

DISTRICT DISASTER MANAGEMENT PLAN
of
DISTRICT BAREILLY,
UTTAR PRADESH
(Year- 2017-18)



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CHAPTER 1

Introduction

Disaster is any event that will significantly impact the operation like fire, floods , earthquake , riots, computer system crash, power outage etc, No one is exempt from emergency and the most people are unprepared if emergency erupts. The employees of company have to be prepared for the emergency may exceed our ability to respond effectively: a worst-case scenario.

Emergency r results from three types of incidents caused by:

- 1) Natural or Cataclysmic events i.e earthquake, fire, flood, storm etc
- 2) Human behavior i.e Bomb Threat, arson, terrorist attack, vandalism, hostage situation, general strike etc.
- 3) Technological break down i.e break down of equipment, power outage, computer crash etc.

An important aspect of the disaster is its unforeseen nature and magnitude hence it is impossible to control completely.

Defining Disaster:

Disaster can be defined as an occurrence of such magnitude so as to create a situation in which normal pattern of life within facility is suddenly disrupted, adversely affecting not only the personnel and property.

The key to District Disaster Management Plan is to have plans in place when the emergency strikes and a set of simple effective guidelines and procedure for all the people to follow. Human beings tend to make inappropriate decisions during a crisis. When the Administration has plans to cope with most emergencies then the chances of survival and recovery are greater and faster. During crisis traditional roles and routines activities get temporarily suspended.

The above scenario calls for an integrated approach in two phases:

1. First aim should be eliminating or reducing the possibility of occurrence of disasters and also mitigate its effects, if in spite of best possible effort and practices the disaster should occur. The first phase, also called as preventive phase, incorporates the safety in design of industry.
2. Second phase aims at preparedness, rehearsals, and awareness of the steps to be taken in the case of emergencies & disasters, aimed at containing and alleviating loss to life and property.

It is well documented that in case where the organization and the civil authorities were prepared to handle the situation, the losses were significantly less since these undesirable events occur suddenly and generally without immediate warning, especially the technological disasters, the result is an emergency. Though the

Emergency Services and the authorities has responded to the challenge and has introduced no. of measures to minimize the hazards, still one can not forget the fact that accident cannot be completely eliminated.

District Disaster Management Plan of District Bareilly has been prepared after making a detailed study of the hazards (existing & probable) and their magnitude & severity. Also, the resources available to mitigate the emergencies have been listed.

In order to be effective the critical elements that form the backbone of the plan are:

1. Reliable and early detection of an emergency and careful planning
2. The command, co-ordination and response organization structure along with efficient trained persons.
3. Availability of resources for handling emergencies/disaster.
4. Appropriate disaster response action and treatment of the casualties.
5. Effective Search and Rescue System.
6. Effective notification and communication facilities.
7. Regular review and updating.
8. Proper and regular training of the concerned personnel.
9. To bring back the normal situation in the least possible time.
10. To minimize its occurrence.

CHAPTER 2

HAZARD, VULNERABILITY, CAPACITY AND RISK ASSESSMENT

TOPOGRAPHY OF DISTRICT BAREILLY

Area of District Bareilly is 4120 square kilometres, in which there are 6 Tehsils and 214 Villages.

Administration Head of District Bareilly is District Magistrate. At District level he is assisted by Additional District Magistrates (ADMs); at Subdivision level he is assisted by Sub Division Magistrates (SDMs); at Tehsil level he is further assisted by Tehsildars.

District Bareilly is bounded by

North - District Udham Singh Nagar(U.K.)

South – Districts Badaun & Shahjahanpur

East – District Pilibhit

West – District Rampur

Area – 4120 Square Kilometres

Spread (North – South) – 150 Kilometres

Spread (East – West) – 90 Kilometres

Population (as per 2011 Census) – 44,65,344

The district has a sub-tropical continental monsoon climate where we find seasonal rhythm, hot summer, cool winter, unreliable rainfall and great variation in temperature. In winters, frost sometimes occurs during December and January. The district also gets occasional winter rains from cyclones. The rain fall is mostly restricted to rainy season. The district has plain and flood - plain along the river Ramganga. The important rivulets of the district are River Kichha, River Devha, River Dhaura, River East Behgul & River Apsara.

HAZARDS PREVAILING IN DISTRICT BAREILLY

When we speak of hazards, that may result into disasters, are of two categories:

Natural Disaster like

1. Flood
2. Draught
3. Earthquake
4. Epidemics arising due to the above.

Manmade disasters like

1. Major Fires
2. Industrial Fires
3. Disaster due to hazardous material in industries. The main material which may become the cause of disaster in Bareilly District are:
 - LPG
 - Bulk Petroleum Storage
 - Ammonia
 - Chlorine
 - Sulphur
 - Bulk edible oils
 - Foam

RIVERS & RIVULETS IN & AROUND BAREILLY

RIVER / RIVULET	FLOOD PRONE AREAS	PREVIOUS FLOOD HISTORY
River Kichha	Baheri, Sheragrh, Meerganj, Fatehganj West	2010: Due to 95,000 cusec water discharged from Gola Barrage Most affected area Fatehganj West. All villages were evacuated. In some areas, food & other supplies could be done by helicopters.
River Devha	Nawabganj	2010: Due to excessive discharge from Nanak Sagar Dam. Villages Baherjagir, Jarpa Mohanpur, Amirnagar, etc, of Nawabganj Tehsil were affected. Situation was under control.
River Dhaura	Baheri	2010: Excess water was discharged from Dhaura Lake. Tehsil Baheri was affected. Situation under control.
River East Behgul		2010: Flood situation occurred, but under control.
River Apsara	Nawabganj	
River Ramganga	Fatehganj West, Meeganj, Faridpur	2010: Due to 4.00 lakh cusec water discharge from Kalagarh Dam Critical situation in flood. 2011: Moderate flood situation, under control.

