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Identifying and Managing Disaster Involving Communities : A Case Study of Jaipur District

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ABSTRACT: Disaster Risks in Rajasthan: Rajasthan is one of the most drought prone states, due to its low average rainfall, coupled with erratic behaviour of Monsoons. The state has also witnessed some major disasters in the recent past, like the floods in Barmer (2006), IOC Depot Fire, at Jaipur (2009), the stampede at Jodhpur (2008), the serial bomb blasts, Jaipur (2008), and the collapse of Chambal bridge at Kota (2009) to name a few. Further, some parts of the state fall under seismic zones III and IV. Looking at the large proportion of economically and socially weak sections that make up the total population of the state, vulnerability to disasters in the state is also very high. Within these vulnerable groups, elderly persons, women, and children – especially destitute women/orphaned children and physically challenged persons are exposed to higher risks.

KEYWORDS- disaster, Jaipur, Rajasthan, communities, management

I. INTRODUCTION

Disaster Risks in Jaipur District The most of Jaipur District comes under seismic disturbances zone II, so it is not highly vulnerable according to earthquake. Besides earthquake, Jaipur district is vulnerable towards natural and manmade calamities like, Floods, Cloudburst, Thunder & Lightning, Droughts, Wind Storms, Sunstroke, Cold Wave, Fire Accidents and Chemical and Biological threats. Risk Analysis/Vulnerability for AG Office and Colony The probability of occurrence of natural disasters like earthquake, flood, hail storm, land slide, fire, etc., are based on the geographical and seasonal factors affecting the location in which the office is located. These disasters could trigger fire hazards, diseases and cause damages to essential support systems. In addition, negligence in using electrical appliances and installations, security lapses, terrorist attacks etc. could also end up in a disaster and may affect the following aspects: 1. Loss of human life; 2. Loss of critical IT data; 3. Loss of records, files and other assets; 4. Damages to the official and residential buildings. **Capacity to deal with disasters** **Office Building** The building complex is structurally well built with ample open spaces. There are multiple exit routes which are critical in hazardous situations. Open passageways and shafts aid to sufficient lighting and ventilation which is helpful at times of fires. Proximity to major Government departments and hospitals is an added asset. The office is easily approachable for relief vehicles such as firefighting vans and ambulances etc. For quick response, in the event of disaster, there are nine vehicles of officers (3 staff cars and 6 Inspection Vehicles) in the office building that can be used for rescue and relief work.

AG colony has block-wise residential quarters. Every block has at least two side open area. Maximum height of any block is G+2. Colony has ample of open area to mitigate the rescue during hazardous situation. CGHS Dispensary and Polyclinic, Community Centre (having 5 rooms and one big hall) are added facilities. RBI Colony, High Court Colony, MLA Quarters, Shiksha Sankul (Offices of Education Departments of Rajasthan Government) are situated in surrounding. Colony is easily approachable for relief vehicles such as firefighting vans and ambulances etc.

DISASTER MANAGEMENT COMMITTEE

3.1 Members As per para 3.1.1 of MSO (Estate) a Disaster Management Committee (DMC) should be formed by every Head of the Department (HoD) of offices situated in office building as given below:- 1. Deputy Accountant General (Administration), 2. Welfare Officer, 3. Secretary to the Accountant General, 4. Senior Audit Officer (Administration-I). All the offices in the city have constituted the DMCs as directed. **3.2 Purpose of the Committee** The Committee will ensure the installation of a proper emergency management system for the office covering: 1. Installation of suitable warning and security system. 2. Maintenance of uninterrupted communication.[1,2,3] 3. Create awareness among the staff about DMP (Disaster Management Plan), preparedness, DOs & DON'Ts during emergencies, and relief measures. 4. Publishing contact addresses and telephone numbers of responsible authorities namely Fire Department, Police,



District Collector/Commissioner, Meteorological Department, Hospitals, etc.. 5. Conduct periodical inspections or safety audits to check the readiness of EMS (Emergency Management System). 6. Conducting mock exercises to ensure automatic activation of EMS in case of emergency. 3.3 Meetings of the Disaster Management Committee The Disaster Management Committees of the offices shall meet half yearly and the report of the meeting has to be sent to Headquarters' office through online mode in the month of January and July every year.

