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.
- ✚ Ensure Avoidance of physical activities during school hours.
- ✚ Issue directive for Albedo painting on school roofs
- ✚ Updating of School Safety Plan, School Safety Committee.
- ✚ Convening of District/Block School Safety Advisory Committee by March-April & Monitor all activities.
- ✚ IEC activities on Heat Wave prevention and management in schools (Promote School Safety Plan).
- ✚ Encourage Plantation of trees and promote green campus.
- ✚ Provision for safe drinking water, ice packs, ORS, etc., at schools and examination centers.
- ✚ Training to the teachers and mock drills among students via special workshops and classes on identification, health risks and the subsequent management during Heat Waves.
- ✚ Provision of funds for Heat Wave management.

Action: DEO, DPC-SS, BEO

Department of Commerce and Transport:

- ✚ Provision for Creating awareness among drivers and other staffs, Bus/Truck Association and NGOs.
- ✚ Issue guidelines for each public transport to address Heat Wave.
- ✚ Restriction of plying times during the Severe Heat Wave condition. Restricted Time (11AM to 3PM) for non-A/C buses and with Enforcement
- ✚ Provision of First Aid, safe drinking water, ice pack, ORS in buses and provision of cool resting spaces at bus stops.
- ✚ Provision of water kiosk on highways.
- ✚ Coordinate with 24X7 Control Room at district Level (RTO Office).
- ✚ Temporary passenger shed shall be erected at strategic bus stoppages with water provision.
- ✚ Overcrowding in public transport must be avoided.
- ✚ Provision of funds for Heat Wave management.

Action: RTO , Jajpur & Chandikhole

Department of Energy: TPNODL

- ✚ Create awareness among people on energy conservation.
- ✚ Develop a policy for power cuts depending on vulnerable areas and population.
- ✚ Guidelines for workers of the department.
- ✚ Uninterrupted power supply during summer months to Priority Govt. institutions including Health Institutions.
- ✚ Power shedding should be cut down/reduced during severe heat (frequency and timing).
- ✚ The timing should be announced before one day.
- ✚ Frequency and regularities should be maintained
- ✚ Advance Preventive repair & maintenance

- ✚ Provision of power back-up for life line institutes.
- ✚ Provision of funds for Heat Wave management.

Action: SE/Divisional Managers (Electrical), TPCODL

Department of Tourism and Culture:

- ✚ Ensure proper registration of tourists who are visiting the spots.
- ✚ 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
- ✚ Provision of funds for Heat Wave management.

Action: DTO,BDO,EO-ULB.

Women and Child Development & Mission Shakti Department

- ✚ Use the Village Health Nutrition Day (VHND) and RI sessions for creating awareness and educate young girls and mothers regarding the dangers of Heat Waves, its related health impacts and the precautionary measures to be taken.
- ✚ Display IEC materials at Anganwadi Centre and encourage Anganwadi workers to disseminate Heat Wave related information with special focus on infants, children below five years, pregnant and lactating mothers, and geriatric population to protect them from dehydration.
- ✚ 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.
- ✚ Provision of drinking water and first aid at all the Anganwadi Centers, old age homes, Child Care Institutions (CCIs).
- ✚ Capacity building of WSHGs & Federation (GP/Block) members and awareness generation on Heat Wave Management & to ensure discussion & awareness generation in the monthly

meeting of the WSHGs and early warning dissemination. The CDPO, BPC, Mission Shakti will take lead role for its implementation.

- ✚ Provision of funds for Heat Wave management.

Action: DSWO, CDPO, DPC-Mission Shakti

Department of Forest and Environment

- ✚ Continuous watch in the forest area to avoid Forest Fires. Each forest fringe village should be fixed with some remuneration so as to engage themselves actively for prevention of forest fire.
- ✚ Directive for making water available for animals in reserved/ protected forests and make necessary provisions, where necessary.
- ✚ Issue directives to the Zoo Authorities for special arrangements for the animals in zoo to protect them from the effect of Heat Wave.
- ✚ Directive for provision of water to human habitations facing water scarcity inside reserved forests Provision of funds for Heat Wave management.
- ✚ Issue directives to the Zoo Authorities for special arrangements for the animals in zoo to protect them from the effect of Heat Wave.
- ✚ Directive for provision of water to human habitations facing water scarcity inside reserved forests (Provision of funds for Heat Wave management.
- ✚ Prior to the hot weather season, village level meetings should be conducted through NGOs who can make them aware regarding extinguish or not setting forest fire.
- ✚ Each Forest Division should dig out at least 06 nos. of causeway-shape pond so that the wild animals like elephant, tiger, deer, sambar, rabbit etc. can get water.
- ✚ To harvest / conserve rain water, the pits of size 1 cubic meter should be dug out at a distance of 10 meters inside forest and hill area. At least each Division should dig out 4000 nos. of such pit prior to rainy season by mentioning the GPS reading.

Action: DFO, Rangers.

ST & SC Development, Minorities and Backward

- ✚ Provision of availability of safe drinking water, ORS packets, ice packs and other required first aid material in school to manage Heat Wave related illness.
- ✚ Capacity building of key functionaries-trainings on Heat Wave management.
- ✚ Awareness generation among students through IEC materials display and activities.
- ✚ Changing the timing of examinations, changing the school timings.
- ✚ Provision of funds for Heat Wave management.

Action: DWO, WEO, all HMs.

Department of Fisheries and Animal Resources Development

- ✚ The farmers are to be requested not to leave their animals outside the shed during 11.00 AM to 4.00 P.M.
- ✚ Provision of adequate cold drinking water to be made for the animals and birds with its timely replacement.
- ✚ The farmers can rest their animals under the sheds of bushy trees during scorching heat.
- ✚ The Livestock and Poultry should not be over fed during peak hours of heat. More preferably the total ration required by the animals per day may be fed either in the early morning or during evening hours to avoid the heat incensement.
- ✚ The owners of the Livestock and Poultry may be requested to plant more numbers of bushy trees nearing the animal sheds.
- ✚ To avoid dehydration of the animals and birds electrolytes may be mixed with drinking water. In case of animals, common salt and molasses may be mixed with water for achieving the purpose.
- ✚ The animals and birds should not be vaccinated or dewormed during heat hours of the day to avoid any extra stress.
- ✚ The animals should be restrained from hard work in open areas/ field during heat hours of the day.
- ✚ The animas need to be bathed at least once during a day accordingly arrangements/ provisions are to be made.
- ✚ Animal sheds and poultry pens may be covered with water drenched clothes or gunny bags which may be periodically drenched.
- ✚ Usually in deep tube well waters remain cold during summer, which may be used for drinking of animals and birds.

Action: CDVO, SDVO.

Department of Water Resources

- ✚ 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.
- ✚ Create awareness among the people on Water conservation and effective use.

Action: All EE-OLIC, EE-MI

Department of Industry/ Steel and Mines:

- ✚ Issue directives for Heat Wave prevention and management for industries and mines.
- ✚ Generate awareness through IEC activities.

- ✚ Provision for water sprinkling to settle down the suspended particles.
- ✚ Provision of funds for Heat Wave management.

Action: GM, RIC, Deputy Director, Mines /Deputy Director F&B

Civil Society Organizations/ Corporate Social Sectors.

- ✚ To support the Govt. departments in generating awareness in community
- ✚ Support in setting up Jal Jogana Kendras (water kiosks) on road ways, remote places
- ✚ Distribute IEC materials duly accredited by the state health department and OSDMA
- ✚ Promoting healthy living style during summer.
- ✚ Support the state government in establishing shelter and sheds.

Action: All Block Nodal NGOs.

Social Security

- ✚ Rescheduling of time of Special Schools at par with the time of schools under S & ME Department.
- ✚ Rescheduling of time of pension disbursement from morning 7.30 AM to 10.30 AM.
- ✚ Ensuring availability of drinking water, ORS packets etc. and shed at the site of pension disbursement.
- ✚ Ensuring precautionary measures for field staff of SSEPD Department i.e. carrying drinking water, ORS packets and umbrella or use cap or while stepping outside on duty.
- ✚ Restricting visit of senior citizens and PwDs to outside during the pick hours especially from 11 AM to 3 PM during summer.
- ✚ Ensuring availability of drinking water, ORS packets and medicines of emergency nature in the special schools and old age homes and all residential institutions 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.
- ✚ Ensuring weekly visit by field officers of SSEPD Department to OAHs and residential schools under SSEPD Department.

Action: DSSO/SSSO/BSSO/All BDOs.

Information & Public Relation:

- ✚ DIPRO to take steps for wide public awareness through leaflets and posters of “Do’s & Don’ts” issued by the Health & Family Welfare Department that are to be disseminated through Print & Electronic Media and Co-ordinate with all related line departments at district level and report compliance.
- ✚ On receipt of warning message from IMD/ Rev. Control room through District Control Room the DIPRO shall make the general public alert by using local media.

Action: DIPRO

DDMA/ District and Block Administration.

- ✚ The convening the meeting of DDMA and District Level Preparatory meeting for effective management of Heat Wave in the district. It should be conducted preferably by 1st week of March and monitor the Heat Wave situation in the district.
- ✚ Dissemination of early warning message received from the IMD and SEOC to horizontally as well as vertically.
- ✚ Sharing of daily temperature (Maximum & Minimum), humidity level and Relative Humidity, etc recorded by Manual Surface Observatory for information of all concerned and taking further decision.
- ✚ Public Awareness campaign through electronic and print media on Heat Wave precautionary measures (Do’s& Don’ts)
- ✚ Give directions to prevent the Sunstroke deaths to various line departments/ functionaries as per the Heat Action Plan.
- ✚ Involve Civil Society Organizations and PRI members in awareness campaign and other measures to tackle the situation arising out of Heat Wave.
- ✚ Action plan for mitigating water scarcity problems in different towns and rural areas to be prepared. Water scarcity areas are to be identified in advance and supply of water for drinking and other uses through tanker to those areas has to be ensured. Preventive maintenance of tube wells has to be ensured. Suitable arrangement also to be made to promptly respond to reports of water scarcity anywhere in the district.
- ✚ All effort should be made to see that no human causality takes place due to heat wave. However, if any information on causality is received or report published in news paper, it should be immediately enquired into.
- ✚ Prompt steps are also to be taken for payment of ex-gratia to be bereaved family where, upon enquiry, the death is confirmed to be due to sunstroke.
- ✚ Inter-departmental Co-ordination, Monitoring and effective implementation of HAP-2022 of the OSDMA, Odisha & guidelines of the SRC Office in the district.