DRAUGHT MATRIX

Partial draught was experienced in Bareilly District due to rainfall being below average. The trend of draught situation in previous years prevailed as below:

YEAR	CROP LOSS
1981	35%
1986	30-40%
1987	30-40%
1989	30-40%
1991	30-40%
2014-15	Below 50%
2015-16	Below 50%
2016-17	Below 50%

INDUSTRIAL PROFILE OF MAH INDUSTRIES IN DISTRICT BAREILLY

As per the latest information available there are eight functional Major Accident Hazard (MAH) units in District Bareilly. A list of these 8 functional Major Accident Hazard (MAH) units in the District Bareilly is given at Table

Major Accident Hazard (MAH) Units in District Bareilly

Sr. No.	MAH UNIT	Hazardous Material being Manufactured, Handled, Stored or Imported	ON Site Plan
1.	IFFCO Aonla, District Bareilly	CHLORINE 14400 KGS AMMONIA 20000 MT NAPHTHA 22000 KL	YES
2.	BHARAT PETROLEUM LPG BOTTLING PLANT Parsakhera, Bareilly	L.P.G. Mixture of Butane (C ₄ H ₁₀) & Propane (C ₃ H ₈) having ratio 45:55	YES
3.	INDIAN OIL CORPORATION LIMITED (MARKETING DIVISION) Aonla, District Bareilly	MS 1800 KL HSD 14108 KL SKO 3440 KL ETH. 128 KL ATF 7870 KL	YES
4	BHARAT PETROLEUM CORPORATION LIMITED (MARKETING DIVISION) Aonla, District Bareilly		YES
5	HINDUSTAN PETROLEUM CORPORATION LIMITED (MARKETING DIVISION) Aonla, District Bareilly	MS 1700 KL HSD 4800 KL SKO 2000 KL ETH. 570 KL	YES
6	MARYA FROZEN FOOD LIMITED Mohanpur, Shahjananpur Road, Bareilly	AMMONIA 6 MT	YES
7	VADILAL INDUSTRIES LTD. Parsakhera Indl. Area, Bareilly	AMMONIA 2 MT	YES
8	Brindavan Beverages Parsakhera Indl. Area, Bareilly	AMMONIA 1 MT	YES

SUGGESTED APPROXIMATE SEPARATION DISTANCE FOR MAJOR HAZARD WORKS

Substance	Largest tank size (t)	Separation distance (m)
Liquefied petroleum gas, such as propane and butane, held at a pressure greater than 1.4 bar absolute	25-40	300
	41-80	400
	81-120	500
	121-300	1000
	25 or more, only in cylinders or small bunk tanks of upto 5 te capacity.	100
Liquefied petroleum gas, such as propane and butane, held under refrigeration at a pressure of 1.4 bar absolute or less	50 or more	1000
Chlorine	10 -100	1000
	More than 100	1500
Hydrogen fluoride	10 or more	1000
Sulphur dioxide	20 or more	1000
Hydrogen cyanide	20 or more	1000
Carbon disulphide	20 or more	250
Liquid oxygen	500 or more	500
Ammonia (anhydrous or as solution containing more than 50% by weight of ammonia)	More than 100	1000
Hydrogen	2 or more	500
<i>Classes of substances not specially named</i>		
Gas or any mixture of gases which is flammable in air and is held in the installation as a gas (except low pressure gasholders)	15 or more	500

A substances or any mixture of substances which is flammable in air and is normally held in the installation above its boiling point (measured at 1 bar absolute) as a liquid or as a mixture of liquid and gas at a pressure of more than 1.4 bar absolute.	25 – 40	300
	41 – 80	400
	81 – 120	500
	121 – 300	600
	More than 300	1000
	25 or more only in	1000
	cylinder or small bulk	
	tanks or up to 5 te capacity	
A liquefied gas or any mixture of liquefied gases which is flammable in air, has a boiling point of less than 0°C (measured at 1 bar absolute) and is normally held in the installation under refrigeration or cooling at a pressure of 1.4 bar absolute or less	50 or more	1000
A liquid or any mixture of liquids not included in items 1-3 above which has a flashpoint of less than 21°C	10000 or more	250

CHAPTER 3

INSTITUTIONAL ARRANGEMENTS for DISASTER MANAGEMENT

DISTRICT CRISIS GROUP (DCG) OF DISTRICT BAREILLY

DCG Comprises the following members:

Sr.	Member Designation	
1.	District Magistrate	Chairperson
2.	ADM (F/R)	Nodal Officer
3.	Deputy Controller, Civil Defence	Member Secretary
4.	Senior Superintendent of Police, Bareilly	Member
5.	Civil Surgeon, Bareilly	Member
6.	Regional Manager, U.P. State Transport Corporation	Member
7.	District Information Officer ,	Member
8.	General Manager, District Industries Centre	Member
9.	Regional Officer, U.P. State Pollution Control Board,	Member
10.	Executive Officer, Municipal Council,	Member
11.	Officer In charge, Public Health	Member
12.	Sub Divisional Magistrate	Member
13.	Chief Fire Officer, Bareilly	Member
14.	Station Fire Officers (All Fire Stations in Bareilly District)	Member
15.	Executive Engineer, Agriculture	Member
16.	Executive Engineer, PWD	Member
17.	Assistant Director of Factories	Member

**DUTIES & RESPONSIBILITIES OF NODAL OFFICER (ADM F/R)
(IN CASE OF DISASTER IN THE DISTRICT)**

Pro Active (Pre-Disaster):

1. The ADM (F/R) being Nodal Officer of the DCG, will function as overall in charge of all emergency operations to deal with the Disaster arising anywhere in the district.
2. The ADM (F/R) constitute the District Crisis Group in accordance with the Govt. Notifications S.O. 55/CA (EPP and R.) R.1996/R.8/ /2001.
3. ADM (F/R) will arrange assessment of possible major hazards in the district with special focus on major hazard industry/ installations, major railway/ road accidents, air raids and the natural calamities, e.g. Earth quake, flood, lightning etc.
4. ADM (F/R) will arrange to conduct the assessment of facilities and equipment available with all departments & organizations and to suggest improvement for the up gradation of facilities and equipment for dealing with emergency. For the purpose the ADM (F/R) may seek services of experts.
5. ADM (F/R) will formulate District Disaster Management (DDM) Control plan in order to mitigate the effects of disaster so as to minimize the loss of life property & environment. Nominate additional DDM Controller or his subordinate to take charge of control room in case of disaster.
6. ADM (F/R) will establish the District Disaster Control Room with suitably skilled person for taking action in case of emergency and to equip it with necessary information; documents; route map; MSDS; and sufficient & effective means of communication.
7. ADM (F/R) to issue instructions & standing order to all departments, organisation, industries and services to prepare and act in accordance with the District Disaster Management Plan.
8. ADM (F/R) should be familiar with the major hazardous industries and installation as well as possible effects of natural calamities.
9. ADM (F/R) will ensure the training of all the members of DDM/P.
10. A DM (F/R) will ensure awareness in respect of the public emergency preparedness through News Paper, Radio, T.V. & D. P.R.O. etc.
11. ADM (F/R) will arrange periodical mock/ training exercise to ensure optimum operational preparedness.
12. ADM (F/R) will review the efficiency of the DDM/P, based on Mock drills & trainings.

During the Disaster / Emergency / Incident:

1. On getting information of the Disaster / Emergency / incident District Magistrate will contact the site incident Controller & other sources of information for detailed information regarding the level of emergency.

2. If he/she is satisfied that the emergency is major he/she will immediately put all the emergency services into action as per procedure laid down in the District Disaster Management Plan. After that he/she will rush to the scene of emergency, if it is localised to assess the gravity of the emergency.
3. He/she will ensure the arrival of all the emergency services at the site.
4. He/she will direct and co-ordinate the activities of various agencies involved in the emergency operation like fire fighting, rescue operation, evacuation of employees and General public, shifting of injured to hospitals and management of casualties.
5. He/she shall keep in constant touch with District emergency control room.
6. The ADM (F/R) will regularly take latest information of the situation.
7. He will direct the rescue operations.
8. He/she will Seek help from State crises group and Central Crisis group, adjoining Districts and Central Government if required.

After the disaster / incident :

1. ADM (F/R) will declare the emergency to be over.
2. He/she will arrange for the rehabilitation of evacuated public.
3. He/she will ensure essential amenities for the public.
4. He/she will keep watch on any disease/ epidemics due to and after effects of the emergency.
5. He/she will arrange for the treatment rehabilitation of effected employees and public.
6. He/she will provide relief under public liability Insurance Act 1991.
7. He/she will investigate the cause of accident/ major emergency or constitute an investigating committee.
8. He/she will arrange for the implementation of remedial action to prevent the recurring of emergency based on investigation.
9. He/she will keep records of weakness/ shortfalls/ lapses and causes of failure of disaster control management plan during emergency operation and suggest measures for improvement.

DUTIES DEPUTY CONTROLLER, CIVIL DEFENCE

1. D.C., Civil Defence along with the team of Wardens, will assist the Nodal Officer.
2. A.D.Cs of Civil Defence along with Civil Defence Wardens will assist the respective disaster management teams.
3. Civil Defence has formed a QRT (Quick Response Team). QRT is a team of well trained Civil Defence Wardens who are trained in
 - Fire Fighting
 - First Aid
 - CPR
 - Rescue Procedures
4. Civil Defence Wardens will cooperate the Emergency Services in
 - Rescue & Relief Operations
 - Disaster Mitigation Operations
 - Rehabilitation Operations
 - Post Disaster Management

DUTIES AND RESPONSIBILITY OF CHIEF FIRE OFFICER / FIRE STATION OFFICER

Pro Active (Pre – Disaster):

