HEAT WAVE ACTION PLAN 2024



DISTRICT SAMBA

JAMMU AND KASHMIR

Prepared By:

Manik Salgotra (Jr. Consultant)



PREFACE





The Heat Wave Action Plan has been prepared as there is continuous increase of heat in the month of March to June over the past several years. The District Heat Wave Action Plan, which shall consist of mapping of Heat Wave Preparedness in the district, measures to mitigate it and define the administrative framework for coordination and dissemination of such information to the general public. Samba District has embarked on the path of preparing and publishing a comprehensive Heat Wave Action Plan that shall address all the concerns of Heat Wave. Samba District has been hit by heat wave during March to June over the years. In this context, a dedicated effort has been made by the DDMA, Samba District to prepare a comprehensive Heat Wave Action Plan for the year 2024 under the stewardship of District Administration & UTDMA (Jammu and Kashmir Union Territory Disaster Management Authority). I sincerely wish that this Heat Wave Action Plan for the year 2024 of Samba will assist the Heat Wave Mitigation efforts of the district as a great deal and subsequently reduce the loss of life due to this disaster.

We are thankful to all the institutions and persons who have provided us the vital information in process of making the Plan.

Mr. Abhishek Sharma, IAS

DEPUTY COMISSIONER

SAMBA

SAMBA

CONTENTS

Sr. No.	Chapter Details	Specifications	Page No.
1.	CHAPTER 1	INTRODUCTION	4-5
2.	CHAPTER 02	SAMBA DISTRICT PROFILE	6-12
3.	CHAPTER 03	PREPARING A HEAT WAVE ACTION PLAN	13-14
4.	CHAPTER 04	EARLY WARNINGS AND COMMUNICATIONS	15-17
5.	CHAPTER 05	HEAT WAVE MECHANISIM AND DEALING WITH ILLNESS	18-22
6.	CHAPTER 06	ROLES AND RESPONSIBILITIES	23-29
7.	CHAPTER 07	TASK FORCES	30-35

CHAPTER 01

INTRODUCTION

India, with approximately 1.32 billion people is the second most populous country in the world with considerably high levels of population density. India is among the worst disaster prone countries of the world. As per 2011 census, 31% of India's population live in urban areas and 69% live in rural areas. The trend shows that the number of persons living in urban areas will continue to grow at a faster rate than the population in the rural areas due to migration and increasing urbanization. The World Meteorological Organization century, this is directly affecting the communities; (WMO) statements on global climate during 2011 and 2012 indicate that the global temperatures are continuing to increase. Heat -waves are projected to increase in number, intensity and duration over the most land area in the 21st undermining their livelihoods through gradual, insidious changes in temperature and rainfall patterns, and resulting in increased frequency and intensity of hazards such as floods, cyclones, droughts, unseasonal rains and hailstorms, causing extensive damage to crops and agro-rural economy. Heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the pre-monsoon (April to June) summer season. Heat -waves typically occur between March to June, and in some rare cases even extend till July. Heat waves are more frequent over the Indo-Gangetic plains of India. On an average, 5-6 heat wave events occur every year over the northern parts of the country. The most notable amongst the recent ones are Hyderabad (Andhra Pradesh) 46 °C, Khammam 48 °C, Jharsuguda (Odisha) 45.4°C, Bhubaneshwar (Odisha) 44°C, Allahabad (Uttar Pradesh) 47.8°C, Delhi 46.4°C, Jashpur (Chattisgarh) 44.5°C, Kolkatta (West Bengal) 44.5°C, Gaya (Bihar) 46.3°C, Nagpur (Vidarbha region in Maharashtra) 47.1°C, Kalburgi (Karnataka) 44.1°C and Churu (Rajasthan) 48.0°C in 2015. The extreme temperatures combined with high humidity and resultant atmospheric conditions adversely affect people living in these regions leading to physiological stress, sometimes even death. This unusual and uncomfortable hot weather can impact human and animal health and also cause major disruption in community infrastructure such as power supply, public transport and other essential services.

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

1.1 INTRODUCTION TO HEAT WAVE

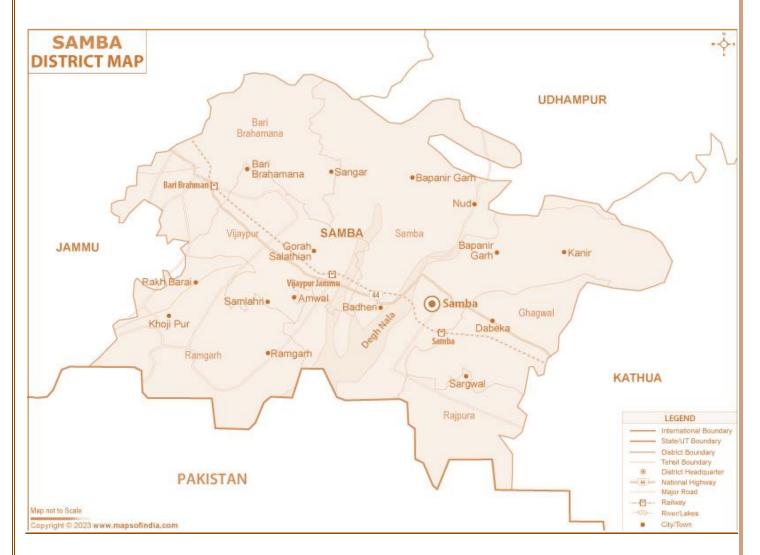
Heat-wave is a condition of atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Heat-wave is defined as the condition where maximum temperature at a grid point is 3°C or more than the normal temperature, consecutively for 3 days or more. World Meteorological Organization 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. If the maximum temperature of any place continues to be more than 45°C consecutively for two days, it is called a heat wave condition. There will be no harm to the human body if the environmental temperature remains at 37°C. Whenever the environmental temperature increases above 37°C, the human body starts gaining heat from the atmosphere. If humidity is high, a person can suffer from heat stress disorders even with the temperature at 37°C or 38°C. To calculate the effect of humidity we can use Heat Index Values. The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature. As an example, if the air temperature is 34°C and the relative humidity is 75%, the heat indexhow hot it feel is 49°C. The same effect is reached at just 31°C when the relative humidity is 100 %. The temperature vs humidity chart is placed and the temperature actually felt.

The Indian Meteorological Department (IMD) has given the following criteria for Heat Waves:

- Heat Wave need not be considered till maximum temperature of a station reaches at least 40°C for Plains and atleast 30°C for Hilly regions
- When normal maximum temperature of a station is less than or equal to 40°C Heat Wave Departure from normal is 5°C to 6°C Severe Heat Wave Departure from normal is 7°C or more
- When normal maximum temperature of a station is more than 40°C Heat Wave Departure from normal is 4°C to 5°C Severe Heat Wave Departure from normal is 6°C or more
- When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared. Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.

CHAPTER – 2

SAMBA DISTRICT PROFILE



Samba town is situated on the foothills of Shivalik Hills alongside the National Highway at 384 meters (1259 feet) above sea level, on the bank of river Basantar at a distance of forty Kilometers from Jammu city. District Samba is bound by District Udhampur in the North, District Kathua in the east, Tehsil Jammu and Bishnah of District Jammu in the west, while on the southern side, it has a 55.5 KM long International Border with Pakistan. About two third of the area of District Samba is rain fed. The area on the southern side the National Highway is irrigated through Ravi Tawi Irrigation Canal network and contributes towards cereal crop production and vegetable cultivation. Two Industrial Growth Centres-one at Bari Brahmana and one at Samba-make the District, the most industrialized district in the state with Industrial Estate Bari Brahmana housing around 250 units industrial units with a total investment of Rs. 1750 crores and Industrial Growth Centre, Samba housing 242(Phase I& II) industrial units with an investment of Rs.684.79 Crores. The Industrial Growth Centre Samba is established over an area of 3904 Kanals 18 Marlas with another phase coming up over 2763 Kanals 2 Marlas. The climate of the District, being located in the sub tropical zone, is hot and dry

in summer and cold in winter. Due to its existence in the foothills of the Shivaliks nights are bit cooler than that of neighbouring areas of Punjab. The temperature ranges between 6 degree Celsius and 47 degree Celsius. Worth mention are the two important rivers of the District namely, Basanter and Devak or Devika. Basanter, on the banks of which Samba town is located is a tributary of River Ravi and is famous for the Battle of Basanater, fought between India & Pakistan in 1971. Devak, a tributary of Ujh River (Ravi river basin) has the Vijaypur town and the famous pilgrimage sites Utterbehni and Purmandal situtated on its banks. It is also called "Gupta Ganga" for its unique feature of flowing under the river bed except in monsoons when it is in its full flow.