II. DISCUSSION

PREVENTION, MITIGATION AND PREPAREDNESS PLAN

4.1 Plan for necessary measures Group Officer in-charge of Administration is the chairperson, Secretary to the Accountant General, Welfare Officer and Senior Audit Officer (GD) are members of the DMC which functions under the overall supervision of the Deputy Accountant General (Administration). The DMC monitors the implementation of Disaster Management Plan and supervises all the quick response teams

4.2 Duties & Functions of Welfare Officer in relation to Disaster Management 1. To maintain a first aid kit to ensure immediate medical assistance to the sick or injured staff member until full medical treatment is made available; 2. To coordinate the disaster management activities and arranging mock drills in collaboration with the fire department; 3. Conducting camps like Blood Donation Camp, Yoga Camp, meditation camps, Health & Dental Check-up, etc. for the overall well-being of the members of the staff. 4. To advise on provisions and maintaining amenities & welfare facilities in the office building i.e. encouraging provision of adequate sanitation facilities, safe drinking water, overall hygiene, common room for women employees, crèche in office for the benefit of working parents and the like. 5. To manage activities of the departmental café to provide quality food and its smooth functioning on all occasions. 6. To maintain and encourage the use of recreation room cum gym for health & fitness of the members of the staff 4.3 Capacity Building To handle any disaster effectively, it is necessary to have proper capacity. Offices plan to have regular capacity building exercise in collaboration with other Government Agencies and District Disaster Management Authority. Mock drills are planned to be organized for staff and residents of AG Colony (in coordination with AG Colony Welfare Society). 4.3 Disaster Management Cycle Disaster management encompasses a range of activities, which are envisaged as a cycle involving disaster event, response, preparedness and mitigation in that sequence. None of these steps in disaster management cycle are watertight compartments. If disasters have been handled professionally with the perspective of a long term development and sustainability, the quantity of relief required could be halved drastically.[4,5,6]

DISASTER INFORMATION FLOWS AND ALERTS OF DISASTERS

5.1 Levels of Disasters: The Standard Operating Procedures (SOPs) shown in Annexure-5 will determine the levels of disasters and for issuing alerts to electronic messaging systems to various agencies about disasters have been formulated by Ministry of Home Affairs (MHA). These SOPs will be reviewed periodically for disaster response management in case of natural and man-made disasters. 5.2 Integrated Operating Centres (IOC) of MHA: IOC have been set up to handle disaster situations on 24x7 basis which is responsible for initiating incident alert messages when disaster is likely to occur or when it has actually taken place. 5.3 Categorization of Alerts: A Standard Operating Procedure has been prepared for alerts of events of different types and identifies the situations when alerts are to be sent by the IOC. Specific hazards have different categories of alerts. Accordingly, a uniform system has been devised by categorizing each type of alert in stages – Yellow, Orange and Red. 5.4 Action Plan for Communication of Alert Messages: Whenever a crisis is about to be faced, Government of India has laid down systems for warning its respective departments through an 'Alert'. It should be understood that mere issue of an 'Alert' (Yellow or Orange) is not an indication of the occurrence of a Disaster. This only signifies the existence of a crisis for which provisions of the Crisis Management Plan would come into operation. The Action Plan for Alert Messages lays down as under: (i) All concerned Ministries/Departments/Organisations/Agencies will report events to IOC, MHA. (ii) While generating and transmitting alerts to IOC, MHA, the concerned agency, will indicate the category of the event as well as its corresponding stage (Red/Orange/Yellow). 5.5 Monitoring/Reporting of Effects of Disaster: The HQs office would be given information regarding Orange/Red Alerts. On the declaration of an incident as a Disaster by a State Government or District Administrator the updates from time to time would be given to the Safety Control room in the office. 5.6 Standard Operating Procedure (SOP): National Disasters:- The CPWD and Safety Control room gets information through advance warning sent by the State Government Departments on the possibility of Floods, Cyclones, Earthquakes, Landslides etc. Depending on the gravity of the disaster/crises/calamity expected the information would be passed on to the Safety Department which will act as the ICS1 and would advise for management of the welfare of the staff/family. Coordination with the IOC of MHA and NDMA/NDRF would be through the HQs office. 5.7 SOPs should broadly cover the following aspects: i. Official on duty who detects the incident first will inform the control