1. Chief Fire Officer (CFO)/Fire Station Officer (FSO) should be well aware of the location and type of hazard along with respective potential hazardous installation as well as the level of possible emergencies.
2. CFO/FSO should be familiar with works incident controller and key personal of each unit and their role.
3. CFO/FSO should be familiar to deal with the leakage of flammable toxic substances.
4. CFO/FSO should keep a list of adverse effects of chemicals and methods to deal with emergency involving each chemical in each unit.
5. CFO/FSO should prepare the team to attend the emergency on each particular location.
6. CFO/FSO should review the adequacy of existing facilities available with fire service Deptt., concerned major hazard units and suggest/ arrange to procure the additional equipments / facilities.
7. CFO/FSO should review the adequacy of fire prevention arrangements in each unit (before and after the installation) and suggest to make adequate fire prevention arrangements.
9. CFO/FSO should involve in on site emergency rehearsals/ mock drills.
10. CFO/FSO should identify roads/ routes of access and escape.

During the incident :

1. After getting the information, CFO/FSO should quickly rush to the scene of emergency.
2. CFO/FSO should take charge of fire fighting and rescue operations from works main controller and start the fire fighting operation.
3. CFO/FSO should assess the level of emergency and inform district administration to take further action for evacuation.
4. CFO/FSO will evacuate the public from inside the building.
5. CFO/FSO will co-ordinate fire fighting activities of mutual aid group and the concerned unit.
6. CFO/FSO will co-ordinate the operation to stop leakage or release of flammable / toxic substance.
7. CFO/FSO will keep in touch with site incident controller of the industry and district administration.
8. CFO/FSO will advise the district administration for the development of additional fire fighting personnel/ requirement of additional equipment etc.

9. CFO/FSO will seek help of police/ civil defence in fire fighting operation.
10. CFO/FSO will safe guard the adjacent property/ population from fire by confining the fire spread.
11. CFO/FSO will search for injured/ trapped/ burried persons and casualties and take them out for First aid/ Medical aid.

After the Disaster (Post Incident) :

1. CFO/FSO will ensure that there is no chance of re-ignition of fire/ leak / release at site before leaving the site.
2. CFO/FSO will search for injured / casualties etc.
3. CFO/FSO will make record of damages/ casualties / losses.
4. CFO/FSO will make record of fire fighting facilities used.
5. CFO/FSO will record the lapses/ promptness in action during fire fighting operation.
6. CFO/FSO will check the conditions of drains/ Storm drain for the presence of harmful substances.
7. CFO/FSO will investigate into the cause of fire in collaboration with investigating officer and suggest remedial measures for future.

DUTIES AND RESPONSIBILITY OF SENIOR SUPERINTENDENT OF POLICE (SSP)

Pro Active (Pre – Incident) :

1. SSP should set up and maintain the emergency control room.
2. SSP should constitute teams to deal with emergency in different area on call and assign duties to SHO's of the area concerned.
3. SSP should arrange for the participation in rehearsal.
4. SSP should arrange for public address system and siren.
5. SSP should arrange to explain evacuation procedure to general public.
6. SSP should make arrangement for evacuation and dealing with Injured/ casualties.
7. SSP should plan for traffic control for different areas.

During the incident:

1. SSP should rush to the scene of emergency.
2. SSP should be in regular contact of control room and District Magistrate.
3. SSP should take charge of fire fighting, rescue and evacuation operation.
4. SSP should arrange to send the Injured/ affected persons to hospitals.
5. SSP should arrange to control the traffic.
5. SSP should arrange to cordon off/ barricade the affected area.
6. SSP should maintain the law and order in the area.
7. SSP should declare and arrange for the evacuation of general public to a predetermined safe place & communicate with General public.
8. SSP should arrange to guard the public property in the evacuated area.
9. SSP should arrange to search the affected area for injured/ affected person and casualties.
10. SSP should report all significant development and activities to DM.
11. SSP should take/ preserve evidences.

12. SSP should arrange to deal with casualties.
13. SSP should arrange to assist the medical services.
14. SSP should arrange to assist the fire fighting team.

After the incident :

1. SSP should arrange for the rehabilitation of evacuated person.
2. SSP should arrange to put the traffic to normal.
3. SSP should arrange to communicate the situation to general public.
4. SSP should arrange to give information of Injured/ affected persons and casualties to their relatives.
5. SSP should keep the record of injured / casualties.
6. SSP should set up communication center to give information to the relatives of affected persons.
7. SSP should keep watch on law and order situation.

DUTIES AND RESPONSIBILITY OF CIVIL SURGEON (CS)

Pro Active (Pre – Incident):

1. CS should keep a list of hazardous chemicals stored/used.
2. CS should prepare a list of antidote for each chemical.
3. CS should have the estimate of affected persons in case of emergency in each major hazard unit.
4. CS should make necessary arrangements for first aid and affected people in various hospital/ nursing home.
5. CS should keep liaison with all nursing homes and hospitals and have the information of their capabilities along with services available.
6. CS should send notices to all the nursing homes/ hospital to be prepared for emergency specifying the services to be rendered during emergency.
7. CS should plan for medical services area wise i.e. select / appoint the hospitals for each area or unit.
8. CS should arrange/ nominate the medical crew to reach at site for medical aid.
9. CS should arrange for ambulance/ mobile medical aid for affected site.
10. CS should arrange to plan adequate beds for affected persons.
11. CS should arrange to deal with casualties.
12. CS should plan for additional capacity in hospitals.
13. CS should arrange for rehearsal and training of medical staff.
14. CS should arrange for the buffer stock of medicine.
15. CS should establishment of information centre capable of providing relevant information in an emergency on the diagnosis , treatment and rehabilitation of persons injured by chemicals.
16. CS should take part in exercise with the other relevant authorities involved in Disaster Management plan.