- ✚ The Senior Officers will verify and ensure necessary arrangements in medical institutions, schools, colleges, Anganwadi Centers,etc
- ✚ Smooth functioning of the DEOC and District Control Room from 6AM to 10AM till April,2023 and 24x7 basis from 01.05.2023 to 30.11.2023.
- ✚ Regular monitoring of the situation, Co-ordination and corrective measures.
- ✚ Promote to use “SATARK App”/DAMINI App, downloading from Google-Play Store for getting early warning information on Heat Wave /Thunderstorm & Lightning.
- ✚ Opening of MFS/MCS in day time for sheltering of needy/poor people in view of Heat wave situation. Necessary arrangement should be made along with community level awareness generation by members of CSMMC/Task Force Volunteers/Aapada Mitra Volunteers.
- ✚ Distribution of IEC posters received from the OSDMA on Heat Wave and Lightning for community awareness generation.
- ✚ *Wide awareness on SEOC/DEOC Toll Free No- 1070/1077. The DEOC, Jajpur, Land line Number -06728-222648.*
- ✚ Coordinate & monitor the opening of Control Room in different Key Offices and Block Level.
- ✚ Submission of weekly report as per Format-II to SRC Office.
- ✚ Submission of information along with every Joint Enquiry Report as per Format-I to SRC Office.
- ✚ Timely submission of PIR & Case Record.
- ✚ Timely Release of ex-gratia to NoKs through DAMPS.

Action: District/Block Administration

Reporting & Submission of FIR &Case Record :Tahasil.

- ✚ Submission of weekly report as per Format-II to district Office.
- ✚ Submission of information along with every Joint Enquiry Report as per Format-I.
- ✚ Timely submission of FIR & Case Record through DAMPS.

Autopsy and Joint Enquiry Report:

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

Condition -1

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

Condition-II

- ✚ In case of report of death of a person due to heat wave/sun stroke, except where the death has occurred in a hospital/Medical institution after being admitted and treated there, in addition to

the postmortem report, a joint enquiry shall be conducted by the local Revenue Officer authorized by the Collector/Sub-Collector and local Medical Officer of the PHC/SHC/CHC/DHH, which shall be taken into consideration for sanction of the ex-gratia.

Action: Tahasildar, Block MO I/C, Addl. Tahasildar.

Chapter-7:

Water Scarcity Management during summer:

1	Total No. of water scarcity GP/village	22 village under 14 G.P
2	Block-wise water scarcity GP/village	Details Attached
3	Block-wise No. of PWS	461 (Details attached)
4	Block-wise No. of Tube well functional & Non-functional	18341 functional 6 Non-functional (Details attached)
5	Alternative measures to meet water scarcity in water scarcity villages	Through water tankers and 40 nos. of PVC water tanks available in RWSS.
8	District contingency plan for heat wave & water scarcity management	Prepared
9	Deployment of additional man power & vehicles for management of water scarcity	Deployed as per the requirements

Block wise Water Scarcity villages in the district

Sl. No.	Name of the District	Name of the Division	Name of the Block	Name of the GP	Name of the Village	Name of the Habitation
1	Jajpur	Jajpur	BARI	RATNAGIRI	ALLIABAD	Alliabad das sahi
2	Jajpur	Jajpur			ROUT SAHI	Rout sahi
3	Jajpur	Jajpur		AMATHPUR	KAMPAGARH	Kampagarh
4	Jajpur	Jajpur	DHARMASALA	Kumari	Kumari	Kumari
5	Jajpur	Jajpur		Anjira	Samsundarpur	samsundapur
6	Jajpur	Jajpur		Sahanidhia	Charigotha	Charigotha
7	Jajpur	Jajpur		Neulpur	Neulpur	Muslim sahi

8	Jajpur	Jajpur	Rasulpur	kalana	Nuahata	kelasahi
9	Jajpur	Jajpur	Korei	Pachhikote	Kadama	Gaurpal
10	Jajpur	Jajpur				godarapal
11	Jajpur	Jajpur				ostapal
12	Jajpur	Jajpur			patrakana	All habitation
13	Jajpur	Jajpur			Andhari	Kiapada
14	Jajpur	Jajpur		koreigadia		All habitation
15	Jajpur	Jajpur		Sonlakoli		All habitation
16	Jajpur	Jajpur		Chadeipatia		All habitation
17	Jajpur	Jajpur		Tulati	Kuira	All habitation
18	Jajpur	Jajpur			Pimpala	All habitation
19	Jajpur	Jajpur			kogaon	All habitation
20	Jajpur	Jajpur		Taharpur	Kaduapada	All habitation
21	Jajpur	Jajpur		Kachrasahi	Rout pada	Uparsahi
22	Jajpur	Jajpur			madala	All habitation
23	Jajpur	Jajpur	Badachana	Charinangal	Charinangal	Charinangal
24	Jajpur	Jajpur		Nalipur	Nalipur	Nalipur

Block wise functional Tube well and Pipe Water Supply (Source; SE, RWSS)

Sl. No.	Name of Block	No. of G.P.	No. of Revenue village	No. of tube wells	No. of PWSs commissioned
1	Badachana	43	226	2033	46
2	Bari	29	97	1334	47
3	Dharmasala	45	247	1903	72
4	Rasulpur	28	161	1430	36
5	Jajpur	26	182	2713	41
6	Binjharpur	29	106	1873	46
7	Dasarathpur	35	151	1959	61
8	Sukinda	25	105	1677	25
9	Korei	28	216	1961	44
10	Danagadi	23	106	1464	43
Total :		311	1597	18347	461

Preparedness for Water Scarcity Management in the district.

- ✚ Spare parts have been procured for repair & maintenance of Tube wells in all Blocks.
- ✚ In all Blocks 80% mass verification of Tube wells, Sanitary wells have been completed. At the time of mass verification date of verification is mentioned in the body of the Tube wells.
- ✚ Regularly meeting is being held with BDO's / AE / JE regarding situations of water supply position in the District level Review Meeting.
- ✚ Steps are being taken up to repair Tube wells & PWS Schemes as soon as possible.
- ✚ Water Tanker will be supplied to scarcity pockets if required with consultation of the District Administration.
- ✚ GKS will monitor the water scarcity issues and minor repair & maintenance can be done by GKS from their untied fund. The SEM will take lead role.

- ✚ There will be grievance redressal mechanism at District/Block/GP level to resolve timely public grievances relating to water scarcity issues.
- ✚ The Block Nodal Officer will also monitor Water Scarcity Management in the block & Grievance Redressal Mechanism.
- ✚ Reporting of water scarcity issues daily basis to State.

Chapter-8

Hospital Preparedness & Clinical Treatment and Management:

District action plan for Heat Stress Disorder-2022

1. **Control Room**: One Control Room will function from 1st March 2023 to 15th July 2023 at all level i.e. District, CHCs, and PHCs from 8.00 AM to 8.00 PM. The control room at district level is functioning from **01.03.2022** in the Office of the DPHO, Jajpur having Telephone No-**06728-225228**.
2. **Drinking Water Facility**: Cold drinking water facilities are available in all health institutions (DHH, CHCs & PHCs). Instructions have been given to the field functionaries for opening of Jalachhatra at all the Sub-Centers from untied fund & at Village level from GKS fund.
3. **Management of Heat Stroke Disorder**:
 - a. Adequate number of fluids / ORS packets and other emergency medicines are readily available in all health institutions including the Sub Centers / Anganwadi Centers and with ASHAs.
 - b. All ILR points / Deep Freezes are functioning at different strategic places for easy availability of Ice and Ice packs.
 - c. One bed in PHC (N)/, 2 beds in CHCs and 6 beds are earmarked at DHH, Jajpur for heat stroke patients.
 - d. Air Conditioner/Air Cooler / Water cooler are available and functional in different health institutions.
 - e. Doctors and Medical Staff are kept in alert for 8 hourly emergency duty on rotation basis.
 - f. Ambulance and Mobile Health Team are kept ready for emergency meeting.
 - g. Generator/inverters are available in DHH/SDH/CHCs for power failure.
4. **IEC Activities** :
 - a. All categories of health personnel & ICDS personnel are sensitized on Heat Stroke Disorder, its prevention and management during monthly meeting at different level by 1st week of March 2023. Also MO I/Cs are instructed to facilitate the sensitization activity in their CHC complex periodically on Priority basis. If necessary, re-sensitization will be done.
 - b. Instructions have been given for group discussion by MPHw (M&F), MPHS (M&F), PHEOs and MOs during field visit regarding Heat Stroke Disorder among the AWWs/ASHAs and in the GKS for awareness.
 - c. Instruction has been given to all MO of CHCs & SDMOs for distribution of leaflets and display of flex banners at strategic locations to create awareness among common people to keep them inform about Do's and Don'ts as regards exposure to heat wave, fluid intake regulation of work, clothing , protective device and work environment during the heat wave period.

5. **Review Meeting on Heat Stroke Disorder-2023:**

Discussion will be made in the Monthly review meeting among the Programme Officers of Dist. Headquarter Hospitals, Jajpur, SDMOs, All MO I/C CHCs/ Area Hospitals, PHEOs & BPMs.

6. **Reporting of incidence:** Instruction has been given for submission of daily report of Heat Stroke incidence to the DPHO, Jajpur by Phone or E-Mail followed by confirmation in the format.
7. In case of Suspected Heat stroke death Joint Enquiry need to be conducted immediately along with Revenue personnel's and report to that effect to be sent to the O/o Collector and DM, Jajpur, O/o CDM & PHO, Jajpur& O/o DPHO, Jajpur.
8. Investigation of all News items/ Rumours regarding sunstroke enquiry to be done as and when required.