rooms functional round the clock and control room in turn will further inform immediately to NDRF/SDRF, local authorities like local police, fire brigade, hospitals and other local authorities. Simultaneously informing all senior officials who in turn will inform all the concerned Ministries/ Departments for seeking assistance. ii. Segregating the affected areas should be done immediately to avoid further damage. iii. Loud-Hailer should be provided for making announcements. iv. Ambulance equipped with life supporting system and minimum first aid facility should be called for transportation of injured/ casualties. v. Prompt action including assistance from locals to evacuate stranded officials/ families in operational area should be taken. vi. Operation and manning of the disaster control room. vii. Coordination amongst various stakeholders through advance warnings. viii. Communication system with backups to be in readiness for immediate use when required. 5.8 Risk assessment for the probability of occurrence of disasters & formulation of safety norms The DMC shall be responsible for assessing, in coordination with the competent departments of Central/ State Government, the risks to which the office and the colony, its properties and employees are prone due to any disaster. Accordingly, preventive measures should be taken. Generally, IAAD offices are highly vulnerable to fire as it accumulates and stores huge quantity of records. Therefore, office-specific fire safety norms should be prepared and circulated among the employees and officers. [7,8]

III. RESULTS

The primary objective of the 'trigger' mechanism is to perceive and to respond to an emergency by undertaking immediate rescue or relief operation. This mechanism envisages a quick response on receiving signals of a disaster happening or likely to happen from various sources such as newspapers, television, radio, police, security personnel, NGOs etc. The warning messages should be quickly verified for its authenticity and actions suitable for handling each type of emergency should be activated. Therefore, DMC under the guidance of HOD should evolve a proper 'trigger' mechanism and design disaster specific follow up action based on the following guidelines. A. Identify the disasters that are prone to the locality and install suitable signal or warning mechanism to alert the employees. B. Security staff and caretakers could be designated as 'trigger' points and should be authorized to use public address systems, fire alarms, sirens etc to alert the staff and officers. C. Security & housekeeping staff and Caretaker of the office are to be instructed to be vigilant to perceive any emergency and report to the members of DMC to activate the EMS. D. On the line of above, in the Colony 'trigger' mechanism could be developed in between Estate Officials who are residents of Colony, Security Guards and selected residents. They are to be instructed to be vigilant to perceive any emergency and report to the members of DMC to activate the EMS. 5.9 Handling of disaster situation to bring in normalcy quickly Disaster specific preventive and remedial measures are to be planned well in advance and the same should be widely published for creating awareness among all employees and officers. All activities required for the mitigation process are to be activated quickly by DMC simultaneously without loss of time. To ensure proper and quick handling, the following actions are to be taken. A. List disaster specific remedial actions and specify job descriptions and responsibility to staff and officers of different levels for office/Colony B. Quickly mobilize the trained security staff and volunteers to handle emergencies once the 'warning or signal' is on. Evacuate employees and officers quickly from the office premises without any delay and in the case of colony from the affected place/premise. C. Involve other Govt. agencies viz. Fire Dept, Police, District Collector/Commissioner, Hospitals etc. for emergency handling without any delay. D. Develop alternative contingency plans as back up. E. Keep first aid kit ready in the welfare cell of the office and in Community Centre of the Colony. F. Devise continuity plans ready for quick restoration of normalcy. [9,10]