During the incident :

1. On getting information CS should rush to the hospital.
2. CS should arrange for relevant emergency medicine, blood and antidote in sufficient quantity.

3. CS should keep in constant touch with DM / SP/ AD to know the scale of emergency and no. of people affected.
4. CS should send the medical crew and ambulances to the affected site for onsite medical aid.
5. CS should ensure the arrival of all medical staff to their pre-assigned locations.
6. CS should inform the various hospital to arrange for immediate medical aid.
7. CS should direct the injured / affected people to different hospital as per premedical plan.
8. CS should coordinate to arrange for the treatment for injured and affected person.
9. CS should take account of the persons attended in the hospitals and admitted for treatment.
10. CS should coordinate to deal with casualties.
11. CS should inform any development or change to District Magistrate.

After the incident :

1. CS should take account of the affected / admitted persons.
2. CS should give directions to arrange for the treatment of the side effects (long term)
3. CS should arrange for research for any kind of chronic disease/ epidemics after the incident due to long term effect of chemicals.
4. CS should arrange to attend the injured people in hospital.
5. CS should report all significant development to DM.
6. CS should arrange to release the people after treatment.
7. CS should record all developments/ treatment given during emergency.
8. CS should give preventive advice and medicine to public.
9. CS should advise the people and district authorities to take particular precaution related with health, in future i.e. preventive measures and medicine.
10. CS should arrange medical camps in affected are for the treatment of general public and study purpose.
11. CS should ensure the availability of essential/ life saving drugs in affected area.
12. CS should arrange for follow up medical examination.

DUTIES AND RESPONSIBILITY OF REGIONAL MANAGER, U.P. TRANSPORT CORPORATION

Pro Active (Pre – Incident):

1. Regional Manager (RM) should be familiar about the probable locations/ installation/ industries where emergency can arise.
2. RM should be well familiar with the routes of the potential hazardous installations.
3. RM should be familiar with the level of emergency and the no. of person to be shifted from the site of emergency.
4. RM should arrange to earmark the safe and shortest route from the probable scene of emergency/ installation to the shelter.
5. RM should arrange earmark the shortest feasible routes to the shelters & hospitals.
6. RM should plan to provide sufficient number of vehicle for evacuation & necessary medical services.
7. RM should arrange to make the evacuation point on which the vehicle will be provided for evacuation of General public at the time of emergency.
8. RM should arrange training to the driver and concerned person in rendering the efficient transport.
9. RM should decide the alternate route for emergency.
10. RM should arrange to maintain the transport in an efficient and roadworthy condition.

During the incident :

1. After getting the information of level of emergency RM should send the required number of vehicles.
2. RM should arrange the sufficient number of vehicle to shift the injured from emergency spot to hospital / camp evacuation.
3. RM should arrange the sufficient vehicle for the casualties.
4. RM should make arrangements for quick repairs of vehicles or to kept ample rescue spare vehicle or repairing part.
5. RM should earmark the vehicle for rescue operation.

After Emergency:

1. RM should arrange to normalise the traffic
2. RM should make arrangement for shifting of general public from shelter to their residence after the situation become normal.

DUTIES AND RESPONSIBILITY OF DISTRICT INFORMATION OFFICER (DIO)

Pro Active (Pre – Incident):

1. DIO should translate the information regarding emergency procedure in the language best understood to the general public in the locality.
2. DIO should publicize the information in the interest of public for awareness through.
 - Booklets/ Pamphlets
 - Radio / television
 - Film shows
 - Newspaper.
3. DIO should arrange the mock drill.
4. DIO should arrange create the awareness among the General public by suitable means like - documentary film/ cable and door-to-door visit, meetings etc.
5. DIO should arrange to involve the person from local community in the emergency evacuation.
6. DIO should arrange for training personnel in emergency response.
7. DIO should provide information to the general public, issued by the District administration from time to time.
8. DIO should liaison with NGO's for participation in Emergency control.

During the incident :

1. After receiving the information immediately DIO should rush to the scene of emergency.
2. With the advise of chief co-coordinator DIO should start the evacuation of affected person by mean of public address system.
3. DIO should ensure the safe route of evacuation.
4. DIO should keep watch on new developments.
5. DIO should provide factual position to the general public about the emergency to avert the panic & rumour situation.

6. DIO should provide the information regarding the nature of emergency and action taken by the Govt.
7. DIO should provide the necessary instruction as issued by the Govt. to the General public at the time of emergency.
8. DIO should ensure the preventive steps are taken by various agencies.
9. DIO should ensure the various agencies, those are participating in emergency control does not receive any complicity in composing message.
10. DIO should be in touch with DM/ SP/ other agencies involved in emergency operation.

After Emergency:

1. DIO should arrange to help in rehabilitation of the affected person by means of providing.
 - Food/ drinking water.
 - Shelter / clothing etc.
2. DIO should develop the good relation between affected, Community Govt. and other agencies.
3. DIO should issue the authentic information to the community, affected persons and mass media.
4. DIO should arrange to mobilize public support after the emergency.
5. DIO should get the feedback from the community with regard to any other new development.
6. DIO should keep in touch with District Administration.