It is said that Samba was principally established somewhere in 1400 A.D. As per folklore, **Malh Dev**, the younger son of Rai Saidu of Lakhanpur was the founder of Samba, who married into the family of Ghotar a local tribesman. After his marriage he stayed at Samba and made himself the master of the tract with Samba as its capital. Samba ultimately came under the supremacy of Jammu, during the period of **Hari Dev** in 1816 A.D. In 1822, Suchet Singh younger brother of Raja Gulab Singh was made the Raja of Bandralta and Samba.

Historically, Samba has been known for its 22 Mandies which were established by **Raja Suchet Singh** to whom the District also owes the famous Samba fort. In 1846 A.D it was annexed to J&K by Maharaja Gulab Singh making it an integral part of the state.

As a District, Samba came into existence vide Government order No. 1345 GAD of 2006 dated 27.10.2006 with only one Tehsil and 382 villages. As per the latest SRO No. 444 dated 21.10.2014 the district comprises of **381** villages. These villages have been organized into **6** Tehsils, **55** Patwar Halquas and **101** Panchayats. Besides this, four urban towns viz. Samba, Vijaypur, Ramgarh and Bari Brahmana are also part of this District.

Famous as land of Rajput warriors, the district has produced many gallant soldiers including the recipient of the first gallantry award of Independent India **Brigadier Rajinder Singh, MVC**. Samba is also famous for traditional Calico Printing, where local dyes and wooden blocks are used for block printing of weaved cotton fabrics (bed sheets). It is for this reason that it is also known as **'City of Sheets**'.

2.1 DETAILS OF BLOCKS OF SAMBA

The details of Blocks of the Samba District are furnished:

List of blocks in Samba District

SI. No.	Name of the Blocks	Area (ha.)
1	Samba	34826.47
2	Bari Brahmana	14827.43
3	Ghagwal	8780.54
4	Rajpura	5031.80

DIOTOIOT	PICACTER	MANAGEMENT	ALITHODITY	
INCIDIT		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	VIII PUDITA	

5	Ramgarh	16016.47
	G	
6	Vijaypur	10042.64
· ·	o Jaypa.	200 1210 1

2.2 CLIMATE & GEOGRAPHY OF DISTRICT SAMBA

Samba town is situated on range of Shivalik hills alongside the National Highway 1-A on the bank river Basantar at a distance of forty Kms from Jammu city. Tehsil Samba is bounded by District Udhampur in the North, District Kathua in the East, Tehsils Jammu and Bishnah of District Jammu in the West, while on the southern side it has International Border with Pakistan. About two third of the area of Tehsil Samba is Kandi & rain fed. The area on southern side downside the National highway is irrigated through Ravi Tawi Irrigation canal network and contributing towards major cereals crop and vegetables Cultivation as special focus has been assigned by the govt. of India, Ministry of water resources through Command Area Development Department. A modern industrial complex is established on the bank of river Basantar of Samba Named as industrial Growth Centre. A number of small and medium industrial units have been established and have provided job Opportunities not only to the educated unemployed youths, but also to the laborers, skilled, and un-skilled by stating their own ventures in the private sector. To protect the traditional art of the area, the Government has established a Handloom Development Project by SICOP at Samba and is providing employment opportunities to a large number of traditional weavers of Samba town and they are earning their livelihood by way of weaving of clothes for the project. Samba is also famous in traditional Calico Printing, where local made dyes are used for printing locally weaved cotton fabric. Samba district has three religious tourism spots viz Mansar. Purmandal and Utterbani.

The brief of which is discussed as under:--

- *Mansar Lake is situated on the Samba Udhampur Road at a distance of twenty two KMs from Samba. The Mansar Lake is Surronded by small hills with different Hindu God and Goddesses Temples and also attracts a large number of tourists as well as religious pilgrims in the area .A tourist complex comprising five tourist huts and room situated on the bank of the Lake provides accommodation to the tourist/visitors. The state government has also established development authority known as Surinsar Mansar Development Authority.
- *Purmandal is a religious place situated at a distance of thirty nine Kms from ammu and also connected with Samba Purmandal Utterbani Vijaypur Road. Purmandal is known as "Chotta Kashi" having old Shiva temples which has significant religious importance and surrounded by the Shivalik Hills that posses a natural beauty and Utterbehni is another religious place situated on the bank of legendary Devika and is a heavy centuries old temples Located at a distance of five kms from Purmandal.
- *Climate of the district being sub tropical zone is hot dry in summer and cool in winter. Being in the foot hills of the mountains nights are bit cooler than that of neighbouring areas of Punjab. The temperature ranges between 6 degree Celsius and 47 degree Celsius.

The general climatic condition of Samba district is hot and dry in summer and cold in winter. As because of presence of mountains the temperature falls in night than to the Punjab. The climate in the districts of Jammu division sub-humid to sub-tropical. The climate of the plain region and Middle Himalayas including the Pir Panjal is characterized by a rhythm of seasons which is caused by the reversal of winds in the form of southwest and north-east monsoons. The reversal of pressure takes place regularly twice a year. This region has a sub-tropical climate with a hot and dry climate in summer and a cold climate in winter. It lies in the northern hemisphere above the tropic of Cancer. The Minimum and Maximum temperature of the district varies between 4*C to 47*C and the monsoon starts from the beginning of

July to the first week of September. From October to June the precipitation and temperature patterns resemble closely the valley temperature zones.

SAMBA DISTRICT MAX. AND MIN. TEMPERATURE 2023,

S. NO.	MONTH	MIN TEMP.	MAX TEMP.
1	March	12*C	30*C
2	April	14*C	39*C
3	May	18*C	43*C
4	June	19*C	41*C

MONTH (MARCH TO JUNE)

SOURCE: IMD

SAMBA DISTRICT PREDICTED MAX. AND MIN. TEMPERATURE 2024,

S. NO.	MONTH	MIN TEMP.	MAX TEMP.
1	March	6*C	32*C
2	April	13*C	34*C
3	May	17*C	37*C
4	June	18*C	41*C

MONTH (MARCH TO JUNE)

SOURCE: ACCUWEATHER

2.3 HOTSPOTS DURING HEATWAVE

- TEHSIL SAMBA
- TEHSIL BARI-BRAHMANA

As the max recorded temp is 45C - 46C in both the tehsils being industry areas

2.4 HEALTH DEPARTMENT

Similarly, the chief Medical officer submitted a list of officers/officials of his department working at different locations. Whenever situation arises, he will be position to dispatch reasonable number of doctors, Para-medical staff, medicines and other equipment to the site of occurrence of disasters whether it is earthquake or any natural calamity e.g flood. Cloudburst, drought etc. he is further directed .He should have sufficient medicines in stock which should be available all the time so that he has not to rush to market for purchase Lifesaving drugs should be utilized and replenished on and on.

- In hours of emergency medical team to ensure that adequate staff available at all time to handle emergency causalities.
- Providing assistance of district authorities for taking action against hoarders black market and those found manipulating relief materials.
- Coordination with Military services personal in the area being carried out under relief operation.
- Providing assistance to the community in organized emergency transport or injured.

2.5 MEDICAL RESOURCES

DISTRICT HOSPITAL SAMBA

Location: Located on Jammu Pathankot Highway at around 40 kms from Jammu catering for the population of Samba town and the adjoining area of Ghagwal, Sumb, Mansar, Bainglad and area of Vijaypur, Ramgarh as well as of Purmandal.