PREVENTION AND MITIGATION MEASURES

The prevention and mitigation measures consist of those actions or specific activities which reduce the risk from natural/manmade disasters or induced effects, may also lead to the epidemics or health related disasters. To address these high potential risks, the office will come out with strategic planning, supplemented by the specific interventions. It is highly recommended to go for the equal participation of gender (especially women), for all the disaster prevention and mitigation related initiatives by the office. Key prevention & mitigation activities of the office will be: 1. Supply of safe drinking water, water quality monitoring and improved sanitation 2. Vector control measures as a part of the overall community sanitation activities 3. Sanitation of sewage and drainage systems for smooth flow of waste/ water 4. Developing proper solid waste, E-waste management systems 5. Identify appropriate locations to set up the emergency operation camps during any disaster event 6. Arrange or identify the available sources for standby generators for every contingency 7. Develop systems of awareness generation among most vulnerable communities about various infectious diseases and their Prevention 8. Arrangement for vehicles during emergencies for transport of injured persons 9. Installation of suitable warning & security system. 10. Maintenance of uninterrupted communication 11. Create awareness among the staff about Disaster Management Plan (DMP), preparedness, DOs & DON'Ts during emergencies and relief measures 12. Publishing contact addresses and telephone numbers of responsible authorities namely Fire Department, Police, District Collector/ Commissioner, Meteorological Dept, Hospitals etc. 13. Conduct

periodical inspections or safety audits to check the readiness of EMS Conducting mock exercises to ensure automatic activation of EMS in case of emergency.

6.2 SAFETY MEASURES

6.2.1 Earthquakes - Earthquakes usually give no warning at all. Before the earthquake: Always keep the following in a designated place: bottled drinking water, non-perishable food, first-aid kit, torch-light and battery-operated radio with extra batteries. Teach family members how to turn off electricity, gas, etc. Identify places in the house that can provide cover during an earthquake. It may be easier to make long distance calls during an earthquake. Identify an out-of-town relative or friend as your family's emergency contact. If the family members get separated after the earthquake and are not able to contact each other, they should contact the designated relative/friend. The address and phone number of the contact person/relative should be with all the family members. 6.2.2 Safeguard your house Consider retrofitting your house with earthquake-safety measures Reinforcing the foundation and frame could make your house quake resistant. You may consult a reputable contractor and follow building codes. Kutcha buildings can also be retrofitted and strengthened. 6.2.3 During quake: Earthquakes give no warning at all. Sometimes, a loud rumbling sound might signal its arrival a few seconds ahead of time. Those few seconds could give you a chance to move to a safer location. Here are some tips for keeping safe during a quake. Here are some tips for keeping safe during a quake while being indoors:- Take cover. Go under a table or other sturdy furniture; kneel, sit, or stay close to the floor. Hold on to furniture legs for balance. Be prepared to move if your cover moves. If no sturdy cover is nearby, kneel or sit close to the floor next to a structurally sound interior wall. Place your hands on the floor for balance. Do not stand in doorways. Violent motion could cause doors to slam and cause serious injuries. You may also be hit by flying objects. Move away from windows, mirrors, bookcases and other unsecured heavy objects. If you are in bed, stay there and cover yourself with pillows and blankets Do not run outside if you are inside. Never use the lift. 6.2.4 If outdoors: Move into the open, away from buildings, streetlights, and utility wires. Once in the open, stay there until the shaking stops. If your home is badly damaged, you will have to leave. Collect water, food, medicine, other essential items and important documents before leaving. Avoid places where there are loose electrical wires and do not touch metal objects that are in touch with the loose wires. Do not re-enter damaged buildings and stay away from badly damaged structures. 6.2.5 If in a moving vehicle: Move to a clear area away from buildings, trees, overpasses, or utility wires, stop, and stay in the vehicle. Once the shaking has stopped, proceed with caution. Avoid bridges or ramps that might have been damaged by the quake. 6.2.6 After the quake: Here are a few things to keep in mind after an earthquake.[10]