DUTIES AND RESPONSIBILITY OF INDUSTRIAL UNITS (IU)

Pro Active (Pre – Incident):

1. IU should prepare the feasible, practicable On Site Emergency Management Plan based on the respective risks.
2. IU should co-ordinate through district authorities to create awareness among the general public pertaining to the possible emergency due to industrial activity.
3. IU should assist the local administration in establishing the good harmonious relation with general public and other emergency response agencies and provide awareness how to act in case of Off - Site Emergency.
4. IU should create a Emergency Control Room in unit.
5. IU should encourage the most dedicated & other employees in control of the emergency.
6. IU should monitor & ensure that all available facilities for emergency are in good working condition.
7. IU should time to time update the On-Site Emergency Management Plan & Emergency preparedness.
8. Inside the IU roads & means of escape route should be adequately earmarked.
9. According to risk assessment IU should ensure the adequate quantity of water for fire fighting.
10. IU should provide the training to the all concern.

During the incident:

1. IU should mobilize all the emergency resources into action as per plan i.e. control the fire or stop the toxic release if possible and inform all the related agencies. Raise emergency alarm.
2. IU should assess the gravity of emergency and declare emergency.
3. IU should receive outside aid at the control room.
4. IU should help the local administration for safe evacuation.
5. IU should explain the level of emergency to the local administration with facts.
6. IU should co-ordinate with other rescuers & combating operation team.
7. IU should provide the technical guidance to the various operation team & local administration.
8. All key personnel of IU must be keep in touch with local administration.
9. IU should shut down the plant to confine the emergency.

After emergency:

1. IU should declare the termination the emergency after assessment.
2. IU should clean the spot site as soon as possible and dispose-off the harmful substances in safe manner.
3. IU should establish links with general public/ leaders and local administration.
4. IU should keep watch on the situation for any other new development and inform to local administration.
5. IU should help the rehabilitation & salvage team for quick aid.

DUTIES AND RESPONSIBILITY IN MUNICIPAL COMMITTEE (MC)

Pro Active (Pre – Incident):

1. MC should be familiar with major hazard units possible emergency situation their consequences, etc.
2. MC should plan to provide the building/ guesthouses at different locations to establish control room, First aid, Medical centre or shelter at the time of emergency.
3. MC should review the equipments, vehicle, crane manpower etc. for rescue, demolition or salvage purposes in relation to the possible level of emergency.
4. MC should prepare a rescue demolition / salvage team to be rushed to the scene of emergency on call.
5. MC should be familiar with the routes of emergency scene and escape routes.
6. MC should procure the equipment's essential for dealing with emergency.
7. MC should ensure the training of team in emergency operation.

During the incident:

1. Emergency Team formed by MC (MCET) will rush to the scene of emergency immediately on call.
2. MCET will help in rescue and fire fighting by providing the suitable equipments like dumper dozer, crane earthmover etc.
3. MCET will help in taking out the people trapped in the building, plant by removal of debris and other obstruction.
4. MCET will help in taking out the dead bodies from debris.
5. MCET will help to prevent the flow of flammable/ toxic materials into the common drain.
6. MCET will help to drain out the pool of water / excessive water from the site.
7. MCET will help in any construction / demolition activity required for dealing with emergency.

After emergency :

1. MCET will help in removal of debris from the site.
2. MCET will arrange to repair the damaged services like water, sewer line and road etc.
3. MCET will arrange to clean all sewer and a surrounding to protect the general public from disease.
4. MCET to repair the damaged road.
5. MCET will help in normalizing the general life.
6. MCET will arrange for the corps and disposal service.

DUTIES AND RESPONSIBILITY OF SUB DIVISIONAL MAGISTRATE (SDM)

Pro Active (Pre – Incident):

1. SDM should arrange for shelter at different locations for general public with the help of Municipal Corporation and other department in respect of probability of population to be affected.
2. SDM should ake arrangements to help in fire fighting and salvage operation.
3. SDM should plan for food and water supplies in shelter camp with the help of NGO's and Govt. Dept.
4. SDM should create public awareness for emergency procedures i.e. preventive measure and evacuation procedures during emergency.
5. SDM should plan for medical aid with the help of CMO.
6. SDM should plan for rehabilitation in collaboration with the district administration.
7. SDM should co-ordinate the activities of all NGO's and social organisation.
8. SDM should help in developing evacuation procedure and liaison with Public Relation Officer.
9. SDM should plan to help in medical and first aid.

During the incident :

1. SDM should help in fire fighting and rescue operation.
2. SDM should help in evacuation operations.
3. SDM should help the police in maintaining law and order and piece.
4. SDM should help in controlling the traffic.
5. SDM should involve in first aid / medical aid team.
6. SDM should help in dealing with causalities and injured people.

7. SDM should help in providing shelter, food, water and other essential amenities for general public.
8. SDM should help in maintaining relation with public.
9. SDM should help in giving information to the relatives of the affected persons.
10. SDM should arrange to provide all equipment and manpower for dealing with emergency.