Present overall health sector in District Samba

		Regular	NHM
1.	No. of Doctors	= 104	34
2.	No. of Pharmacist	= 64	15
3.	No. of Staff Nurse	= 20	46
4.	Other Staff	= 294	245
5.	No of beds for M/F	= 301	
6.	No. of Ambulance	= 11	
7.	Emergency service	= Yes	
8.	Blood bank available	= Yes (Di	strict Hospital Samba)
9.	Operation theatre available	= 3 (D.H.:	Samba, CHC Ramgarh & A.H Gagwal)

2.6 FACILITIES AVAILABLE

- a) Emergency 24x7
- b) O.P.D All Specialities :- Medicine, Surgery, Gynae., Paediatrics, Eye, E.N.T, Orthopaedic Surgeon, Dental, Homoeopathic and neuropsychiatry.
- c) I.P.D Facility wherever required.
- d) Laboratory: Biochemistry and hematology except FNAC and PBF.
- e) X-Ray Facilities: Round the clock.
- f) Ultrasound Facilities.
- g) CT Scan Facilities.
- h) Immunization: All Days.
- i) Free Services to Mother and Newborn under JSSK, Including Free medicines, Diet and Transportation.
- j) SNCU Services.
- k) Ambulances Services round the clock.

2.7 FACILITIES AVAILABLE (EDUCATION DEPARTMENT)

- 1. Health Labs in all Schools
- 2. B.P. Beds
- 3. First Aid Kits
- 4. Stock of O.R.S / GLUCOSE
- 5. A.C. Room

2.8 FACILITIES AVAILABLE (FIRE DEPARTMENT)

In Samba District , there are 20 house of fire fighting i.e. Ghagwal , Vijaypur , Ramgarh , Bari- Brahmana and Samba.

FIRE FIGHTING EQIUPMENTS:-

- 1. Deliver Hoses.
- 2. Different type of branches.
- 3. Foam Branches
- 4. Share cutters.
- 5. Door Breakers
- 6. Hammers

- 7. Water Mist Pack
- 8. Lighting Towers
- 9. Extension Ladders
- 10. Ceiling Hooks
- 11. PRT Kits
- 12. Bullet Chain Saw
- 13. Spades
- 14. Large Axe
- 15. Fire Beaters
- 16. Crow Bars
- 17. Search Lights
- 18. Ropes
- 19. Pick Axe
- 20. Otger small gear used for fire fighting

Fire Station Samba:

- Jumbo Water Tender = 02 Nos. (Having 7500 ltrs. Water tank capacity each)
- Multipurpose Fire Tender + 01 Nos. (Having 5000 ltrs. Water & 600 ltrs. Foam cap)
- Quick Response Team = 01 No. (Having 300 ltrs. Water & 50 ltrs. Foam Cap)
- Portable Fire Pump = 02 NOs.
- Manpower = 18 personnel including incharge of the station.

CHAPTER 03

PREPARING A HEAT WAVE ACTION PLAN

3.1 HEAT-WAVE AND DISASTER MANAGEMENT:

Section 2 (d) of the Disaster Management Act 2005 defines "disaster" as a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man- made causes, and is of such a magnitude to be beyond the coping capacity of the affected area. Heat-wave has not been notified as a disaster by Government of India yet. But the data of the casualties it has been causing suggests that it is time that the various stakeholders realize the damaging repercussions that heat wave can cause to the health of humans and animals. Heat wave is not notified in the list of twelve disasters eligible for relief under National/ State Disaster Response Fund norms. However, a State Government may use up to 10 per cent of the funds available under the SDRF for providing immediate relief to the victims of natural disasters that they consider being "disasters" within the local context in the State and which are not included in the notified list of disasters of the Ministry of Home Affairs subject to the condition that the State Government has listed the State specific natural disasters and notified clear and transparent norms and guidelines for such disasters with the approval of the State Authority.

3.2 STRATEGIES TO IMPLEMENT HEAT WAVE ACTION PLAN

Key strategies on Heat wave plan Implementation:

The heat-wave action plan is intended to mobilize individuals and communities to help protect their neighbors, friends, relatives, and themselves against avoidable health problems during spells of very hot weather. Broadcast media and alerting agencies may also find this plan useful. Severe and extended heat-waves can also cause disruption to general, social and economic services. For this reason, Government agencies will have a critical role to play in preparing and responding to heat-waves at a local level, working closely with health and other related departments on long term strategic plan.

Establish Early Warning System and Inter-Agency Coordination to alert residents on predicted high and extreme temperatures. Who will do what, when, and how is made clear to individuals and units of key departments, especially for health.

Capacity building / training programme for health care professionals at local level to recognize and respond to heat-related illnesses, particularly during extreme heat events. These training programmes should focus on medical officers, paramedical staff and community health staff so that they can effectively prevent and manage heat-related medical issues to reduce mortality and morbidity.

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

- -Talking with their doctor or Health Centre about early signs of heat wave
- -Limiting heavy work during extreme heat -Drinking water

- -Staying out of the sun -Wearing light clothing
- -Checking on neighbors
- -Informing their fellow community members about how to keep cool and protect themselves from heat.

The media plays an essential awareness-building role by sharing news about health threats, and increases public protection by running ads and providing local resources information. While summer is defined as spanning March, April, and May, Gujarat's hottest temperatures can run from March through June, with temperatures generally peaking in May and warm days through November. Across India, higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change; thus the deadly extreme heat events already impacting Samba are expected to increase in intensity, length, and frequency in the coming decade.

Public Awareness and community outreach Disseminating public awareness messages on how to protect against the extreme heat-wave through print, electronic and social media and Information, Education and Communication (IEC) materials such as pamphlets, posters and advertisements and Television Commercials (TVCs) on Do's and Don'ts and treatment measures for heat related illnesses.

Collaboration with non-government and civil society: Collaboration with non-governmental organizations and civil society organizations to improve bus stands, building temporary shelters, wherever necessary, improved water delivery systems in public areas and other innovative measures to tackle Heat wave conditions.

CHAPTER – 4

EARLY WARNINGS AND COMMUNICATIONS

4.1 INTRODUCTION

Early warning system aims to empower individuals and communities to respond promptly and appropriately to hazards, reducing the risk of death, injuries, property loss and damage. To effectively communicate warnings and encourage action, measures should include extending lead time of warning, improving accuracy, increasing demand for probabilistic forecasts, Improving communication using new technologies, targeting services to relevant users (right information to right people at right time at the place) and understanding warning messages.

4.1.1 Indicators of heat-wave:

Early warning systems can enhance the preparedness of decision-makers and their readiness to harness favorable weather conditions. Early warning systems for natural hazards is based both on sound scientific and technical knowledge. In response to the devastating mortality and morbidity of recent heat-wave events, many countries have introduced heat- wave early warning systems. Heatwave early warnings are designed to reduce the avoidable human health consequences from heatwaves through timely notification of prevention measures to vulnerable populations.

4.1.2 Forecast and Issuance of Heat Alert or Heat Warning:

India Meteorological Department (IMD):

The IMD is mandated to meteorological observations and provides current and forecast meteorological information for optimum operation of weather-sensitive activities. It provides warning against severe weather phenomena like tropical cyclones, dust storms, heavy rains and snow, cold and heat waves etc. It also provides real time data and weather prediction of maximum temperature, Heatwave warning, Heat-alert for the vulnerable cities/rural area of the severity and frequency. IMD provides following range and validity of time forecast

4.2 WARNING DISSEMINATION AND ADMINISTRATION

STATE CONTROL ROOM

DIVISIONAL COMMISSIONERS, DISTRICT COMMISIONERS

ADC/ADM , SSP , SP , SDMs ,TEHSILDARS , ALL LINE DEPARTMENT

DEPARTMENT OF PUBLIC INFORMATION AND PUBLIC RELATIONS

PUBLIC THROUGH PRINT, SOCIAL AND ELECTRONIC MEDIA

IMD issues heat wave forecast and is disseminated to Divisional Commissioners, District Commissioners and all other concerned authorities through email by State Control Room for alertness and preparedness for action. The warning is further transmitted to SSP, ADC/ADM , SP, SDMs, Tehsildars and all the heads of line departments through official letter , EOCs , mass text and image message in the WhatsApp group. Department of Public Information and Public Relation disseminate of heat alerts/advisories, DOs and DONTs to various district as well as local level newspapers and other electronic media.