Heat Disorders:

- ✚ Heat Edema/Rash
- ✚ Heat Cramps
- ✚ Heat Syncope
- ✚ Heat Exhaustion
- ✚ Heat Stroke (Sun Stroke)

Heat Disorders: Symptoms and First Aid:

Sl.No	Heat Disorder	Symptoms	First Aid
1	Heat Edema/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
2	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
3	Heat Syncope	Light Headedness, Dizziness, Fainting	Put the patient in a cool place and elevate the legs, If regained consciousness: rest and adequate rehydration. If remained unconscious: treat as shock.
4	Heat Exhaustion	Heavy sweating, weakness, Skin cold, pale,	Get victim to lie down in a cool place. Loosen clothing. Apply cool, wet cloth. Fan or move victim to air-conditioned

		headache and clammy extremities. Weak pulse. Normal temperature possible. Fainting, vomiting.	place. Give sips of water slowly and if nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention; call 108 and 102 for ambulance.
5	Heat Stroke	High body temperature. Hot, dry skin. Rapid, strong pulse. Possible unconsciousness or altered mental status. Victim will likely not sweat	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.

Heat-related illnesses: Summary of Spectrum

Heat Related Illness	Clinical Presentation	Treatment
Heat edema	<ul style="list-style-type: none"> • Mild swelling of feet, ankle and hands • Appears in few days of exposure to hot environment • Does not progress to pretibial region 	<ul style="list-style-type: none"> • Usually resolves spontaneously within days to 6 weeks • Elevate leg • Compressive stocking • Diuretics are not effective
Prickly Heat	<ul style="list-style-type: none"> • Pruritic, maculopapular, erythematous rash normally over covered areas of body • Itchiness • Prolonged or repeated heat exposure may lead to chronic dermatitis 	<ul style="list-style-type: none"> • Antihistamine • Wear clean, light, loose fitting clothing • Avoid sweat generating situations • Chlorhexidine in a light cream or lotion base • Calamine lotion
Heat Cramps	<ul style="list-style-type: none"> • Painful, involuntary, spasmodic contractions of skeletal muscle (calves, thighs and shoulder) • Occur in individuals sweating profusely and only drinking water or hypotonic solutions • Limited duration • Limited to certain muscle group 	<ul style="list-style-type: none"> • Fluid and salt replacement (IV or oral) • Rest in cool environment
Heat Tetany	<ul style="list-style-type: none"> • Hyperventilation • Extremity/s and circumoral paresthesia • Carpedal spasm 	<ul style="list-style-type: none"> • Calm the patient to reduce respiratory rate • Remove from hot environment

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

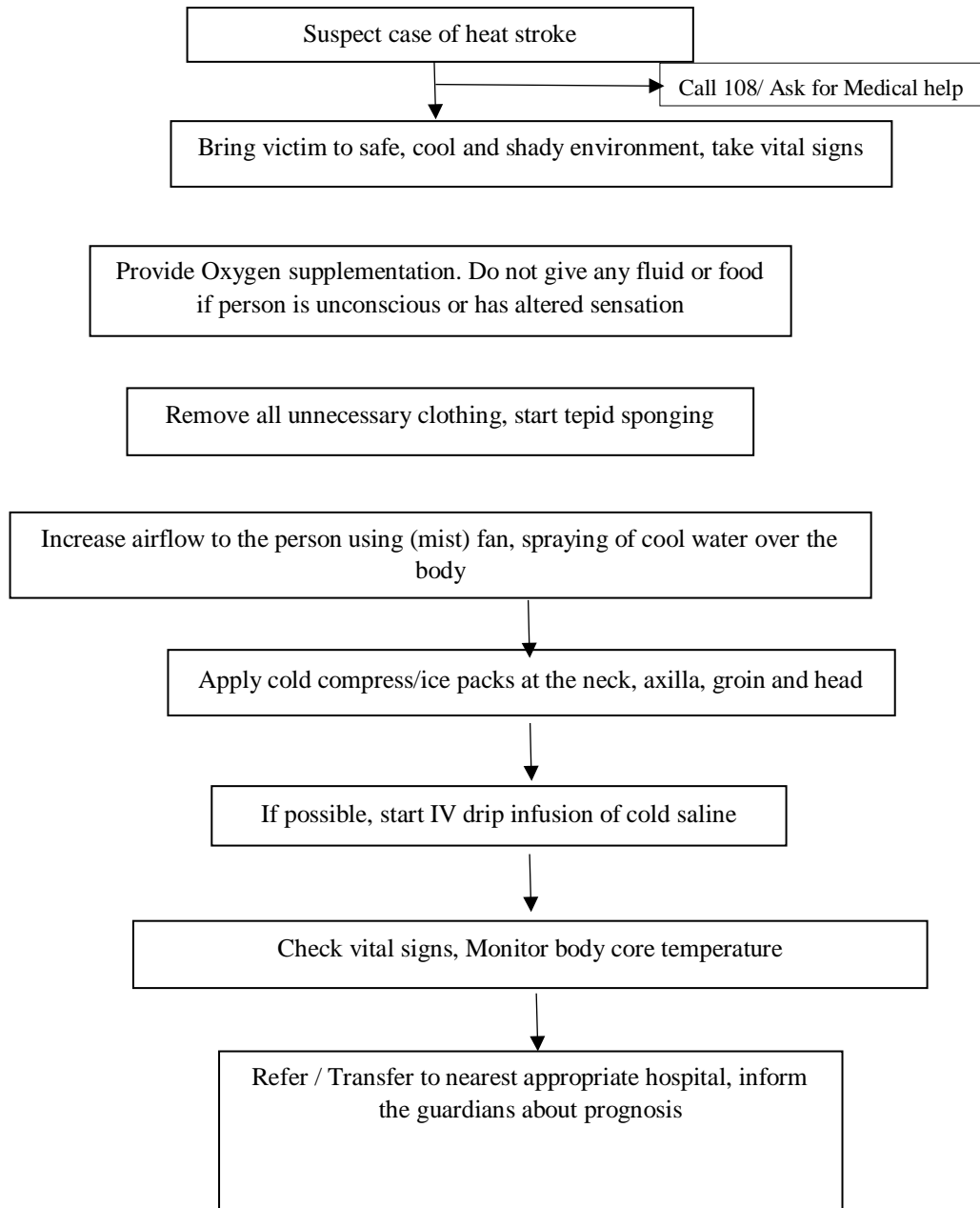
Heat stroke Work Up

There is no diagnostic test for heat stroke. However, laboratory tests are available for detection of end organ damage secondary to the metabolic derangement and ruling out other differential diagnosis of hyperthermia and CNS dysfunction. The following laboratory investigations need to be done

S.No	Laboratory investigation	Rationale
1	Arterial Blood Gases (ABG)	To detect hypoxaemia that can occur in patient with continuous seizure or inadequate respiration secondary to brain injury. Metabolic acidosis (due to lactic acidosis) can occur secondary to acute renal impairment
2	Random Blood Sugar	Exclude diagnosis of hypoglycaemia in unconscious patient and also hyperglycaemia in patient with underlying diabetes or undiagnosed diabetes
3	Serum Electrolytes	<p>Sodium</p> <p>Detection of hypernatremia or hyponatremia due to reduced intake of fluid and dehydration, and guide the choice of fluid for resuscitation</p> <p>Potassium</p> <p>To detect hypokalemia or hyperkalemia that occurs in early phases of heat stroke, muscle damages and during treatment</p> <p>Calcium</p> <p>Hypocalcaemia occur due to binding of calcium to damaged muscles</p>
4	Liver Function Test (LFT)	<p>Hepatic injury is a consistent finding in patients with heatstroke.</p> <p>Aspartate aminotransferase [AST] and Alanine aminotransferase [ALT] levels commonly rise to thousands during the early phases of heatstroke and peak at 48 hours, but sometimes they may take as long as 2 weeks to peak. Jaundice may be striking and may be noted 36-72 hours after the onset of liver failure</p>
5	Coagulation studies	Direct thermal injury also leads to denaturation of proteins exhibited by dysfunctional enzymes. Any derangement of coagulation is a sign of poor prognosis
6	Complete Blood Count	Thermal injury to vascular endothelium causes platelet aggregation and deactivation of plasma protein leading

		to platelet aggregation and decrease in clotting factor. Total white cell count (as high as 40,000/ μ L) may be elevated due of infection and thrombocytopenia. Also there is haemo concentration which is indicated by elevated PCV and Hb
7	Renal Function Test (RFT)	Acute kidney injury may be due to inadequacy of volume, dehydration, rhadomyolysis, or direct thermal injury to renal parenchyma. Elevations in serum uric acid levels, blood urea nitrogen, and serum creatinine are common in patients whose clinical course is complicated by renal failure.
8	Cerebrospinal fluid analysis	Cerebrospinal fluid (CSF) cell counts may show a nonspecific pleocytosis, and CSF protein levels may be elevated as high as 150 mg/dL. This test may be considered in patients in whom CNS infection has been kept as a possibility
9	Muscle function tests	Creatinine kinase (CK), Lactate dehydrogenase (LDH), Aldolase, and Myoglobin are commonly released from muscles when muscle necrosis occurs. CK levels exceeding 100,000 IU/mL are common in patients with Exertional Heat Stroke(EHS). Elevations in myoglobin may not be noted despite muscle necrosis because myoglobin is metabolized rapidly by the liver and excreted rapidly by the kidneys
10	Electrocardiography (ECG)	Arrhythmias is one of the complications of heat stroke. Also rule out underlying cardiac disease / myocardial injury
11	Imaging studies	<p>Chest X ray</p> <p>CXR carried out to detect presence atelectasis, pneumonia, pulmonary infarction and pulmonary oedema complementing clinical examination</p> <p>CT Scan</p> <p>CT scan can be performed once patient is hemodynamically stable and is helpful to rule out intracranial bleeding in patient who does not show improvement in neurological signs</p>

Management workflow of Suspected Heat Stroke victims at PHC level before referral to higher centre