After emergency :

1. SDM should help in the rehabilitation of the general public in planned manner.
2. SDM should help in providing the supplies of essential immunities in perfect condition.
3. SDM should help in maintaining the peace and develop confidence in the general public.
4. SDM should help in relief operation.
5. SDM should help in maintaining law and order.

DUTIES AND RESPONSIBILITY ASSISTANT DIRECTOR OF FACTORIES (ADF)

Pro Active (Pre – Incident):

1. ADF should conduct inspection/ examination of the premises, plant, machinery , chemical/ substances in the industries and ensure the adequacy of the safety arrangement by directing the occupier to do so.
2. ADF should examine the adequacy of emergency arrangements in the industries and direct the occupier to take corrective action, if arrangements are not satisfactory.
3. ADF should enforce statutory provisions pertaining to safety in all industrial establishments.
4. ADF should direct the management to prepare and submit on site emergency plan of the industrial units.
5. ADF should direct the management for the hazard assessment of their units by conducting safety audit, HAZOP study, hazard analysis etc. of the units and have the copy of the same to get information and to suggested corrective action.
6. ADF should constitute the mutual and growth of the industries to deal with emergency.
7. ADF should get the sufficient information hazards and mitigation efforts from each industry.
8. ADF should arrange the meeting of District Crisis Group.
9. ADF should participate in preparation of District Disaster Management Plan.
10. ADF should arrange rehearsal of the district disaster management plan and review the plan.

During the incident :

1. ADF should rush to the scene of emergency.
2. ADF should assist the control room and DM in technical manner.

3. ADF should be in constant touch with control room and DM for technical support.
4. ADF should provide guidelines for combating the situation and evacuation of the people.
5. ADF should provide technical support to the works main incident controller.
6. ADF should keep a watch on the overall situation and involve in advising on emergency operation.

After emergency :

1. Arrange for an investigation of the incident and collect information.
2. Keep the DM informed of the investigation and information.
3. Suggest remedial measures to prevent recurrence.
4. Direct the management to implement adequate safety measures suggested by him.
5. Ensure rehabilitation of affected area in safe manner.

DUTIES AND RESPONSIBILITY OF U.P. POLLUTION CONTROL BOARD

1. On receipt of information officer of the Pollution Control Board (PCB) shall proceed to the affected site.
2. PCB should conduct investigation including collection of data.
3. PCB should ensure that the spills have been totally contained with no further damage possible to humans and environment.
4. In the case of any contamination to the environment, PCB to arrange, with the help of the industry and other agencies, decontamination of the area. Further to declare the area fit for re-entry after the decontamination is completed.
5. In case of an environmental disaster, PCB shall, based on the contaminant released in to the environment, carry out with the help of the industry and other agencies, such investigations as may be necessary to establish the degree of contamination. Arrange for suitable decontamination using resources available in the area as well as with the board.

DUTIES AND RESPONSIBILITY OF DISTRICT HEALTH OFFICER (DHO)

Pro Active (Before the Incident):

1. DHO should be aware of locations of potential hazards.
2. DHO should make standby arrangement of generator for running the water pumps.
3. DHO should ensure availability sufficient spare parts.
4. DHO should ensure the availability of site plan of drinking water line and fire water line.
5. DHO should keep sufficient manpower to repair and restore the water supply arrangements.
6. DHO should keep sufficient number of water tanker for the supply of water in emergency.

During the incident:

1. DHO should rush to his/her office.
2. DHO should call the essential persons of PWD department.
3. DHO should be in the state of readiness to attend the damage on call.
4. After receiving the call of damage in water supply system, DHO should send the manpower along with material for repair.
5. DHO should arrange to send the drinking water by tanker in the area where water supply is disturbed.
6. DHO should arrange to start the supply of contaminated water.
7. DHO should arrange for decontamination of water or water sources.

After the incident :

1. DHO should ensure the repair of all water supply arrangement.
2. DHO should ensure the supply of pure water in all areas.
3. DHO should inspect entire system of water supply.
4. DHO should restore water supply in all areas.

DUTIES AND RESPONSIBILITY OF EXECUTIVE ENGINEER – PWD (EPWD)

Pro Active (Before the Incident):

1. EPWD will lead the rescue team.
2. EPWD should be aware of all vulnerable buildings.
3. EPWD should constitute a rescue team of his own department and nominate the employees for rescue team.
4. EPWD should liaise with District authority and give account of all equipments and facilities available with the CPWD department.

During the incident:

1. After getting the information of incident, EPWD should rush to his/her office.
2. EPWD should ensure to call all members of the rescue team and call back all equipments from various site.
3. EPWD should remain in the state of readiness to rush to the site of incident and wait for call.
4. EPWD should get in constant touch with DM and district administration.
5. EPWD should rush to the scene of emergency with all manpower and equipment on request.
6. EPWD should direct rescue operation at site.
7. EPWD should arrange for the recovery of injured/ dead from damaged building.
8. EPWD should make provision of demolition on the request of the service department.