4.3 Identification of Colour Signals for Heat Alert:

IMD currently follows a single system of issuing warnings for the entire country through a colour code system as given below. This system advises on the severity of an expected heat hazard. However, threshold assessments carried out in different parts of the country tells us that there are different cut-off points that determine the warning signals appropriate for a specific state/region. The States should, therefore, carry out their respective threshold assessments for mortality and provide the information to IMD so that it can provide specific warning alerts to those States.

4.4 Heat Alert Warning System:

Early warning systems can enhance the preparedness of decision-makers and their readiness to harness favourable weather conditions. Early warning systems for natural hazards is based both on sound scientific and technical knowledge. Accurate and timely alert systems are essential. Collaboration with India Meteorological Department (IMD) is needed to develop heat warning systems (HWS), trigger a warning, determine the threshold for action and communicate the risks. It also provides real-time data and weather prediction of maximum temperature. The IMD issues a weekly bulletin with the Current Temperature Status and Warning for next five days.

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

CHAPTER 05

HEAT WAVE MECHANISIM AND DEALING WITH ILLNESS

5.1 DEALING WITH HEAT RELATED ILLNESS

5.1.1 Identification of Heat-Wave illness and recordings of casualties:

In the past, when the Government declared ex-gratia compensation for heat-wave affected families, it was observed that some people who were aware of the provision of direct cash relief reported natural deaths as the heat wave deaths. In the event of false reporting, the following procedures can be used for verifying and ascertaining the real cause of death.

- Recorded maximum temperature on the particular time periods and place.
- Recording incidents, panchnama or others witnesses, evidence or verbal autopsy.
- Postmortem/medical checkup report with causes.
- Local authority or Local body enquiry/verification report.

5.2 PREVENTATION OF HEAT RELATED ILLNESS:

Heat-related illness is largely avoidable. The most crucial point of intervention concerns the use of appropriate prevention strategies by susceptible individuals. 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.

5.3 ACCLIMATIZATION:

People at risk are those who have come from a cooler climate to a hot climate. When such visitors arrive during the heat wave season, they should be advised not to move out in open for a period of one week till the body is acclimatized to heat and should drink plenty of water. Acclimatization is achieved by gradual exposure to the hot environment during heat wave.

Table No 03: Symptoms and First Aid for various Heat Disorders

	Heat Disorder	Symptoms	First Aid
	Sunburn	Skin redness and pain, possible swelling, blisters, fever, headaches.	Take a shower, using soap, to remove oils that may block pores preventing th body from cooling naturally. If blisters occur, apply dry, sterile dressings and get Medical attention.
	Heat Cramps	Painful spasms usually in leg and abdominal muscles or extremities. Heavy sweating.	Move to cool or shaded place. Apply firm pressure on cramping muscles or gentle massage to relieve spasm. Give sips of water. If nausea occurs, discontinue.
	Heat Exhaustion	Heavy sweating, weakness, skin cold, pale, headache and clammy. Weak pulse. Normal temperature possible. Fainting, vomiting	Clothing. Apply cool, wet cloth. Fan or move victim to air-conditioned place. Give sips of water slowly and If nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention. Or call 108 and 102 for Ambulance
Н	leat Stroke (Sun Stroke)	High body temperature (106+F). Hot, dry skin. Rapid, strong pulse. Possible unconsciousness. Victim will likely not sweat.	Heat stroke is a severe medical emergency. Call 108 and 102 for Ambulance for emergency medical Services or takes 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.

The past few summers have shown that the risk of heat illness from high temperatures is one of the most serious challenges to the safety and health of peoples. This action plan guide you plan how to prevent heat illness among you and provide training to our citizens.

Heat illness can be a matter of life and death. Workers die from heat stroke every summer and every death is preventable.

- When heat stroke doesn't kill immediately, it can shut down major body organs causing acute heart, liver, kidney and muscle damage, nervous system problems, and blood disorders.
- Having a serious injury or death occur
- People suffering from heat exhaustion are at greater risk for accidents, since they are less alert and can be confused.

5.4 TYPE OF HEAT ILLNESS:

There are mainly three categories of heat injuries:-

- Heat Cramps.
- Heat Exhaustion.
- Heat Stroke.

Causes:

- Hot weather.
- Humid weather.
- Sun you absorb more heat if you are in the sun.
- Heat our bodies generate when we are physically active and doing hard work
- Too little fluid.
- Too few electrolytes (Salt or minerals)

5.5 HEAT CRAMPS

Heat cramps are painful muscle spasms most often caused by loss of electrolytes from physical exertion in extreme heat, or prolonged exposure to heat without adequate hydration. Muscles most often affected are those in the lower legs, arms, abdominal wall, and back.

Prevention:

- Acclimate prior to strenuous activity.
- Wear appropriate clothing.
- Hydrate and maintaining diet rich in sodium.

Signs and symptoms:

- Muscle spasms
- Thirst and Sweating.
- Fatigue & Dizziness.
- Treatment:
- Move people to a cool or shaded area to rest.
- Loosen the soldiers clothing
- Hydrate people orally
- Ice massages affected muscle.

5.6 HEAT EXHAUSTION

Heat exhaustion is caused by loss electrolytes without proper fluid replacement. Heat exhaustion can affect even those who are not identified as having risk factors for heat injury. Otherwise fit individuals can be affected when involved in strenuous physical activity in a hot climate, especially if they haven't been acclimated.

Prevention:

- Acclimate prior to strenuous activity.
- Wear of appropriate clothing.
- Hydrate and maintaining diet rich in sodium.
- Following work / rest cycle.
- Use shaded areas when available.

Signs and symptoms:

- Excessive sweating & fatigue.
- Headache & dizziness.
- Loss of appetite & cramping.
- Nausea and vomiting.
- Chills
- Tingling in hands or feet
- Altered mental status.

Treatment:

- Move peoples to a cool or shaded area to rest.
- Loosen the peoples clothing.
- Hydrate people orally with cool water.
- Elevate the legs.

5.7 HEAT STROKE

Heat stroke (also known as hyperthermia) is the most severe from of the heat related illnesses.

There are two forms of heatstroke.

- 1. Exertional heatstroke
- 2. Non-exertional heat stroke.

Prevention:

- Acclimate prior to strenuous activity.
- Wear appropriate clothing.
- Hydrate.
- Use work/ rest cycle.

Signs and symptoms:

- Weakness.
- Headache & dizziness.
- Loss of appetite.
- Cramping & nausea.
- Seizures
- Weak pulse.
- Tachycardia & altered mental status.

Treatment:

- Heatstroke is a medical emergency and can be fatal. Peoples should be medevacked to the nearest hospital.
- Position the victim in the shade and begin cooling immediately.
- Elevate the legs.
- Massage the limbs to promote blood flow.

Cooling Techniques for Heat Injury

Evaporative Cooling

- Remove excess clothing
- Mist the skin constantly and fan.
- Complications: None.

Ice Sheets

- Remove excess clothing
- Wrap soldier in cold wet sheet. Include the head.
- Monitor the soldier closely.
- Complications: discomfort or shivering, hypothermia.

Strategic Ice Packing

- Remove excess clothing
- Place ice packs in the patient's groin, in the axillae, and around the anterior neck.
- Complications: discomfort or shivering.