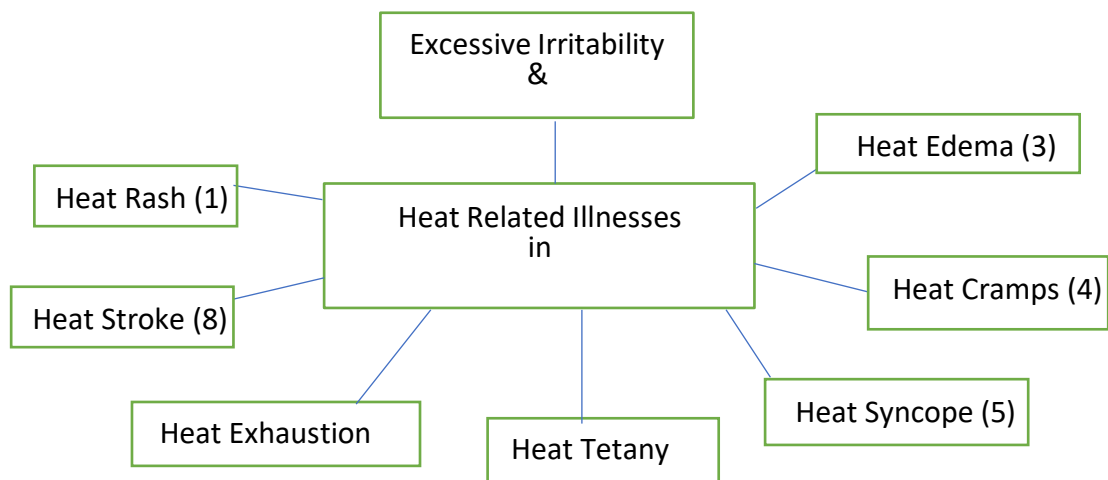
Consider heat illness in differential diagnosis if:

- Presented with suggestive symptoms and signs
- Patient has one or more of the following risk factors:
 - Extremes of age (infants, elderly)

- ii. Debilitation/physical deconditioning, overweight or obese
- iii. Lack of acclimatization to environmental heat (recent arrival, early in summer season)
- iv. Any significant underlying chronic disease, including psychiatric, cardiovascular, neurologic, hematologic, obesity, pulmonary, renal, and respiratory disease
- v. Taking one or more of the following:
 1. Sympathomimetic drugs, Anticholinergic drugs, 3. Barbiturates, 4. Diuretics, 5. Alcohol,
 6. Beta blockers.

Heat related illnesses in Paediatric age group

Heat-related illnesses (HRI) in paediatric age group encompass a spectrum of disorders from heat rash, heat syncope, and heat exhaustion to a life-threatening emergency such as heat stroke.



The treatment and preventive measure for HRI in paediatric age group are as follows:

1. Heat Rash/Milia Rubra/Prickly Heat
 - Treatment:
 - i. Place in cool environment
 - ii. Remove excess clothing
 - iii. Avoid application of lotions
 - Prevention
 - i. Use loose fitting clothing & remove excess cloth
 - ii. Avoid direct sunlight
 - iii. Avoid excessive heat
 - iv. Frequent breast feeding/fluids
2. Excessive irritability & dehydration

- Treatment
 - i. Place in cool environment
 - ii. Remove excess clothing
 - iii. Frequent breast feeding/fluids
- 3. Heat Edema (more common in adults): swelling of feet/ankle/hands
 - Treatment
 - i. Remove from hot environment & place in cool environment
 - ii. Elevate the affected extremity
- 4. Heat Cramps: common in young athletes
 - Painful, involuntary, spontaneous contraction of muscle group of legs/calf/groin
 - Treatment
 - i. Remove from hot environment
 - ii. Rehydration (frequent oral fluids), if persist then intravenous fluid may help
- 5. Heat Syncope
 - It is seen with prolonged standing in hot environments that causes vasodilatation and a fall in blood pressure due to venous pooling in the legs

(which causes a decrease in venous return to the heart causing a fall in cardiac output) resulting in fainting or feeling light headed.

- Remove the child from hot environment
- Oral rehydration with salt containing fluids (ORS/Lassi/Nimbupani/Ricewater/ Dal water/ Coconut water/Sattu etc)
- 6. Heat Tetany
 - It can be differentiated from heat cramps by the fact that there is very little pain or cramps in the muscle.
 - Treatment
 - i. Remove the child from hot environment
 - ii. Calm the child to decrease hyperventilation
 - iii. Intravenous calcium after admission
- 7. Heat Exhaustion
 - After prolonged heat exposure, the body temperature rises upto 104 °F and leads to dehydration, tachycardia, vomiting, fatigue and headache with normal mental status (sometimes mild confusion may present).
 - It requires admission and specialist care
 - Treatment
 - i. Remove child from hot environment
 - ii. Oral rehydration with salt containing fluid
 - iii. Look for dyselectrolytemia
 - iv. Intensive care monitoring and intravenous rehydration
 - v. Rule out sepsis

8. Heat Stroke

- Prolonged exposure to heat leads to core body temperature rising to ≥ 40 °F
- Patient presents with stupor/coma/drowsiness/confusion/delirium/hallucination/seizures/ataxia
- Anhidrosis
- Coagulopathy
- Multi-organ dysfunction
- Treatment
 - i. Admission
 - ii. Check airway, breathing, circulation
 - iii. Give oxygen, intravenous fluid connection
 - iv. Do random blood sugar (RBS), arterial blood gas (ABG), electrolytes(Na/K/Ca), liver function test (LFT), renal function test (RFT), coagulation profile, neuroimaging to rule out CNS bleed, etc.

Danger signs

- Refusal to feed
- Excessive irritability
- Decreased urine output
- Dry oral mucosa & absence of tear/sunken eyes
- Lethargy/altered sensorium
- Seizures
- Bleeding from any site → seek immediate medical help if danger signs are present

Clinical Workflow in Emergency Department for Management of Heat Stroke in children

Primary triage – confirm heat stroke

Assess the airway, breathing, circulation, and (neurologic) impairment, ensure IV access and send relevant investigations

- Consider intubation if necessary
- Consider benzodiazepines for seizures, or excess shivering

- **Shock:**
 - Normal saline bolus @ 20 ml/kg and reassess
 - Repeat bolus if necessary upto total of 60 ml/kg
 - Watch for features of fluid overload
 - Continue normal maintenance fluid
- **No shock:** Assess dehydration status, correct and start normal maintenance fluid

Institute active cooling measures:

1. Removal of all clothing while protecting patient's dignity
2. Cover with thin wet sheet / spray cool water
3. Ice pack over head, neck, groin and axillary regions
4. Use mist fan / evaporative method
5. Tepid sponging / cool blankets if available
6. Make the child lie down; raise the feet slightly
7. Avoid Paracetamol or NSAIDS

Close monitoring of the following:

1. Temperature every 15-30 minutes (do not overcorrect to less than 38°C). Even hypothermia can be fatal in children
2. Vital signs (BP/HR/SpO₂), watch for altered cardiac rhythms (ECG), altered mental status (GCS)
3. Look out for complications of treatment: -
 - a. Acute pulmonary Oedema
 - b. Hypothermia
4. Seizure - treat with benzodiazepines (Midazolam 0.1-0.2 mg/kg/dose slow over 5 minutes I/V or Lorazepam 0.005-0.1 mg/kg/dose over 2-5 minutes I/V)
5. Prevent shivering (by paralyzing patient if intubated)
6. Look for signs of coagulopathy
7. Arterial Blood Gases (ABG) regularly – look for metabolic acidosis
8. CT brain – to look for complications or rule out intracranial pathology

Guidelines for children going for sports activity during summer season

Those who come from a cooler climate to a hotter climate, especially during the heat wave season, are at risk. They should be advised not to move out in open for a period of one week. This helps the body get acclimatized to heat. They should also be advised to drink plenty of water. Acclimatization is achieved by gradual exposure to the hot environment during a heat wave.

1. **Screening**
 - a. All athletes to be screened by coaches/ doctors to identify any health conditions or medications that may predispose them to heat related illnesses.
 - b. Athletes with recent or current history of fever or gastrointestinal illnesses should not be permitted to participate
2. **Acclimatization (changing zones for sports activities from cooler area to warmer area)**
 - a. Athletes should acclimatize to warm weather and increase activity over 1 to 2 weeks.
 - b. Physical activity in hot weather should be increased slowly.
 - c. Exercise sessions be shortened and made easier when it's hot
3. **Athletic Gear and Garb**
 - a. Athletes should wear light coloured garments that are lightweight and loose-fitting.
 - b. Uniforms and practice gear should be made from open-weave or sweat-wicking materials to facilitate evaporative heat loss.
 - c. Sweat-saturated garments should be removed promptly.
 - d. The amount of athletic equipment should be worn in incremental steps
4. **Hydration**
 - a. Athlete to be adequately hydrate before, during, and after physical exertion
5. **Scheduling**
 - a. When weather is extremely hot, practices should be scheduled for mornings and evenings, when temperatures are generally cooler.

b. Contingency plans should be in place to reschedule practices or games if heat or humidity is expected to be severe.

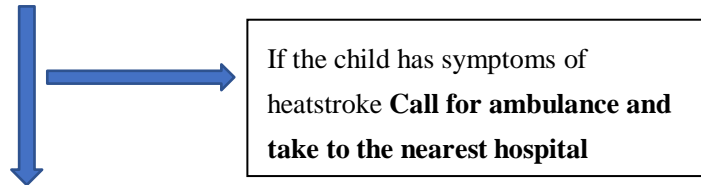
6. Preparation

a. Medical equipment and resources for rapid cooling (cold-water tubs, icetowels) should be available at athletic events.

b. An emergency action plan should be in place should any athlete develop signs or symptoms of heat exhaustion or heat stroke

[First Aid Instructions on Heat Exhaustion and Heat Stroke in Children](#)

<p>The symptoms may develop after being in high temperatures (such as heat waves) or after hard work or sports during hot weather</p>	
<p>Symptoms of Heat Exhaustion</p>	<p>Symptoms of Heatstroke</p>
<ul style="list-style-type: none"> • Increased thirst • Weakness and extreme tiredness • Fainting • Muscle cramps • Nausea and vomiting • Irritability • Headache • Increased sweating • Cool, clammy skin • Body temperature rises, but less than 105°F (40.5°C) 	<ul style="list-style-type: none"> • Severe headache • Weakness, dizziness • Acts or talks confused • Fast breathing and rapid heartbeat • Hard to wake up or can't wake up • Seizures • Flushed, hot, dry skin • Body temperature rises to 105°F (40.5°C) or higher



Prevention:

- Lookout for weather warnings issued by India Meteorological Department
- Teach kids to always drink plenty of liquids before and during any physical activity in hot, sunny weather even if they aren't thirsty
- Make sure kids wear light-colored, loose clothing in warm weather
- Remind kids to look for shaded areas and rest often, while outside
- Avoid activities during peak summer hour i.e., 12:00 noon to 03:00 pm
- Don't let kids participate in heavy activity outdoors during the hottest hours of the day
- Teach kids to come indoors immediately whenever they feel overheated
- Never leave a child alone, non- accompanied, inside a parked closed vehicle (look before you lock)

For cases of **heat exhaustion** or **while awaiting help** for a child with possible heatstroke:

- Bring the child indoors or into the shade immediately

Hospital Preparedness Plan

The hospital preparedness plan aims to provide a baseline framework for the preparation, implementation, coordination and evaluation of extreme heat response activities in health facilities in States.