Wear shoes/chappals to protect your feet from debris After the first tremor, be prepared for aftershocks. Though less intense, aftershocks cause additional damages and may bring down weakened structures. Aftershocks can occur in the first hours, days, weeks, or even months after the quake. check for fire hazards and use torchlight's instead of candles or lanterns. If the building you live in is in a good shape after the earthquake, stay inside and listen for radio advises. If you are not certain about the damage to your building, evacuate carefully. Do not touch downed power line. Help injured or trapped persons. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. In such cases, call for help. Remember to help your neighbours who may require special assistance infants, the elderly, and people with disabilities. Listen to a battery-operated radio for the latest emergency information. Stay out of damaged buildings. Return home only when authorities say it is safe. Clean up spilled medicines, bleaches or gasoline or other flammable liquids immediately. Leave the area if you smell gas or fumes from other chemicals. Open closet and cupboard doors cautiously. If you smell gas or hear hissing noise, open windows and quickly leave the building. Turn off the switch on the top of the gas cylinder. Look for electrical system damages - if you see sparks, broken wires, or if you smell burning of amber, turn off electricity at the main fuse box. If you have to step in water to get to the fuse box, call an electrician first for advice. Check for sewage and water lines damage. If you suspect sewage lines are damaged, avoid using the toilets. If water pipes are damaged, avoid using water from the tap. Use the telephone only for emergency calls. In case family members are separated from one another during an earthquake (a real possibility during the day when adults are at work and children are at school), develop a plan for reuniting after the disaster. Ask an out of state / district relative or friend to serve as the "family contact". Make sure everyone in the family knows the name, address, and phone number(s) of the contact person (s).

6.3 Floods

6.3.1 Basic Safety Precaution to be taken: Listen to radio/ TV for the latest weather bulletins and flood warnings. Pass on the information to the others. Make a family emergency kit which should include; a portable radio/ transistor, torch, spare batteries, a first aid box along with essential medicines, ORS, dry food items, drinking water, matchboxes, candles and other essential items. Keep hurricane lamp, ropes, rubber tubes, umbrella and bamboo stick in your



house. • These could be useful. Keep your cash, jewellery, valuables, important documents etc. in a safe place. • If there is a flood, move along with family members and cattle to safe areas like relief camps, evacuation centres, elevated grounds where you can take shelter. Turn off power and gas connections before leaving your house. • 6.3.2 During floods: Don't enter into flood waters; it could be dangerous. • Don't allow children to play in or near flood waters. • Stay away from sewerage line, gutters, drains, culverts etc. • Be careful of snakes; snakebites are common during floods. • Stay away from electric poles and fallen power-lines to avoid electrocution. • Don't use wet electrical appliances – get them checked before use. • Eat freshly cooked and dry food. Always keep your food covered. • Use boiled and filtered drinking water. • Keep all drains, gutters near your house clean. • Stagnation of water can breed vector/ water-borne diseases. In case of sickness seek medical assistance. Use bleaching powder and • 6.4 Fire Hazard

6.4.1 High-Rise Fires: Calmly leave the building. • Pull the fire alarm near the closest exit, if available, or raise an alarm by warning others. • Leave the building by the stairs. • Never take the elevator during fire • 6.4.2 If the exit is blocked by smoke or fire: Leave the door closed but do not lock it. • To keep the smoke out, put a wet towel in the space at the bottom of the door. • Call the emergency fire service number and tell them your room number and let them know you are trapped by smoke and fire. It is important that you listen and do what they tell you. Stay calm and wait for someone to rescue you. • If there is a fire alarm in your room/floor make sure it goes off: • Before you open the door, feel the door by using the back of our hand. If the door is hot or warm, do not open the door. If the door is cool, open it just a little to check the hallway. If you see smoke in the hallway, do not leave. If there is no smoke in the hallway, leave and close the door. Go directly to the stairs to leave. Never use the elevator.[8,9]

6.4.3 If smoke is in your apartment:

Stay low to the floor under the smoke. • Call the Fire Emergency Number along with police and other emergency services and let them know that you are trapped by smoke. If you have a balcony and there is no fire below it, go out. • If there is fire below, go out to the window. DO NOT OPEN THE WINDOW but stay near the window. If there is no fire below, go to the window and open it. Stay near the open window. • Hang a bed sheet, towel or blanket out of the window to let people know that you are there and need help. Be calm and wait for someone to rescue you. •