CHAPTER 6

ROLES & RESPONSIBILITIES DDMA

6.1 ADVISORIES FOR HEAT WAVE

Sr.No.	Di	District Agencies and their Role/Responsibilities		
31.110.	Agencies	Role/Responsibilities		
1.	District Admin./DDMA/ ULBs/PRIs	 Real-time surveillance and evaluation of weather situation. To disseminate the information received from IMD to the public atlarge. Disseminate the heat-health warning, determine the threshold for action and communicate the risks. Prepare SoP for heat wave response based on forecast and Weather Prediction Coordination among all stakeholders with clearly defined roles and responsibilities. Flexible timing of market and offices. Collaboration with non-governmentand civil society. Special care for vulnerable groups-children, disabled, women and old aged. 		
2.	PRIs/ULBs	 Appointment of Nodal Officer ateach level (district, tehsil and block, department etc.) Implementation of Heat Wave Action Plan. Heat wave should be included inannual disaster training calendar. Open parks/open areas during daytime for providing spaces with shade. Sprinkling of water on roads. Construct shelters, sheds at public places, provide access to public parks during heat wave season. Promote cool roofs initiative such as paint roof white, create greenroofs and walls, and plant trees in neighborhood to keep them cool. Inter district collaboration for sharing experiences and data. Reviewing preparedness & mitigation measures. 		
3.	Department of Health	 Prepare hospital preparedness plans Dissemination of heat wave health plan by organizing awarenesscampaigns. Undertake orientation/training and issue alerts to village 		

		DISTRICT DISASTER MANAGEMENT AUTHORITY, SAMBA
		 level functionaries. Adopt heat focused examination procedures at local hospitals. Deploy additional staff to take care of persons affected due to sunstroke. Activate Emergency services and keep sufficient stock of ORS and glucose etc. in all hospitals or dispensaries. Adopt a uniform process for registration of causalities or deaths due to heat wave.
4.	Police Department	 Ensure shade for on duty traffic police, as they are more exposed to heat wave and distribution of cool jackets for traffic police personals.
5.	Department of PHE	 Ensure drinking water facilities at all common places. Identify vulnerable places and ensure drinking water facilities. Repair/maintenance of mechanical faults of tube wells, ponds at priority basis to ensure water storage. Suitable arrangement for drinking water supply and promptly respondto water scarcity.
6.	Department of School Education/Higher Education	 Change in school timings from 9AM to 3PM during peak summers and 10AM To 4PM during heat wave. Rescheduling of school timing and vacation as per heat wave situation. Ensuring cool places for all educational institutions, and availability of water facilities. Ensure that students avoid outdoor physical activities during the summer in schools. Heat wave management should be added in school curriculum to sensitize school children and local people. Encourage research on heat wave related issue through universities/colleges.
7.	Department of PWD/ Roads & Building	 Long term planning for heatresilience infrastructure. Promote cool roofs technology and use other similar heat reducing technology. Ensure implementation of mixed-use planning adopted in heat wave affected cities/towns. Heat appropriate planning of new buildings (consideration, e.g., in architecture, width/height ratio,

		DISTRICT DISASTER MANAGEMENT AUTHORITY , SAMBA
		 street development, orientation and site) in urban and rural areas. Ensure capacity building of structural engineers, civil engineers and architects for construction of green buildings, maintenance and fire safety of the structures. Ensure to construction of green buildings, environment and building code related to heat wave risk mitigation. Ensure implementations of latest Building Code for the construction.
8.	Department of Department of Information and Public Relation	 IEC Campaign to create awareness through print media, electronic media, social media, etc. Display board with color coding for heat wave alert. Display Do's and Don'ts in the Public Areas, Hospitals, Parks, etc. Develop of mobile application for faster spread of heat related issues, alertness, space for shelters and drinking water.
9.	Department of Forest	 Ensure proper afforestation at public places. Continuous watch in the forest area to avoid forest fires. Provide safety drinking water and shade in forest areas. Maintain water bodies/ponds in the forest area for wild animals and birds.
10.	Department of Tourism	 Ensure proper registration of tourists who are visiting the State/UT/District. Publicize advisories for tourists on Heat Wave conditions in the State/UT/District. Build temporary shaded areas and ensure availability of safe drinking water for pilgrims at religious places.
11.	Department of Railways	 Repair/maintenance of mechanical/electrical system on priority basisincluding fan and cooling system. Ensure drinking water facilities in trains and railway stations.
12.	Department of Transportation	 To ensure shelter/sheds at bus stops, drinking water facilities at busstops. Enable better emergency transport system for affected people to health care facilities with adequate essential

		DISTRICT DISASTER MANAGEMENT AUTHORITY, SAMBA
		equipments.
13.	Department of PDD	 Ensure repair & maintenance work for uninterrupted power supply before and during the summer. Re-scheduling load shedding.
14.	Department of Animal Husbandry	 Follow the advisory on heat wave. Shelter for livestock and animal husbandry should be maintained. Pre-positioning of adequate veterinary medicines and supplies. Update contingency plan regarding provision of drinking water for animals. Awareness on the impact of heat on animals and coping mechanisms.
15.	Department of Labour/Social Welfare	 Providing Kits including towel, water bottles and all necessities to labourers during peak summers/heat wave and giving them break during peak hours. Training with construction/industries/commercial entities regarding Heat Wave related illness. Implement the directions for heat wave season. Re-scheduling of working hours for employees in different sectors. Ensure drinking water facilities at work places. Coordinate with Health Department and ensure regular health check-up of the workers and provide emergency ice packs and heat illness prevention material to construction workers.
16.	Electoral Office Samba	 Election campaigns, rallies, and the election process itself should be planned with the heat impacts factored in. The IMD will be disseminating heatwave forecasts, which should be watched for, on a daily basis. Ensuring that election rallies, public gatherings, polling stations, and any other election-related events are equipped with cooling stations, ample shade, water stations, and medical facilities is critical for protecting the electorate. Specific recommendations and awareness campaigns are needed to emphasise the importance of hydration and the signs of heat-related illnesses need to be made by ECI

across every region."

6.2 NODAL OFFICERS – ROLES AND RESPONSILIBITIES

S.no	Name of Nodal Officer Sh/Smt.	Designation	Place of Posting	District / Block Level	Mob No.
1.	Dr. Syed Namaz Shah, JKAS	HQA (Tehsildar)	Districrt Hqr. Samba	District Level	9419708948
2.	Karanjeet Singh, JKAS	Tehsildar	Rajpura	Block Level	9149409007
3.	Sheetal, JKAS	CDPO	Samba	Block Level	9149593440
4.	Abhilove Mahajan, JKAS	BDO	Vijaypur	Block Level	9796603989
5.	Aparajita Aryan, JKAS	BDO	Bari Brahmana	Block Level	7780956836
6.	Akansha Gupta , JKAS	BDO	Purmandal	Block Level	7006106660
7.	Kunal Singh Manhas, JKAS	BDO	Nud	Block Level	7006786736
8.	Sunil Sharma	BDO	Sumb	Block Level	9419833334
9.	Abdul Rashid Khawaja	BDO	Ghagwal	Block Level	9419141711
10.	Mukesh Sharma	BDO	Ramgarh	Block Level	7889658617

Roles and Responsibilities:

Pre-Summer

- Designate point of contact for each department.
- Identifies facilitator to coordinate communications and schedule monthly meetings.
- Establishes heat mortality tracking system and updates data sets.
- Establishes heat action web page on web site.
- Facilitates training of school children and school staff.
- Launches heat wave awareness campaigns before on set of summer.
- Creates list of high risk areas of city heat wise.

During heat event:

- Appoints Nodal officer in each department for coordination with District Nodal Officer.
- Coordinates heat action plan activities through Nodal Offices in each department.
- Communicates location of emergency facilities and cooling centers/shaded areas to all stake holders.

Monitors severity of heat alert based on forecast.

Post Summer Evaluation:

Review quantitative and qualitative data for process evaluation and improvements.

Call meeting for annual evaluation of heat plan with key agencies and community partner

6.3 HEAT WAVE DO'S AND DONT'S

Do's and Don'ts

Heat Wave conditions can result in physiological strain, which could even result in death. To minimize the impact during the heat wave and to prevent serious ailment or death because of heat stroke, the following measures are useful:

<u>Do's</u>

Must for All

- Listen to Radio, watch TV, read Newspaper for local weather forecast to know if a heat wave is on the way
- Drink sufficient water and as often as possible, even if not thirsty
- Use ORS, homemade drinks like lassi, unripe mango juice (kachi keri), lemon water, buttermilk, etc. which help to re-hydrate the body
- Wear lightweight, light-colored, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- Cover your head; Use a cloth, hat or umbrella Employers and Workers
- Provide cool drinking water near work place x Caution workers to avoid direct sunlight
- Schedule strenuous jobs to cooler times of the day
- Increasing the frequency and length of rest breaks for outdoor activities.
- Pregnant workers and workers with a medical condition should be given additional attention. Other Precautions
- Stay indoors as much as possible
- Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- Try to remain on lower floors
- Use fans, damp clothing and take bath in cold water frequently.
- While travelling, carry water with you.
- If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs.
- Recognize the signs of heat stroke, heat rash or heat cramps such as weakness, dizziness, headache, nausea, sweating and seizures. If you feel faint or ill, see a doctor immediately.
- Keep animals in shade and give them plenty of water to drink.