There are three tables for planned activities during three different seasons i.e., pre heat season, during heat season and post-heat season.

The activities are divided in three broad categories i.e., infrastructure and logistics, capacity building and IEC/awareness for three different levels of health facilities i.e., primary health centre (PHC), Community Health Centre (CHC) and District Hospital (DH)/Medical College (MC).

Table 1. HOSPITAL PREPAREDNESS CHART-PRE HEAT SEASON								
INFRASTRUCTURE AND LOGISTICS			CAPACITY BUILDING			IEC/AWARENESS		
PHC	CHC	DH/MC	PHC (MOs, nursing staff, paramedics, ASHA, ANM)	CHC (MOs, nursing staff, paramedics, ASHA, ANM, MPHW)	DH/MC (MOs, nursing staff, paramedics, MPHW)	PHC	CHC	DH/MC
<ul style="list-style-type: none"> • Check inventories for basic equipment and medicines required as listed in annexure A, • Ensure adequate arrangement of staff, • Explore creation of Ice pack dispensaries to increase access to vulnerable communities, • Adopt long term measures such as cool roofs and improving green coverage of health facility. • Identify Rapid Response Team (RRT) to respond to any emergency call outside the hospitals • May try to establish outreach clinics at various locations easily accessible to the vulnerable population 			<ul style="list-style-type: none"> • A detailed action plan to tackle HRI (update annually) • Fresh/Refresher targeted training course - Maintaining hospital records, improve expedience of recording of cause of death, heat-focused examination procedures • Community involvement of trained staff to create awareness. 			<ul style="list-style-type: none"> • Preparation of Targeted IEC-boards, banner, poster, leaflets, factsheets, information cards, media, miking, rallies, song/drama activities, street plays • Planning of dissemination as per assessment of vulnerable area/communities • Conduct sensitization meetings • Prepare handouts for health staff about heat illness • Ensure the availability of funds for above activities 		
			<ul style="list-style-type: none"> • Mapping of susceptible villages (identify areas/population that are vulnerable) 	<ul style="list-style-type: none"> • Mapping of susceptible PHCs (identify areas/population that are vulnerable) 	<ul style="list-style-type: none"> • Mapping of susceptible blocks (identify areas/populations that are vulnerable) 			

Table 2. HOSPITAL PREPAREDNESS CHART-HEAT SEASON

INFRASTRUCTURE AND LOGISTICS			CAPACITY BUILDING			IEC/AWARENESS		
PHC	CHC	DH/MC	PHC (MOs, nursing staff, paramedics, ASHA, ANM)	CHC (MOs, nursing staff, paramedics, ASHA, ANM, MPHWH)	DH/MC (MOs, nursing staff, paramedics, MPHWH)	PHC	CHC	DH/MC
<ul style="list-style-type: none"> • Ensure adequate medical supplies available as indicated in Annexure A • Identify surge capacities and mark the beds dedicated to treat the heat stroke victims and enhance emergency department preparedness to handle more patients 			<ul style="list-style-type: none"> • Ensure reporting of HRI cases on daily basis • Adopt HRI treatment and prevention protocols • Expedite recording of cause of death due to heat related illnesses 			<ul style="list-style-type: none"> • Ensure IEC dissemination • Target the vulnerable area/communities followed by other areas. • Plan activities as per the 		

<ul style="list-style-type: none"> • Increase ASHA/ANM /MPHW outreach in at-risk villages during a heat alert, if feasible. 	<ul style="list-style-type: none"> • Increase ASHA/ANM/MP HW outreach in at-risk PHC during a heat alert, if feasible. • Ensure dedicated bed availability • Ensure ambulance availability 	<ul style="list-style-type: none"> • Increase MPH outreach in at-risk blocks during a heat alert, if feasible. • Ensure dedicated bed availability • Ensure ambulance availability • Dedicated heat corners • Increase staffing at DH/MCs to attend to the influx of patients during a heat alert, if feasible. • Have DNO-CC/SNO-CC visit CHCs to confirm proper preparation has been made for heat related illness and conduct case audits during heat season. 	<ul style="list-style-type: none"> • Referral of patients to the higher facility only after ensuring adequate stabilization and basic definitive care (cooling and hydration) 	<ul style="list-style-type: none"> • Prepare weekly reports of health impact for nodal officer • Conduct case review during heat season 	<ul style="list-style-type: none"> • Prepare weekly reports of health impact for nodal officer • Conduct case review during heat season 	<p>HeatWave alert issued by IMD</p>
---	--	--	--	---	---	-------------------------------------

Table 3. HOSPITAL PREPAREDNESS CHART-POST HEAT SEASON

Table 3. HOSPITAL PREPAREDNESS CHART-POST HEAT SEASON								
INFRASTRUCTURE AND LOGISTICS			CAPACITY BUILDING			IEC/AWARENESS		
PHC	CHC	DH/MC	PHC (MOs, nursingstaff, paramedics, ASHA, ANM)	CHC (MOs, nursingstaff, paramedics, ASHA, ANM, MPHw)	DH/MC (MOs, nursingstaff, paramedics, MPHw)	PHC	CHC	DH/MC
<ul style="list-style-type: none"> • Review to assess/identify gaps-if any e.g., <ul style="list-style-type: none"> ○ Any shortage of equipment, medicine, staff. ○ Any long term measures adopted and maintained • Enlist/document the lessons learnt for the next season 			<ul style="list-style-type: none"> • Review to assess/identify gaps-if any e.g., <ul style="list-style-type: none"> ○ Any flaw/fault in reporting channel/format/efficiency ○ Number of deaths reviewed • Enlist/document the lessons learnt for the next season 			<ul style="list-style-type: none"> • Review to assess/identify gaps-if any e.g., <ul style="list-style-type: none"> ○ IEC messages ○ Dissemination area/community ○ Efficient use of resources • Enlist/document the lessons learnt for the nextseason 		

Basic equipment and medicines required as a part of Hospital preparedness for heat season

Primary Health Centre (PHC), Community Health Centre (CHC), District Hospital (DH) and Medical Colleges should ensure following requirements before the start of heatseason:

1. Dedicated bed for HRI patients in cooler area of hospital,
2. Thermometer, ORS packets, Ice packs, BP apparatus,
3. Silver - sulphadiazine cream, Calamine lotion, Chlorhexidine in a light cream or lotion base
4. Cold IV Normal saline (0.9%), Dextrose 50% in water solution (D50W),
5. Glucometer and strip,
6. ECG equipment: ECG machine, Gel, electrodes, ECG paper
7. Cooling equipment: AC, Cooler, Fan as per requirement,
8. Water cooler,
9. Medicines: Lorazepam, diazepam,
10. Ambulance with ice packs and cold water,

Heat Related Illnesses Surveillance

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

FORMAT 1 (A): HEALTH FACILITY FORMAT

Daily line List of **Suspected Heat Stroke CASES[#]** at Health Facility
(From Medicine, Paediatrics and Casualty/Emergency department)
 (To be kept at health facility for record)

Name of health facility: _____						Date of reporting: _./_./_.					
Block: _____ District: _____											
Type of health facility (Circle the applicable): 1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital, 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....											
(A). Total no. of patients in department (Casualty/Emergency of Medicine + Paediatrics):											
Daily line List of Suspected Heat Stroke CASES[#] at Health Facility											
S.No	Hospital Registration No.	Name	Age*	Sex (M/F)	Address		Outcome within date of reporting (tick the box)				Remarks
					Block	District	Admitted	Died	Referred	Recovered	
Total											

*Age in completed years

Name of person filling the form:
 Designation:
 Signature:

Name of Facility In-Charge:
 Signature of Facility In-Charge:
 Date:

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

FORMAT 1 (B): HEALTH FACILITY FORMAT

Daily line List of Suspected Heat Stroke DEATHS[#] and Confirmed CVD DEATHS*

(From Medicine, Paediatrics and Casualty/Emergency department)

(To be kept at health facility for record)

Name of health facility: _____					Date of reporting: _./_./_.			
Block: _____ District: _____								
Type of health facility (Circle the applicable): 1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital, 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....								
(A). Total no. of all cause deaths in health facility (Casualty/emergency of Medicine and Paediatrics):								
Daily line List of Suspected Heat Stroke DEATHS and Confirmed CVD DEATHS								
S.No	Registration number	Name	Age	Sex (M/F)	Address		Deaths (tick the box)	
					Block	District	Suspected Heat stroke death ^{##}	Confirmed CVD death
Total								

Name of person filling the form:

Designation:

Signature:

Name of Facility In-Charge:

Signature of Facility In-Charge:

Date:

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

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

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

FORMAT 2: Health facility format for sending to DISTRICT

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

(Compilation of Format 1, A & B)

(To be sent to District Nodal Unit daily)

Name of health facility:				Date of reporting: _./_./_._			
Block:		District:					
Type of health facility (Circle the applicable): 1. PHC 2. CHC 3. Taluka/Rural Hospital/Block Hospital 4. Sub-district 5. District Hospital/Civil Hospital 6. Medical College & Hospital 7. Private hospitals with emergency facility 8. Other.....							
Department (Circle the applicable): 1. Emergency Medicine 2. Emergency Paediatrics 3. Casualty							
Date	Total patients in the department	New Suspected HeatStroke Cases (A)	Total Suspected Heat Strokecases since 1 st March 2020 (B)	All cause deaths ^{**}			
				Suspected Heat stroke deaths ^{##} (a)	Confirmed CVD deaths (b)	Others including unknown (c)	Total deaths (a+b+c)
01-03-21							
02-03-21							