6.4.5 Kitchen Fires: It is important to know what kind of stove or cooking oven you have in your home – gas, electric, and kerosene or where firewood is used. The stove is the No. 1 cause of fire hazards in your kitchen and can cause fires, which may destroy the entire house, especially in rural areas where there are thatched roof or other inflammable materials like straw kept near the kitchen. For electric and gas stoves ensure that the switch or the gas valve is switched off/turned off immediately after the cooking is over. An electric burner remains hot and until it cools off, it can be very dangerous. The oven using wood can be dangerous because burning embers remain. When lighting the fire on a wooden fuel oven, keep a cover on the top while lighting the oven so that sparks do not fly to the thatched roof. After the cooking is over, ensure that the remaining fire is extinguished off by sprinkling water if no adult remains in the kitchen after the cooking. Do not keep any inflammable article like kerosene near the kitchen fire. 6.4.6 Important Do's in the Kitchen: Do have an adult always present when cooking is going on the kitchen. Children should not be allowed alone. Do keep hair tied back and do not wear synthetic clothes when you are cooking. • Do make sure that the curtains on the window near the stove are tied back and will not blow on to the flame or burner. Do check to make sure that the gas burner is turned off immediately if the fire is not ignited and also switched off immediately after cooking. Do turn panhandles to the centre of the stove and put them out of touch of the children in the house. Do ensure that the floor is always dry so that you do not slip and fall on the fire. • Do keep matches out of the reach of children. • 6.4.7 Important Don'ts: Don't put towels, or dishrags near a stove burner. • Don't wear loose fitting clothes when you cook, and don't reach across the top of the stove when you are cooking. Don't put things in the cabinets or shelves above the stove. Young children may try to reach them and accidentally start the burners, start a fire, catch on fire. Don't store spray cans or cans carrying inflammable items near the stove? • Don't let small children near an open oven door. They can be burnt by the heat or by falling onto the door or into the oven. Don't lean against the stove to keep warm. • Don't use towels as potholders. They may catch on fire. • Don't overload an electrical outlet with several appliances or extension cords. The cords or plugs may overheat and cause a fire. Don't use water to put out a grease fire. ONLY use baking soda, salt, or a tight lid. • Always keep a box of baking soda near the stove. Don't use radios or other small appliances (mixers, blenders) near the sink. • 6.4.8 COMMON TIPS: Do keep the phone number of the Fire Service and ensure that everyone in the family knows the number. Do keep matches and lighters away from children. • Do you know that you should never run if your clothes are on fire and that you should - • "STOP – DROP-ROLL." [7,8,9]



BODY OF WORK

6.5 Lightning and Thunderstorm

6.5.1 Danger during thunderstorms:

Lightning claims quite a few lives and injures many every year. Quite a large number of injuries from the electric shock received while using fixed telephones during thunderstorms. Take these precautions during thunderstorms: 6.5.2 Take action now Consult an electrician for advice on lightning conductors required for your house. 6.5.3 If caught outdoors: If you hear thunder 10 seconds after a lightning flash, it is only about three kilometers away. The shorter the time, the closer the lightning, so find shelter urgently: Seek shelter in a hardtop (metal-bodied) vehicle or solid building but avoid small open structures or fabric tents. Never take shelter under a small group of (or single) trees. If far from any shelter, crouch (low, feet together), preferably in a hollow. Remove metal objects from head / body. Do not lie down flat but avoid being the highest object. If your hair stands on end or you hear 'buzzing' from nearby rocks, fences, etc, move immediately. At night, a blue glow may show if an object is about to be struck. Do not fly kites during thunderstorms. Do not handle fishing rods, umbrellas or metal rods, etc. Stay away from metal poles, fences, clotheslines etc. Do not ride bicycles or travel on open vehicles. If driving, slow down or park away from trees, power lines, stay inside metal-bodied (hard top) vehicles or in a pucca building but do not touch any metal sections. If in water, leave the water immediately. If on a boat, go ashore to a shelter as soon as possible. Be sure the mast and stays of the boat are adequately secured. 6.5.4 If you are indoors Before the storm arrives, disconnect external aerial and power leads to radios and television sets. Disconnect computer modems and power leads. Draw all curtains and keep clear of windows, electrical appliances, pipes and other metal fixtures (e.g. do not use the bath, shower, hand basin or other electric equipments) Avoid the use of fixed telephones. In emergencies, make calls brief, (do not touch any metal, brick or concrete) and do not stand bare foot on concrete or tiled floors. 6.5.6 First Aid Apply immediate heart massage and mouth-to-mouth resuscitation to lightning victims until medical help arrives. (You won't receive a shock from the victim).