Don'ts

- Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- Avoid wearing dark, heavy or tight clothing.
- Avoid strenuous activities when the outside temperature is high.
- Avoid working outside between 12 noon and 3 p.m.
- Do not go out barefoot
- Avoid cooking during peak hours. Open doors and windows to ventilate cooking area adequately.
- Do not leave children or pets in parked vehicles- as they may get affected by Heat Wave
- Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.
- Avoid high-protein food and do not eat stale food.

The best defense against extreme heat is to be prepared, and remember:

Get ready: Take steps now to prepare your home, workplace, and community for preparation and prevention of heat wave.

Get set: Know the symptoms of heat-related illnesses and what to do in an emergency.

Go: Check on those who may need help during an extreme heat event, like children, elderly family members, homebound neighbors, or outdoor workers.

6.4 HEAT WAVE TRAINING

DDMA has proposed two training programs for heat wave awareness.

- The first program aims to educate students and teachers about the risks associated with heat waves and the preventivemeasures to mitigate them. The Jr. Consultant (DDMA) will be the nodal officer for these trainings.SDRF and health departments are expected to cooperate with him in coordinating and executing these training sessions effectively.
- The second program targets local residents and community leaders, intending to raise awareness about heat wave risks and promote proactive measures withinthe community. Through these training initiatives, DDMA endeavors to enhance preparedness and resilience against heat wave events in Samba district.

Proposed Training	Teams Involved	Participants	Date/Month of Training
Awareness about Heat Wave Risks and Prevention for Students	Medical team, SDRF	Students, Teachers	May
Awareness about Heat Wave Risks and Prevention for Locals	Medical team, SDRF	Local Residents, Community Leaders	May

CHAPTER - 7

7.1 TASK FORCES

DISTRICT DISASTER MANAGEMENT UNIT

S.no	Officer	Designation	Tele. Nos.
1.	Deputy Commissioner Samba	Chair man	241143
2.	Addl. Superintendent	Chief Executive Officer	241143
3.	Sr. Superintedent of Police, Samba	Member	246100
4.	Chief Medical officer, Samba	Member	246533
5.	Superintendent Engineer, PWD (R&B) Samba	Member	2471883
6.	Assistant Director CA & PD Samba	Member	9419213441

7.2 SPECIAL SUB-DIVISION COMMITTEE UNDER DISASTER MANAGEMENT ACT

GHAGWAL VIJAYPUR

S.No	Officer	Designation	S.	Officer	Designation
			N		
			0		
1.	SDM, Ghagwal	Chairman	1.	SDM, Vijaypur	Chairman
2.	Tehsildar, Samba	Member	2.	Tehsildar, Vijaypur	Member
3.	XEN, PWD (R&B) Sub.	Member	3.	XEN, flood Control) Sub.	Member
	Division Samba			Division Samba	
4.	XEN, EM&RE Sub	Member	4.	AEE, EM&RE Sub Division	Member
	DivisionSamba			Samba	
5.	AEE, PHE Samba	Member	5.	AEE, PHE Vijaypur	Member
6.	In-charge Fire & Sheep	Member	6.	In-charge Fire & Sheep	Member
	Husbandry, Samba			Husbandry, Samba	
7.	BVO Animal Husbandry	Member	7.	BVO Animal Husbandry	Member
	Samba			Vijaypur	
8.	SDAO, Samba	Member	8.	SDAO, Vijaypur	Member
9.	Block Medical Officer	Member	9.	Block Medical	Member
	Samba			OfficerVijaypur	

The Deputy Commissioner (Chairman) has the information with him relating to the official manpower available with him, of which, he would use of in case of emergency at all

levels and listof such able and healthy officers/ officials has been made so that they can be called and check up on already assigned duties and in case they are to be sent for some kind of training arrangements shall be made. The matter of regular trainings shall be taken up with the Commandant Army, CRPF of Samba district with whom discussions have been made. Such a mechanism will be followed at all levels i.e Tehsil level.

The Additional Commissioner Development, Additional Deputy Commissioner, Additional District Magistrates at Headquarters shall assist the Deputy Commissioner (Chairman) in all such functions and will ensure specific areas oriented duties as assigned to them.

7.3 TEHSIL LEVEL TASK FORCE

S. No.	Tehsil	Name of the Officer	Designation	Role	Contact No.
1.	Samba	Sh. Shabir	Tehsildar Samba	Nodal Officer	99063-31310
	Samba	Sh. Snok Chand	Naib Tehsildar Samba	Member	94199-47070
	Samba	Dr. Suresh Sarmal	BMO Nud	Member	70068-74553
2.	Ramgarh	Mr. Abhimanyu Kalsotra	Tehsildar Ramgarh	Nodal Officer	72909-05276
	Ramgarh	Sh. Raman Kumar	Naib Tehsildar Ramgarh	Member	91495-63429
	Ramgarh	Dr. Lakhwinder Singh	BMO Ramgarh	Member	9419112651
3.	Ghagwal	Sh. Shakil Ahmed	Tehsildar Ghagwal	Nodal Officer	90861-95038
	Ghagwal	Sh. Jagdev Singh	Naib Tehsildar Ghagwal	Member	70064-26496
	Ghagwal	Dr. Lek Raj Attri	CHO Ghagwal	Member	70064-45188
4.	Rajpura	Sh. Karanjeet Singh	Tehsildar Rajpura	Nodal Officer	91494-09007
	Rajpura	Sh. Sansar Singh	Naib Tehsildar Rajpura	Member	95969-55127
5.	Bari-Brahmana	Ms. Punica	Tehsildar Bari- Brahmana	Nodal Officer	80820-20419
	Bari-Brahmana	Sh. Rahul Singh Rana	Naib Tehsildar Bari- Brahmana	Member	70511-18606
	Bari-Brahmana	Dr. Rajkumar Sharma	BMO Purmundal	Member	8899134576
6.	Vijaypur	Sh. Sudesh Kumar	Tehsildar Vijaypur	Nodal Officer	94191-55559
	Vijaypur	Sh. Vikrant Koshal	Naib Tehsildar Vijaypur	Member	98585-69555
		Dr. Lakhwinder	BMO Ramgarh	Member	9419112651

7.4 LIST OF IMPORTANT CONTACTS

S.No.	Name of the officer	Designation	Contact No.
1	Mr. Abhishek Sharma, IAS	Deputy Commissioner, Samba	99065-45614
2	Sh. Suresh Chander Sharma, JKAS	Addl. Deputy Commissioner, Samba	01923-241118
3	Smt. Champa Devi , JKAS	Addl. District Development Commissioner, Samba	9419261318
4	Smt. Kusum Chib, JKAS	Asstt. Commissioner (Rev.), Samba	94191-03859
5	Sh. Vinay Sharma, JKPS	Sr. Suptt. of Police, Samba	94191-19266
6	Sh. Umesh Sharma, JKAS	Sub Divisional Magistrate, Vijaypur	94191-45667
7	Smt. Sunaina Saini, JKAS	Sub Divisional Magistrate, Ghagwal	94192-72743
8	Dr. Syed Namaz Shah, JKAS	Tehsildar Hqa to DC Samba	94197-08948
9	Dr. Vidhi Bhattial	Chief Medical Officer, Samba	94191-19134
10	Sh. Hukam Singh	XEN PHE, Samba	94192-55937
11	Sh. Kewal Krishan	Chief Education Officer, Samba	94192-92050
12	Sh. Pawan Tikoo	XEN PWD, Samba	94191-12832
13	Sh. Mala Ram	District Information Officer, Samba	95492-65527
14	Sh. Sagar Singh	Divisional Forest Officer (T) Samba	70060-46604
15	Sh. Rajesh Raina	District Tourist Officer, Samba/Kathua	99060-45432
16	Sh. Shammi Kumar	Astt. Regional Transport Officer, Samba	94191-97999
17	Er. B.N Bhandari	XEN PDD/JPDCL, Samba	94191-40410
18	Sh. Rahul Dev	Chief Animal Husbandry Officer, Samba	94692-11531
19	Sh. Nawaz Sharief	District Social Welfare Officer, Samba	84928-95562
20	Sh. Amil Khateeb	Asstt. Labour Commissioner, Officer, Samba	95968-35161