Form filled by (Name):
Designation:
Signature:

Name of Facility In-Charge:
Signature of Facility In-Charge:
Date:

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

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

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

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

FORMAT 3 (B): DISTRICT FORMAT FOR SENDING TO STATE
Daily numbers of Suspected Heat Stroke CASES[#] and All cause DEATHS*

(Compiled from Format 3 A)

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

Cases and deaths due to heat stroke- <i>District name</i> 20__					Date of reporting: __/__/__				
Date	Total patients of the day (Emergency Medicine + Emergency Paediatrics +Casualty)	New Suspected Heat Stroke Cases (A)	Total Suspected HeatStroke cases since 1 st March, 20__ (B)	All cause deaths**				New Confirmed Heat Stroke Deaths***	Total Confirmed Heat Deaths since 1 st March 20__
				Suspected Heat stroke deaths### (a)	Confirmed CVDdeaths (b)	Others including unknown (c)	Total deaths (a+b+c)		
01-03-20									
02-03-20									

Name of person filling the form:

Designation:

Signature:

Name of nodal officer:

Signature of nodal officer:

Date:

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

#Suspected Heat stroke: Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature $\geq 40\text{ }^{\circ}\text{C}/\geq 104\text{ }^{\circ}\text{F}$** , without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. *(definition is applicable during heat wave season i.e., March to July)*

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

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

*****Confirmed Heat Stroke Death:** A suspected heat stroke death that is confirmed by death committee (heat death committee/three man committee) at district level.

FORMAT 4 (A): STATE FORMAT FOR DAILY COMPILATION (district wise)

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

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

Cases and deaths due to Heat Stroke- <i>State name</i> 2020							Date of reporting: <i>._./._./._.</i>			
S.No.	Name of District	Total patients of the day (Medicine + Paediatrics + Casualty/Emergency)	New cases of Heat Stroke (A)	Cumulative total of Heat Stroke cases since 1 st March, 2020 (B)	All cause deaths**				New Confirmed Heat Stroke Deaths***	Total Confirmed Heat Stroke Deaths since 1 st March 2020
					Suspected Heat stroke deaths ^{###} (a)	Confirmed CVD deaths* (b)	Others including unknown (c)	Total deaths (a+b+c)		
1	<i>District 1</i>									
2	<i>District 2</i>									
3	<i>District 3</i>									
	Total									

Name of person filling the form:
Designation:

Name of nodal officer:
Signature of nodal officer:

Signature:

Date:

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

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

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

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

*****Confirmed Heat Stroke Death:** A suspected heat stroke death that is confirmed by death committee (heat death committee/three man committee) at district level.

FORMAT 4 (B): STATE FORMAT FOR DAILY COMPILATION (day wise)
Daily numbers of Suspected Heat stroke CASES[#] and All cause DEATHS*
 (To be kept at State for record)

Cases and deaths due to Heat Stroke- <i>State name</i> 2020								Date of reporting: <i>._./._./._.</i>	
Date	Total patients of the day (Medicine + Paediatrics + Casualty/Emergency)	New cases of Heat Stroke (A)	Cumulative total of Heat Stroke cases since 1 st March, 2020(B)	All cause deaths**				New Confirmed Heat Stroke Deaths***	Total Confirmed Heat Stroke Deaths since 1 st March 2020
				Suspected Heat stroke deaths ^{##} (a)	Confirmed CVD deaths* (b)	Others including unknown (c)	Total deaths (a+b+c)		
01-03-20									
02-03-20									
Total									

Name of person filling the form:
 Designation:

Name of nodal officer:
 Signature of nodal officer:

Signature:

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

#**Suspected Heat stroke:** Altered mental status (including disorientation, delirium, seizure, obtundation) **with elevated core body temperature $\geq 40^{\circ}\text{C}$ / $\geq 104^{\circ}\text{F}$** , without signs of stroke, history of infection, or signs of medication overdose **OR** Altered mental status (including disorientation, delirium, seizure, obtundation) with hot and dry skin and deranged vitals i.e., tachycardia, tachypnoea and wide pulse pressure without signs of stroke, history of infection, or signs of medication overdose. (*definition is applicable during heat wave season i.e., March to July*)

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

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

*****Confirmed Heat Stroke Death:** A suspected heat stroke death that is confirmed by death committee (heat death committee/three man committee) at district level.

Control Room Functioning at Health Institution

Name of the Institution	Control Room along with the staff engaged their Contact Number	Name of the Officer In charge	Contact Number
DHH, Jajpur	06728 - 225228	Dr.Sudhansu Sekhar Bal, DPHO	9439992247
Jajpur Road CHC	Pragyna Paramita Sahoo. Pharmacist-9853987915	Dr. Santosh Kumar Prusti	9439999889
CHC Barchana	Biswajit Swain, BPM,9439998030 Manorama Swain, PHEO,9439998029 Subhendra Mishra, MPHS(M),9439998082	Dr. Ashok Kumar Mishra	7008725789
CHC Bari	Prafulla Nayak, PHEO, 9439992698 Bidyadhar Mallick, Pharmacist 9439992644 RadhabalabhavPrusty, MPHS(M) 9439992737	Dr. Sabyasachi Das	8917275145
CHC Binjharpur	Premananda Das, PHEO I/C- 9439992688 Jyoti Ranjan Mallick, Pharmacist- 9439992642	Dr.Khitish Kumar Nayak	8144286545
CHC Dangadi	Jharana Pradhan (SN)-9692011060 Manas Prusty, Pharmacist- 8917403830	Dr.Jyoti Ranjan Mohapatra	9439992561
CHC Mangalpur	Bigyan Ranjan Ray,Pharmacist- 9439998094 Banita Dash, PHEO-9439992274	Dr BindusagarSamal	9439992268
CHC Dasarathpur	Ranjan Kumar Sahoo, Pharmacist 9437118244	Dr Anasuya Jena	9439992269
CHC Dharmasala	06725-283020 Sabitarani Mohanty, PHEO, 9439992576 Susanta Kumar Sahoo, Pharmacist, 9439998136 Ashok kumar Mishra, BPM, 9439992596	Dr.Manas Ranjan Swain	9439992574
CHC Korei	Bharati Panda,PHEO 9439992470 Prasana Kumar Panda, Pharmacist 9437338115	Dr.Bhabani Sankar Das	9439046624
CHC Madhuban	Ashok Kumar Boitai,MPHS(M)- 9439992388 Suresh Kumar Jena, Pharmacist- (9439998026)	Dr Sudhir Kumar Sahu	9439992332

CHC Markandpur	Dr. Bindu Mishra, Ayush MO, 9439165785 Nanda Kishore Behera, Pharmacist - 9439992659 Sribasta Nayak, PHEO I/C. - 9439992429	Dr.Rup Narayan Sahoo	9776358299
CHC Sukinda	Antaryami Dhal, MPHS (M), 9439992518 Kartik Kumar Samal, Pharmacist- 9861229984	Dr Jayadev Nanda	9439992478

**Contingency plan for management of heat stroke patients
during the year 2023 in Jajpur District**

Sl. No.	Name of the Block	Name of the DHH / CHC / PHC / OH / PHC (N)	Nos. of Beds Earmarked	Availability (Yes / No)				ILR/ DF (Availability) & working or not
				Nos. Earmarked Room	Cooler	Air Conditioner	Functioning or not	
1	Barachana	Barachana CHC	2	1	0	1	functioning	Available & Working
2		1. Arakhpur(Bantala) PHC(N)	1	1	1	1	functioning	Not Available
3		2. Baujanga PHC(N)	1	1	1	1	functioning	Available & Working
4		3. Birupa-Genguti PHC(N)	2	1	1	1	functioning	Not Available
5		4. Baunsamuli PHC(N)	1	1	1	0	functioning	Available & Working
6		5. Chhatia PHC(N)	1	1	1	1	functioning	Available & Working
7		6. Darpani PHC(N)	1	1	1	1	functioning	Available & Working
8		7. Kolasingh PHC(N)	1	1	0	1	functioning	Not Available
9		8. Udayagiri PHC(N)	1	1	1	1	functioning	Not Available
10		9. Acc. Unit Chandikhoh	1	1	0	1	functioning	Not Available
11		10. Gopalpur Area Hosp.	2	1	1	1	functioning	Available & Working
12	Bari	Bari CHC	1	1	0	1	Functioning	Available & working
13		1. Ratnagiri PHC(N)	1	1	0	1	Functioning	Available & working
14		2. Balia PHC(N)	1	1	1	0	Functioning	Available & working
15		3. Kalamatia PHC(N)	1	1	0	0	—	Not available
16		4. Krusnanagar PHC(N)	1	1	1	0	Functioning	Available & working
17		5. Angala PHC(N)	1	1	0	0	—	Not available