6.6 Lightning facts and myths When struck, people do not glow or fry to a crisp but the heart and breathing are often affected. Only about 30% of people struck actually die, and the incidence of long-term disability is low, particularly when appropriate first aid is applied promptly. If your clothes are wet, you are less likely to be seriously injured if struck, as most of the charge will be conducted through the wet clothes rather than your body. 6.7 Heat wave 6.7.1 Do's and Don'ts Establish Early Warning System and Inter-Agency Coordination for raising alerts on high and extreme temperatures. Initiate location-specific measures as outlined in District Contingency Plans. Sensitization cum training programme at the local level to recognize and respond to heat-related stresses among officials and their families. Disseminating public awareness messages on how to protect against the extreme heat using IEC material. [8,9,10]

6.8 Chemical Terrorism Attack The approach followed in the NDMA's Guidelines lays emphasis on: i) Security and surveillance measures for installations manufacturing/using/storing chemicals. ii) Strengthening intelligence regarding the movement of chemicals. iii) Preparedness for counter-terrorism measures : (a) Issues regarding the safety of chemicals and risk reduction strategies etc. (b) Strengthening of response through rescue and emergency medical resources. (c) Preparedness of all emergency functionaries in terms of protection, detection, decontamination, decorporation, capacity building and infrastructure development. (d) Community-centric mechanism for the management of chemical (terrorism) disasters.

6.9 BIOLOGICAL DISASTER Biological disasters include outbreaks of epidemic diseases, plant or animal contagion, insect or other animal plagues and infestation. Biological disasters may be in the form of:- Epidemic affecting a disproportionately large number of individuals within a population, community, or region at the same time, examples being Cholera, Plague, Japanese Encephalitis (JE)/Acute Encephalitis Syndrome (AES); or, Pandemic is an epidemic that spreads across a large region, i.e. a continent, or even worldwide of existing, emerging or reemerging diseases and pestilences, example being Influenza H1N1 (Swine Flu), Covid-19. 6.9.1 Before the Disaster A. Plan for Family Biological Disaster Plan. B. Preparation by ensuring Prevention measures:- (a) Personal cleanliness - daily bath, don't grow long nails and wear clean clothes. (b) Hand Hygiene (Wash hands with soap and water before preparing food or eating, after passing stools, coughing or sneezing). The steps of hand washing are:- Step 1 : Wash palms and fingers Step 2 : Wash back of hands Step 3 : Wash fingers and knuckles Step 4 : Wash wrists (c) Eat nutritious and balanced food. (d) Immunisation state should be up-to date. (e) Prevent overcrowding. (f) Good ventilation. (g) Protect from hot and cold weather. (h) Health Education. (i) Surveillance. C. Take a First Aid and Cardio-Pulmonary Resuscitation (CPR) training. D. Subscribe to a Medical Insurance Plan.