7.5 LIST OF PRIVATE RESOURCES

S.NO	NAME OF TENT & LIGHT SHOP	LOCATION	CONTACT NO
1.	Bobby Tent & Light House	Sumb Road Samba	9906015785
2.	Nikkei Choice Tent & Light House	Border Road Samba	9906907407
3.	Vijay Kumar Royal Tent & Light House	NH Samba	9419152657
	RAMO	GARH	
1.	Parveen Kumar Tent & Light House	Main Road Ramgarh	9469152654
2.	Kailas Tent & Light House	Main chownk Ramgarh	9419620294
3.	Subash Fuji Tent & Light House	Main Road Ramgarh	9419120038
	VIJAY	/PUR	
1.	Sonu Shiva Tent & Light House	Main Road Vijaypur	9419277673
2.	Sharma Tent & Light House	Main Chownk Vijaypur	9858587155
3.	Janta Tent & Light House	NH way Vijaypur	9906149443

7.6 NODAL OFFICERS LINE DEPARTMENTS

S.NO.	NAME	DESIGNANTION	ROLE	CONTACT NO
1.	Dr. Sanjeev	Dy Chief Medical	Nodal Officer	7780977108
		Officer, Samba		
2.	Sh. Hukam Singh	XEN PHE, Samba	Nodal Officer	94192-55937
3.	Sh. B.D Sharma	Principal	Nodal Officer	9419231890
		Nandpur/DPO		
4.	Sh. Pawan Tikoo	XEN PWD, Samba	Nodal Officer	94191-12832
5.	Sh. Mala Ram	District Information		95492-65527
		Officer, Samba		
6.	Sh. Sagar Singh	Divisional Forest	Nodal Officer	70060-46604
		Officer (T) Samba		
7.	Sh. Rajesh Raina	District Tourist	Nodal Officer	99060-45432
		Officer,		

	Samba/Kathua		
Sh. Shammi Kumar	Astt. Regional Transport Officer, Samba	Nodal Officer	94191-97999
Er. B.N Bhandari	XEN PDD/JPDCL, Samba	Nodal Officer	94191-40410
Sh. Rahul Dev	Chief Animal Husbandry Officer, Samba	Nodal Officer	94692-11531
Sh. Nawaz Sharief	District Social Welfare Officer, Samba	Nodal Officer	84928-95562
Sh. Amil Khateeb	Asstt. Labour Commissioner, Officer, Samba	Nodal Officer	95968-35161
	Kumar Er. B.N Bhandari Sh. Rahul Dev Sh. Nawaz Sharief	Sh. Shammi Kumar Transport Officer, Samba Er. B.N Bhandari XEN PDD/JPDCL, Samba Sh. Rahul Dev Chief Animal Husbandry Officer, Samba Sh. Nawaz Sharief District Social Welfare Officer, Samba Sh. Amil Khateeb Asstt. Labour Commissioner,	Sh. Shammi Kumar Transport Officer, Samba Er. B.N Bhandari Sh. Rahul Dev Chief Animal Husbandry Officer, Samba Sh. Nawaz Sharief District Social Welfare Officer, Samba Sh. Amil Khateeb Asstt. Labour Commissioner, Nodal Officer Nodal Officer Nodal Officer

7.7 LIST OF COMMUNITY VOLUNTEERS

S.n o	Name of the Voluntee r	Gende r	Qual.	Age	Address	Contact No.
1.	Arjun Singh	Male	12 th	22yrs.	Dhalote, Samba	95965-34139
2.	Ankush Kumar	Male	10 th	27 yrs.	Rakh Kangwala	9622331071
3.	Sachin Kumar	Male	12 th	22 yrs.	Parjani, Samba	60066-34673
4.	Amandeep	Male	10 th	18 yrs.	Rakh Kangwala, Samba	97975-43624
5.	Sunil Thapa	Male	12 th	25 yrs.	Chak Fakira, Samba	84918-14143
6	Satish Singh Katal	Male	12 th	21 yrs.	Khanwal, Samba	60057-94406
7.	Shubam Singh	Male	12 th	18 yrs.	Kaloha, Samba	95417-43052
8.	Ajay Singh	Male	12 th	19 yrs.	Kaloha, Samba	88250-80212
9.	Vishal Singh	Male	12 th	20 yrs.	Kupri, Samba	70519-38623
10.	Abtar Singh	Male	10 th	18 yrs.	Kaloha, Samba	60060-49179
11.	Ganesh Kumar	Male	12 th	19 yrs.	Amli, Samba	96222-42238
12.	Sushil Kumar	Male	12 th	19 yrs.	Nanetar, Samba	60067-48818
13.	Kulbansh Sambyal	Male	12 th	18 yrs.	Dhalote, Samba	99061-08434
14.	Rahul Singh	Male	12 th	20 yrs.	Satha, Samba	70519-72913
15.	Atul Singh	Male	12 th	20 yrs.	Nud, Samba	96220-71909
16.	Ankit Kattal	Male	10 th	18	Village Regal, Rajpura	8899344858
17.	Rohit Kumar	Male	12 th	19	Chak Bagta, Rajpura	6006085819