18	Binjharpur	Binjharpur CHC	1	1	0	1	Functioning	Available & Working
19		1. Badapada PHC(N)	1	1	0	1	Functioning	Not Available
20		2. Haladidiha PHC(N)	1	1	0	1	Functioning	Not Available
21		3. Jari PHC(N)	1	1	0	1	Functioning	Available & Working
22		4. Kantipur PHC(N)	1	1	0	1	Functioning	Available & Working
23		5. Pritipur PHC(N)	1	1	0	1	Functioning	Available & Working
24		6. Ramachandrapur PHC(N)	1	1	0	1	Functioning	Not Available
25	7. Uttangara PHC(N)	1	1	0	1	Functioning	Available & Working	
26	Danagadi	Danagadi Ug PHC	2	1	0	1	Functioning	Available & Working
27		1. Jakhapura PHC(N)	1	1	0	1	Functioning	Available & Working
28		2. Rabana PHC(N)	1	1	0	1	Functioning	Not Available
29		3. Gobardhanpur PHC(N)	1	1	0	1	Functioning	Available & Working
30		4. Barakhai PHC(N)	1	1	1	1	Functioning	Not Available
31	Dasarathpur	Mangalpur CHC	1	1	0	1	Functioning	Available & Working
32		Dasarathpur CHC	1	1	0	1	Functioning	Available & Working
33		1. Ahiyas PHC(N)	1	1	1	0	Functioning	Available & Working
34		2. Kayangola PHC(N)	1	1	1	0	Functioning	Not Available
35		3. Radhagaon PHC(N)	1	1	1	0	Functioning	Not Available
36		4. Badakuanla PHC(N)	1	1	1	0	Functioning	Not Available
37		5. Kamalpur PHC(N)	1	1	1	0	Functioning	Not Available
38		6. Dakhinabandha PHC(N)	1	1	0	1	Functioning	Not Available
39	Dharmasala	Dharmasala CHC	1	1	0	1	Functioning	Functional Available
40		1. Arabala PHC(N)	1	1	0	1	Functioning	Functional Available
41		2. Aruha PHC(N)	1	1	0	1	Functioning	Functional Available
42		3. Balisahi PHC(N)	1	1	0	1	Functioning	Functional Available
43		4. Gadamadhupur PHC(N)	1	1	0	1	Functioning	Functional Available
44		5. Gangadharpur PHC(N)	1	1	0	1	Functioning	Functional Available
45		6. Jenapur PHC(N)	1	1	0	1	Functioning	Functional Available
46		7. Kabatabandha PHC(N)	1	1	1	0	Functioning	Functional Available
47		8. Kotapur PHC(N)	1	1	0	1	Functioning	Functional Available

48		9. Ramachandrapur PHC(N)	1	1	0	1	Functioning	Functional Available	
49		10. Rambhadevi Hospital	1	1	0	1	Functioning	Functional Available	
50	Korai	Korai CHC	1	1	0	1	Functioning	Available & Working	
51		1. Baitarani Road PHC(N)	1	1	0	1	Functioning	Available & Working	
52		2. Dulkhapatna PHC(N)	1	0	1	0	Functioning	Not Available	
53		3. Masudpur PHC(N)	1	1	0	1	Functioning	Available & Working	
54		4. Pachhikote PHC(N)	1	1	0	1	Functioning	Available & Working	
55		5. Panikoili PHC(N)	1	1	0	1	Functioning	Available & Working	
56		6. Sankhachilla PHC(N)	1	1	0	1	Functioning	Available & Working	
57		Rasulpur	Madhuban CHC	2	1	0	1	Functioning	Available & Working
58			1. Brahmabarada PHC(N)	1	1	0	1	Functioning	Available & Working
59	2. Haripurhat PHC(N)		1	1	0	1	Functioning	Available & Working	
60	3. Kundapatna PHC(N)		1	1	1	0	Functioning	Not Available	
61	4. Laxminagar PHC(N)		1	1	0	1	Functioning	Available & Working	
62	5. Singapur PHC(N)		1	1	1	0	Functioning	Available & Working	
63	Jajpur	1. Markandpur CHC	1	1	0	1	functioning	Available & Working	
64		2. Adampur PHC(N)	1	1	0	1	functioning	Available & Working	
65		3. BaruanChhak PHC(N)	1	1	1	0	functioning	Available & Working	
66		4. Sujanpur PHC(N)	1	1	0	1	functioning	Available & Working	
67		5. Kunjabiharipur PHC(N)	1	1	1	0	functioning	Available & Working	
68	Sukinda	Sukinda CHC	1	1	0	1	functioning	Available & Working	
69		1. Atta PHC(N)	1	1	1	1	functioning	Not Available	
70		2. Duburi PHC(N)	1	1	1	1	functioning	Available & Working	
71		3. Hatibari PHC(N)	1	1	1	1	functioning	Available & Working	
72		4. Kuhika PHC(N)	1	1	1	0	functioning	Available & Working	
73	Jajpur	D.H.H., Jajpur	2	1	0	1	Functioning	Available & Working	
74	Korei	Jajpur Road CHC	2	1	0	1	Functioning	Available & Working	
		Total	81	73	26	57			

Chapter-9

Information Education & Communication (IEC) and Behavioural Change Communication (BCC):

- ✚ Sensitize community on Heat Wave related issues at KishoriSwasthya Mela (adolescent health meet), and village Health Nutrition Day (VHND) and Routine Immunization (RI) sessions and distribution of IEC materials
- ✚ Regular conducting of GKS meeting in each GKS with proper follow-up and monitoring and having an agenda on Heat wave Management apart from other agenda of the meeting. The said meeting must be attended by concerned health staff without fail. All GKS will take up IEC/BCC activities on Heat Wave Management utilizing untied funds.
- ✚ IEC/BCC activities through Ward Kalyana Samiti (WKS), Mahila Arorgya Samiti (MAS), urban ASHA under NUHM in Jajpur Municipality.
- ✚ Awareness on Heat Wave to students of AWC, Schools (Day/Residential) through RBSK, MHT staff as per their micro plan.
- ✚ There will be an educative session in the school on Heat Wave Management as a BCC.
- ✚ DPM-NHM, ADPHCO, Asst. Manager CP will be responsible for awareness and IEC/BCC activities in the district.
- ✚ Timely launching of Anshughata Ratha and awareness generation in the block.
- ✚ IEC materials, like Posters, Leaflets will be distributed by CDM&PHO for community awareness generation.
- ✚ IEC materials, like Posters, Leaflets to be supplied by the OSDMA, Odisha, Bhubaneswar, will be distributed to all Health Institutions, Schools, AWC, etc. for institution as well as Community level awareness generation for DRR.

The Leaflets developed by the OSDMA and H&FW Deptt. and WHO for Heat Wave Management as follows,



ଅଶୁଦ୍ଧାତ ପ୍ରତି

ସାବଧାନ !



ସଚେତନତା ଓ ସଚର୍କତା ହିଁ ସୁରକ୍ଷା!



OSDMA

ଓଡ଼ିଶା ରାଜ୍ୟ ବିପର୍ଯ୍ୟୟ ପରିଚାଳନା ବର୍ତ୍ତମାନ
ରାଜ୍ୟ ଚଳନ, ଭୁବନେଶ୍ୱର

- ✓ ଟାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
- ✓ ଖରାରେ କଠିନ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- ✓ ଜରୁରୀ କାମରେ ବାହାରକୁ ଯିବାକୁ ହେଲେ ମୁଣ୍ଡରେ ଓଦା ଗାମୁଛା, ଛତା, ଚପଲ ଏବଂ କଳା ଚଷମା ବ୍ୟବହାର କରନ୍ତୁ ।
- ✓ ବାହାରକୁ ଯିବା ସମୟରେ ପାଣି ବୋତଲ ସାଙ୍ଗରେ ନିଅନ୍ତୁ ।
- ✓ ଜଳ ଶୁଷ୍କତାରୁ ରକ୍ଷା ପାଇବା ପାଇଁ ଅଧିକ ପାଣି, ଓ.ଆର୍.ଏସ୍ ଦ୍ରବଣ, ପଣା, ଡୋରାଣି, ଘୋଳଦହି ଓ ଆଖୁରସ ପିଅନ୍ତୁ । କାକୁଡ଼ି, ଚରତୁଜ ଆଦି ଖାଆନ୍ତୁ ।
- ✓ ମାତକ ଦ୍ରବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।
- ✓ ହାଲୁକା ଏବଂ ଢିଲା ପୋଷାକ ପରିଧାନ କରନ୍ତୁ ।
- ✓ ଅଶୁଦ୍ଧାତରେ ଆକ୍ରାନ୍ତ ବ୍ୟକ୍ତିଙ୍କୁ ଯଥାଶୀଘ୍ର ଡାକ୍ତରଖାନା ନେଇ ଚିକିତ୍ସା କରାନ୍ତୁ ।
- ✓ ଗୃହପାଳିତ ପଶୁପକ୍ଷୀମାନଙ୍କୁ ଛାଇରେ ରଖନ୍ତୁ ଏବଂ ପ୍ରଚୁର ପରିମାଣରେ ପାଣି ପିଇବାକୁ ଦିଅନ୍ତୁ ।



ପାଣି



ରେଭୁଳ



କାକୁଡ଼ି



ଓ.ଆର୍.ଏସ୍



ଡୋରାଣି



ହାଲୁକା ପୋଷାକ










ଚଷମା, ଚପଲ, ଛତା



ଅଶୁଦ୍ଧାତ ପ୍ରତି ସତର୍କ ରୁହନ୍ତୁ

କ'ଣ କରିବା ଉଚିତ୍ !

-  ଦିନ ୧୧ ଟାରୁ ୩ଟା ଭିତରେ ଖରାବ ତାପି ସବୁଠାରୁ ଅଧିକ ଥାଏ । ଏଣୁ ଟାଣ ଖରାରେ ପଦାକୁ ବାହାରକୁ ନାହିଁ ।
-  ଆବଶ୍ୟକ ସ୍ଥଳେ ବାହାରକୁ ଯିବାକୁ ହେଲେ ମୁଣ୍ଡକୁ ଓଦା ଗାମୁଛାରେ ଘୋଡ଼ାନ୍ତୁ ଏବଂ ଛତା, ଯୋତା ଓ କଳା ଚଷମା ବ୍ୟବହାର କରନ୍ତୁ ଓ ସାଥରେ ଅଣ୍ଟାପାଣି ନିଅନ୍ତୁ ।
-  ବାହାରକୁ ଯିବା ଆଗରୁ ଓ ପହଞ୍ଚିବା ପରେ ସୁରେଇ, ମାଠିଆ ଓ ଘୁମ ଆଦିରେ ଥିବା ପାଣି, ଲେମ୍ବୁ ସରବତ, ଘୋଳଦହି, ଲୁଣ ମିଶା ତୋରାଣି ପିଅନ୍ତୁ ।
-  ଶରୀରରେ ବାୟୁ ଚଳାଚଳ ପାଇଁ ସୂତା ଲୁଗା ବ୍ୟବହାର କରନ୍ତୁ ।
-  ହାଲିଆ ଲାଗିଲେ ଛାଇ ଯାଗା ଓ ପବନଚଳାଚଳ ସ୍ଥାନରେ ବିଶ୍ରାମ ନିଅନ୍ତୁ ।
-  ଘରେ ଟିଣ ଓ ଆକବେଷ୍ଟ ଛାତ ଥିଲେ ତା' ଉପରେ ନଡ଼ା ବିଛାନ୍ତୁ ।
-  ଦେହରୁ ଅଧିକ ଝାଳବୋହିଲେ, ପାଟି ଅଠା ଅଠା ଲାଗିଲେ - ପ୍ରଚୁର ପାଣି, ଓ.ଆର.ଏସ୍, ଓ ପଣା ପିଅନ୍ତୁ ।



କ'ଣ କରିବା ଅନୁଚିତ୍ !!