IV. CONCLUSION

State Disaster Management Authority- (1) The State Government hereby, in exercise of the powers conferred by sub-section (1) of section 14 of the Act, establishes a State Authority for the State of Rajasthan to be known as "the Rajasthan Disaster Management Authority". (2) The State Authority shall consist of following nine members:- (i) Chief Minister, Rajasthan; (ii) Minister in charge, Finance Department, Government of Rajasthan; (iii) Minister in charge, Water Resources Department, Government of Rajasthan; (iv) Minister in charge, Rural Development and Panchayati Department, Government of Rajasthan; (v) Minister in charge, Medical and Health Department, Government of Rajasthan; (vi) Minister in charge, Local Self Govt. and Urban Development Department, Government of Rajasthan; (vii) Minister in charge, Home Department, Government of Rajasthan; (viii) Minister in charge, Agriculture and Animal Husbandry Department, Government & Relief Department, Government of Rajasthan. (ix) Minister in charge. Disaster Management & Relief Department, Government of Rajasthan. (3) The Authority may, under the special circumstances, invite any Minister or Minister of State, who is not a member of the Authority as a special invite. if it is felt necessary. (4) Whenever it is considered desirable the State Authority may invite any member of the State Executive Committee for assistance its functions. (5) The Chief Minister shall be the Chairperson of the State Authority. (6) The Chairperson of the State Executive Committee shall be the Ex-Officio Executive Officer of the State Authority and the Principal Secretary, Disaster Management and Relief Department shall be the Ex-Officio Additional Chief Executive Officer of the State Authority. (7) The Chairperson of the State Authority may designate one of the members to be the Vice-Chairperson of the Authority.

District Disaster Management Authority.- (1) The State Government hereby establishes. For every district, a Disaster Management Authority, which shall be known (name of the District) Disaster Management Authority. (2) Every District Disaster Management Authority consist of following- (i) Collector and District Magistrate - Chairperson; (ii) Pramukh Zila Perished - Co-Chairperson; (iii) Chief Executive Officer Zila Perished - Member; (iv) District Superintendent of Police - Member; (v) Senior most officers of the public - Member; Works Department, in the district (vi) Senior most officers of the public - Member; Works Department, in the district (vii) Additional Collector and District Magistrate - Ex Officer; (Officer In charge of Relief Section) (3) The following shall be permanent invitees to the Authority- (i) Members of Parliament (Lock Shaba) elected from the district. (ii) Members of Legislative Assembly representing the Area of the District. (iii) Senior most officers of the Public Health Engineering Department, Medical Department and Animal Husbandry Department posted in the district. (4) The Chairperson of District Authority, under special circumstances, if he feels necessary, may invite any person a special invitee. (5) The District Authority could associate any district level officer of any department under the State Government or Central Government who is not a member of the Authority. If the Authority feels it desirable that his presence is essential for immediate prevention, mitigation and response. 11. Office and Staff of the District Authority.- The office of the district authority shall be in the office of the Additional District authority shall be in the office of the Additional District Magistrate and Collector/Officer-in-charge of Relief section of the Collect-orate and all necessary staff shall be provided by that office. 12. Power and Functions of the District Authority.- The District Disaster Management Authority shall- (i) perform all functions entrusted to it under section 30,31,33, and 34 of the Act, (ii) Perform such other functions as are assigned to it by the State Government or State Authority, (iii) Perform such other functions as it deems necessary for Disaster Management in the District, and (iv) submit to the State Authority all such matters requiring policy decisions. 13. Advisory Committee.- (1) The state Authority or the District Authority may, as and when it considers necessary, constitute Advisory Committees, consisting of experts in the field of Disaster management and having practical experience of disaster Management to make recommendations on different aspects of disaster management. (2) The number and tenure of members of the Advisory Committee shall be such, as decided by the Authority, as per requirement from time to time. (3) The members of the Advisory Committee shall be paid such allowances as may be specified by the State Government from time to time. 14. Repeal and savings.- (1) All notifications, orders, directions and guidelines inconsistent to these rules or in relation to matters covered by these rules are here by repealed: Provided that such repeal shall not affect any right, title or liability already acquired, accrued or incurred or anything done or suffered. 15. Removal of doubts.- If any doubt arises relating to application, interpretation and scope of these rules, it shall be referred to Disaster Management and Relief Department whose decision thereon shall be final.[10]

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