DISTRICT DISASTER MANAGEMENT AUTHORITY	(. SAMBA
--	-----------

18. Rohit Kumar Male 10th 21 Chak Bagta, Rajpura 6005302676 19. Pankaj Male 10th 21 Ville Bain 9469230539 Sharma Vishal Male 10th 17 Ararzi Samba 7006540620 20. Vishal Male 10th 17 Ararzi Samba 7006540620 21. Sagar Kumar Male 8th 27 Ararzi Samba 9541499803 22. Sumit Kumar Male 8th 23 Ararzi Samba 6005048973 23. Karan Kumar Male 8th 23 Ararzi Samba 979707056 24. Dhoni Male 9th 20 Ararzi Samba 9596720285 Manyal Male 9th 20 Ararzi Samba 8491016836 Kumar Male 10th 23 Ararzi Samba 8491016836 Samba 8491016836 Male 8th 25 Ararzi Samba 8491016836							
Sharma	18.	Rohit Kumar	Male	12 th	18	Chak Bagta, Rajpura	6005302676
Badgal Sagar Kumar Male 8th 27 Ararzi Samba 9541499803	19.	•	Male	10 th	21		9469230539
22. Sumit Kumar Male 9th 18 Ararzi Samba 6005048973 23. Karan Kumar Male 8th 23 Ararzi Samba 9797307056 24. Dhoni Male 9th 17 Ararzi Samba 9596720285 25. Pankaj Male 9th 20 Ararzi Samba 8491016836 Kumar Male 10th 23 Ararzi Samba 8491016836 Kumar Male 10th 23 Ararzi Samba 9682324973 27. Satish Male 8th 25 Ararzi Samba 9682324973 28. Rempu Male 12th 29 Ararzi Samba 9605736538 29. Rohit Kumar M 9th 16 Indira Colony Samba 9797612879 30. Sunil Kumar M 10th 20 Sumb Samba 9797612879 30. Sunil Kumar M 10th 20 Sumb Samba 9797612879 30.	20.		Male	10 th	17	Ararzi Samba	7006540620
23. Karan Kumar Male 8th 23 Ararzi Samba 9797307056 24. Dhoni Male 9th 17 Ararzi Samba 9596720285 25. Pankaj Male 9th 20 Ararzi Samba 8491016836 26. Rohit Kumar Male 10th 23 Ararzi Samba 9682324973 27. Satish Male 8th 25 Ararzi Samba 9682324973 28. Rempu Male 8th 25 Ararzi Samba 9682324973 28. Rempu Male 12th 29 Ararzi Samba 9682324973 29. Rohit Kumar Male 12th 29 Ararzi Samba 9682324973 28. Rempu Male 12th 29 Ararzi Samba 9682324973 29. Rohit Kumar M 16 Indira Colony Samba 9797612879 30. Suil Kumar M 10th 20 Sumba Samba 90622336027	21.	Sagar Kumar	Male	8 th	27	Ararzi Samba	9541499803
24. Dhoni Manyal Male Manyal 9th 17 Ararzi Samba 9596720285 25. Pankaj Kumar Male 9th 20 Ararzi Samba 8491016836 26. Rohit Kumar Male 10th 23 Ararzi Samba 9682324973 27. Satish Male 8th 25 Ararzi Samba 6005736538 Goswami Rempu Male 12th 29 Ararzi Samba 6005736538 28. Rempu Kumar Male 12th 29 Ararzi Samba 6005736538 29. Rohit Kumar M 16 Indira Colony Samba 7889444497 29. Rohit Kumar M 10th 29 Ararzi Samba 7889444497 30. Sunil Kumar M 10th 29 Ararzi Samba 7889444497 30. Sunil Kumar M 10th 20 Sumba Asiba 6005788031 31. Rohit M 12th 20 Jatual, Samba 962223	22.	Sumit Kumar	Male	9 th	18	Ararzi Samba	6005048973
Manyal Male Kumar 9 th 20 Ararzi Samba 8491016836 26. Rohit Kumar Male Male Male Male Male Male Goswami 20 Ararzi Samba 9682324973 27. Satish Goswami Male Male Male Male Male Male Male Male	23.	Karan Kumar	Male		23	Ararzi Samba	9797307056
Color	24.		Male	9 th	17	Ararzi Samba	9596720285
27. Satish Goswami Male Goswami 8 th 25 Ararzi Samba 6005736538 28. Rempu Kumar Male Kumar 12 th 29 Ararzi Samba 7889444497 29. Rohit Kumar M 9 th 16 Indira Colony Samba 9797612879 30. Sunil Kumar M 10 th 20 Sumb Samba 6005788031 31. Rohit M 12 th 20 Sumb Samba 6006060284 Sharma M 12 th 20 Jatwal, Samba 9622336027 33. Rajesh M 20 Jatwal, Samba 9622336027 33. Rajesh M Samba 9419140109 Kumar Samba 9419140109 Kumar Kaink Samba 6005485938 Kumar Kaink Samba 6005485938 Kumar Gupwal Samba 9103195979 36. Nikhili Singh M UG Samba 9103195979 37. Vishal Singh	25.		Male	9 th	20	Ararzi Samba	8491016836
Goswami Rempu Kumar Male Kumar 12th 29 Ararzi Samba 7889444497 29. Rohit Kumar M 9th 16 Indira Colony Samba 9797612879 30. Sunil Kumar M 10th 20 Sumb Samba 6005788031 31. Rohit M 12th 20 Sujana, Rajpura 6006060284 32. Amit Sharma M 12th 20 Jatwal, Samba 9622336027 33. Rajesh M 20 Jatwal, Samba 9622336027 33. Rajesh M Samba 9419140109 Kumar Kaink Samba 9622336027 34. Parveen M Kaink Samba 9103195938 Kumar M UG Samba 9103195979 36. Nikhil Singh M UG Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG	26.	Rohit Kumar	Male	10 th	23	Ararzi Samba	9682324973
Kumar Kumar M 9 th 16 Indira Colony Samba 9797612879 30. Sunil Kumar M 10 th 20 Sumb Samba 6005788031 31. Rohit M 12 th 20 Sujana, Rajpura 6006060284 Sharma M 12 th 20 Jatwal, Samba 9622336027 33. Rajesh M 20 Jatwal, Samba 9622336027 34. Parveen M Samba 9419140109 Kumar Kaink Samba 6005485938 Kumar Kaink Samba 6005485938 Kumar Kaink Samba 9103195979 36. Nikhil Singh M UG Samba 9103195979 36. Nikhil Singh M UG Samba 9103195979 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 39. Vineet M <th< th=""><th>27.</th><th></th><th></th><th>_</th><th></th><th></th><th>6005736538</th></th<>	27.			_			6005736538
30. Sunil Kumar M 10 th 20 Sumb Samba 6005788031 31. Rohit M 12 th 20 Sujana, Rajpura 6006060284 32. Amit Sharma M 12 th 20 Jatwal, Samba 9622336027 33. Rajesh M Samba 9419140109 Kumar Samba 9419140109 34. Parveen M Kaink Samba 6005485938 Kumar Kaink Samba 6005485938 6005485938 Kumar M UG Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma Samba 9149507875 Samba 39. Vineet M UG Samba 9622253726 41. Amit Bazala M UG	28.	Kumar	Male	12 th	29	Ararzi Samba	7889444497
31. Rohit M 12th 20 Sujana, Rajpura 6006060284 32. Amit Sharma M 12th 20 Jatwal, Samba 9622336027 33. Rajesh Kumar M Samba 9419140109 34. Parveen Kumar M Kaink Samba 6005485938 35. Bawa Ditta M Gupwal Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma Sharma 9149507875 39. Vineet M UG Samba 9149507875 Sharma 9149507875 Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 9541464080 43. Khushmeet M UG Samba 9060600295 Singh M UG<	29.	Rohit Kumar	M	9 th	16	Indira Colony Samba	9797612879
Sharma 32. Amit Sharma M 12 th 20 Jatwal, Samba 9622336027 33. Rajesh Kumar M Samba 9419140109 34. Parveen Kumar M Kaink Samba 6005485938 Kumar M Gupwal Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma Vineet M UG Samba 9149507875 40. Ansh Gupta M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 9541464080 43. Khushmeet M UG Samba 9541464080 44. Harsh Kumar M UG Samba 9149613728 <th></th> <th></th> <th></th> <th></th> <th>20</th> <th>Sumb Samba</th> <th>6005788031</th>					20	Sumb Samba	6005788031
33. Rajesh Kumar M Samba 9419140109 34. Parveen M Kumar M Kaink Samba 6005485938 35. Bawa Ditta M Gupwal Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma Samba 9149507875 Sharma Samba 9149507875 40. Ansh Gupta M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	31.		M	12 th	20	Sujana, Rajpura	6006060284
Kumar Kumar Kaink Samba 6005485938 35. Bawa Ditta M Gupwal Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma Vineet M UG Samba 9149507875 Sharma M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	32.	Amit Sharma	M	12 th	20	Jatwal, Samba	9622336027
Kumar 35. Bawa Ditta M Gupwal Samba 9103195979 36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma 9 Vineet M UG Samba 9149507875 Sharma 9 Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	33.		M			Samba	9419140109
36. Nikhil Singh M UG Samba 9103094972 37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 Sharma M UG Samba 9149507875 Sharma Sharma 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh M UG Samba 9541464080 43. Khushmeet M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	34.		M			Kaink Samba	6005485938
37. Vishal Singh M UG Samba 9906215596 38. Ashish M UG Samba 7051046100 39. Vineet M UG Samba 9149507875 Sharma Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	35.	Bawa Ditta	M			Gupwal Samba	9103195979
38. Ashish Sharma M UG Samba 7051046100 39. Vineet Sharma M UG Samba 9149507875 40. Ansh Gupta M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet Manjeet Singh M UG Samba 6006600295 Singh Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	36.	Nikhil Singh	M	UG		Samba	9103094972
Sharma 39. Vineet M UG Samba 9149507875 40. Ansh Gupta M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh Samba 9541464080 43. Khushmeet M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728				UG			9906215596
Sharma 40. Ansh Gupta M UG Samba 9622253726 41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh Samba 9541464080 43. Khushmeet M UG Samba 9082200992 44. Harsh Kumar M UG Samba 9149613728	38.	Sharma	M	UG		Samba	7051046100
41. Amit Bazala M UG Samba 7889974196 42. Manjeet M UG Samba 6006600295 Singh Samba 9541464080 43. Khushmeet M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	39.		M	UG		Samba	9149507875
42. Manjeet Singh M UG Samba 6006600295 43. Khushmeet M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	40.	Ansh Gupta	M	UG		Samba	9622253726
Singh 43. Khushmeet M UG Samba 9541464080 44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	41.	Amit Bazala	M	UG			7889974196
44. Harsh Kumar M UG Samba 8082200992 45. Rohit M UG Samba 9149613728	42.		М	UG		Samba	6006600295
45. Rohit M UG Samba 9149613728	43.	Khushmeet	M	UG		Samba	9541464080
	44.	Harsh Kumar	M	UG		Samba	8082200992
Majotra	45.	Rohit Majotra	М	UG		Samba	9149613728