- X** ଟାଣ ଖରାରେ ଶାରୀରିକ ପରିଶ୍ରମ କରନ୍ତୁ ନାହିଁ ।
- X** ବୃକ୍ଷ, ଅସୁସ୍ଥ ଲୋକ, ଶିଶୁ, ଗର୍ଭବତୀ ମହିଳା ଏବଂ ରକ୍ତଚାପ ଓ ମଧୁମେହରେ ପୀଡ଼ିତ ବ୍ୟକ୍ତି ଟାଣ ଖରାରେ ବାହାରକୁ ଯାଆନ୍ତୁ ନାହିଁ ।
- X** ଅଶୁଦ୍ଧାତ ରୋଗୀ ଦେହରେ ବରଫ ଘଷନ୍ତୁ ନାହିଁ ।
- X** କେହି ଅସୁସ୍ଥ ଅନୁଭବ କଲେ ତାଙ୍କର ଚିକିତ୍ସା ପ୍ରତି ଅବହେଳା କରନ୍ତୁ ନାହିଁ ।
- X** ନିଶା ଦ୍ରବ୍ୟ ସେବନ କରନ୍ତୁ ନାହିଁ ।

ଓ.ଆର.ଏସ୍ ପ୍ୟାକେଟ୍ ସମସ୍ତ “ଆଶା” ଅଜ୍ଞାନତ୍ୱ କେନ୍ଦ୍ର, ସ୍ୱାସ୍ଥ୍ୟ ଉପକେନ୍ଦ୍ର, ସ୍ୱାସ୍ଥ୍ୟକେନ୍ଦ୍ର ଓ ସରକାରୀ ହାତରଖାନା ଗୁଡ଼ିକରେ ମାଗଣାରେ ମିଳେ । ସରକାରୀ ହାତରଖାନା ମାନଙ୍କରେ ଅଶୁଦ୍ଧାତ ରୋଗୀଙ୍କ ପାଇଁ ଚିକିତ୍ସା ସୁବିଧା କରାଯାଇଛି ।



ରାଜ୍ୟ ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ପ୍ରତିଷ୍ଠାନ, ଓଡ଼ିଶା



National Centre for Disease Control
Government of India

Ministry of Health & Family Welfare
Government of India

World Health Organization
India

Beat the Heat

Do's

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

Don'ts

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

People at risk

National Centre for Disease Control
Government of India

Ministry of Health & Family Welfare
Government of India

World Health Organization
India

Safeguard Workers from Heat

Provide safe working environment

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

Administrative measures

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

108

People at risk

Chapter-10

Contact details:

Sl No	Name	Designation	Mobile No.
1	Sri Chakravarti Singh Rathore, IAS	Collector & DM, Jajpur	7978232123
2	Sri Vinit Agrawal, IPS	S.P, JAJPUR	9438916456
3	Sri Dukhabandhu Nayak, OAS (S)	ADM, (GEN.), Jajpur	7978582957
4	Dr. Dibya Lochan Mohanta, OAS(S)	ADM, (REV.) Jajpur	9437230451
5	Sri Santosh Kumar Mishra, OAS(S)	ADM, Kalinganagar	9437314878
6	Sri Ashok Kumar Behuria, OAS(S)	CDO-cum-EO, Zilla Parishad	9437632515
7	Gopinath Kuanr, OAS(S)	Sub-Collector, Jajpur	7682991646
8	Sri Umesh Chandra Lenka	District Emergency Officer	7008758625
9	Sri Nimain Charan Das	DPO, OSDMA	7978633979
10	Dr. Sibasish Maharana	CDM & PHO, Jajpur	9439992257
11	Dr. Sudhansu Sekhar Bal	DPHO, Jajpur	9439992247
12	Er. Sahoo	EE, PHED, Jajpur	9776660277
13	Er. Susanta Kumar Ghadei	SE, RWSS	9937306616
14	Nilakantha Pradhan	RTO, Jajpur	7008859316
15	Sambit Kumar	RTO, Chandikhole	9437506686
16	Er. Bibhuranjan Sahoo	SE, TPNODL, Jajpur	9438906093
17	Er. Deepak Kumar Behera	Divisional Manager, TPNODL, Jajpur	9438906106

18	Er. Pramod Kumar Nayak	Divisional Manager,TPNODL,Jajpu r Town	9438906105
19	Bibhutibhusan Behera	Dy. Director Mines,Jajpur	9437160443
20	Santosh Kumar Mohanty	DLO,Jajpur Road	8917547930
21	Sri JyotikantaBhujabala Smt. Pragatika Bal	Tahasildar,JajpurAddi.Ta hasildar,Jajpur	9178136557 7992826165
22	Damayanti Sahoo Sudhasangita Sahoo	Tahasildar,Sukinda Addi. Tahasildar, Sukinda	8260047587 9853216615
23	Namrata Modi Narayan Dixit	Tahasildar,DanagadiAddi .Tahasildar, Danagadi	820010560 7326996611
24	Smt. TilottamaPrusty	Tahasildar,Bari	9777214882
25	Smt. MinatiJagdev	Tahasildar,Binjharpur	8249693724
26	Dr. Niranjan Sahoo Miss Subhasmita Nayak	Tahasildar,Rasulpur Addi. Tahasildar, Rasulpur	9439254883 8093893777
27	Sri Abinash Biswajit Sethi	Tahasildar,Dasarathpur	7217668441
28	Sri Ashok Kumar Majhi Bikram Kumar Mallick	Tahasildar, Vyasaganar Addi.Tahasildar, Vyasaganar	7008544755 7008515018
29	Sri Subhadarshan Mishra Sri Niranjan Guru Sri Gagan Bihari Dash	Tahasildar, Darpan Addi.Tahasildar, Darpan Addi. Tahasildar, Darpan	8895512190 7377685774 9437410500
30	Sri Swagat Das Sri Tapan Kumar Mallik	Tahasildar,Dharamala Addi.Tahasildar, Dharmasala	9438677726 7978571541
31	Sri Sourav Chakrabati	BDO,Jajpur	9556116056
32	Smt. Sweta Singdha	BDO,Dasarathpur	8826526336
33	Namrata Modi	I/C, BDO, Sukinda	8280010560

34	Sri Abanikanta Sahoo Sri Dibyakanti Mishra	BDO,Rasulpur ABDO, Rasulpur	9861142773 8895707528
35	Sri Debendra Prasad Bal Sri Asit Kumar Patra	BDO,Dharmasala ABDO, Dharmasala	6371914674 7008686910
36	Namrata Modi	BDO, Danagadi	8280010560
37	Smt. MinatiJagdev Birendra Kumar Das	BDO,Binjharpur ABDO, Binjharpur	8249693724 8908349676
38	Namita Barik Maheswar Sethi	BDO, Bari ABDO,Bari	9439916129 9437524761
39	Sri Ranjan Kumar Parida Bharat Kumar Behera	BDO,Korei ABDO, Korei	9437675433 8328993183
40	Sri Rabindra Kumar Pradhan Sri Ranjan Ku,mar Behera	BDO, Barchana ABDO, Barchana	9861760002 9439603229
41	Sallaluddin Khan	CSO,Jajpur	9438409412
42	Dr. Padmanava Behera	CDVO,Jajpur	9437214246
43	Kamal Lochan Nayak	CDAO,Jajpur	8249144193
44	Shibasis Maharana	CDM &PHO,Jajpur	9439992257
45	Suryamani Maharana	Asst. Director,Horticultur e,Jajpur	9437594824
46	Ranjan Kumar Giri	Dist.Education Officer,Jajpur	9439261878
47	Ranjan Kumar Giri	Dist.Project Cordinator (DPC-SSA),Jajpur	9439261878
48	Pramod Kumar Rout	Dist. Fisheries Officer,Jajpur	9556484599
49	A. Usharani	DSWO, Jajpur	9437339889
50	Subas Chandra Samal	ADSWO,Jajpur	9437876705

51	Sangram Keshari Beura	SSSO, Jajpur	9938831413
52	Shefali Swagatika	DPC, Mission Shakti	6370781591
53	Rabindra Nath Behera	DSSO, Jajpur	9437622767
54	Niranjana Kar	DCPO, Jajpur	9437297722
55	Nilakantha Pradhan	RTO, Jajpur	7008859316
56	Sambit Kumar	RTO, Chandikhol	9437506686
57	Sudhansu Sekhar Satapathy	DIO (NIC)	9437181729
58	P. Soren	Asst. Fire Officer, Jajpur	7077967233
59	Daitari Nayak	Station Officer, Dasarathpur	8895932933
60	Ramkanra Mallik	Station Officer, Chandikhole	7978840523
61	Udhav Kumar Sahoo	Station Officer, Dharmasala	9777270403
62	Provakar Sahu	Station Officer, Vyasagar MPL	7978876350
63	Kasinath Marndi	Station Officer, Binjharpur	8249163820
64	Jagannath Panda	Station Officer, Rasulpur	7751963777
65	Tikendra Kumar Singh	Station Officer, Baitarani Road	8249322709
66	Ajit Rout	Station Officer, Bari	9438701194
67	Srikanta Kumar Dhira	Station Officer, Sukinda	9337877939
68	Bhagaban Nayak	Station Officer, Baruan	9337632491

69	Dasarathi Nayak	Station Officer, Danagadi	8637292897
70	Suryamani Pattajoshi	Executive Officer, Jajpur Municipality	9437338364
71	Bikram Kumar Mallick	Executive Officer, Vyasagar, Municipality	7008515018