After the incident:

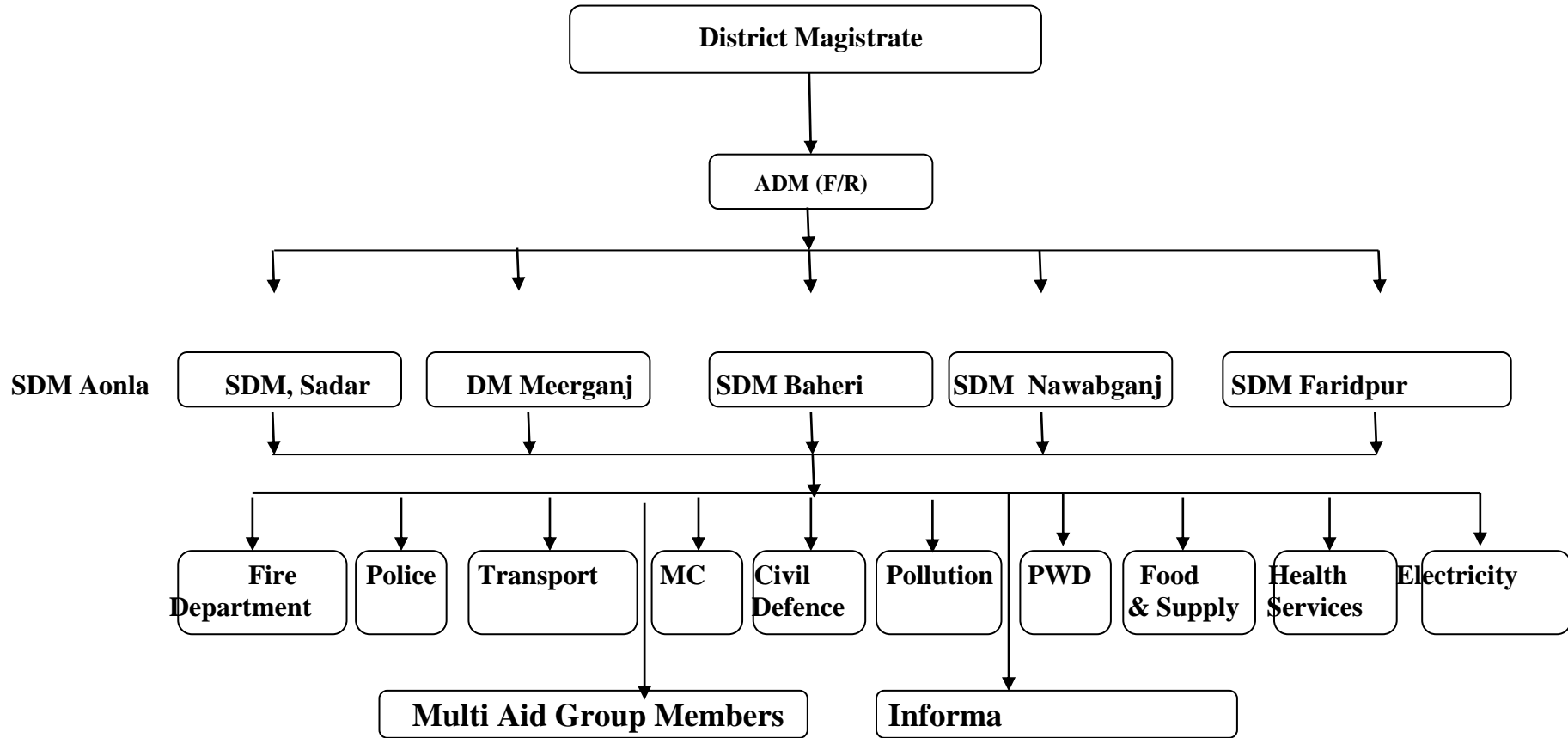
1. EPWD should arrange to demolish the weak structure/ building which are likely to cause hazard to the public.
2. EPWD should arrange to provide the supports or repair the buildings.
3. EPWD should arrange for the repair of roads.
4. EPWD should arrange for the restoration of situation.
5. EPWD should help in removal of debris and contaminated water.

ROLE OF EMERGENCY ORGANISATION FOR THE MANAGEMENT OF DISASTER IN DISTRICT BAREILLY

1	2	3	4	5
FIRE	POLICE	MEDICAL	CIVIL DEFENCE	TRANSPORT
<ul style="list-style-type: none"> • Control of fire • Rescue operation • Control of toxic / flammable release • Guidelines for evacuation • Requisition of additional fire resources • Co-ordination with other emergency service 	<ul style="list-style-type: none"> • Traffic Control & rescue • Cordoning of emergency area • Shifting of injured and casualties • Law and order • Evacuation of general public • Deal with casualties • Guarding the property • Preserve evidence • Watch on new developments 	<ul style="list-style-type: none"> • Care of injured • Ambulance service • First aid arrangements • Arrangements of antidotes • Hospitalization • Mobile Medical Services • Liaison with Distt. Admn. • Establishment of Medical information centre • Shifting of injured and casualties 	<ul style="list-style-type: none"> • Help in fire fighting • Help in evacuation & rescue • Help in shifting the injured • Deal with casualties • Create Public awareness • Rehabilitation • Shelter 	<ul style="list-style-type: none"> • Transport facility for the shifting of injured and evacuation • Change the route of buses • Provide facilities like Recovery vans, crane, manpower, vehicles and maintenance equipments / facilities • Keep the workshops open for any requirements

6	7	8	9	10
INFORMATION OFFICER	INDUSTRIES	NGO / RED CROSS	MUTUAL AID GROUP	MUNICIPALITY
<ul style="list-style-type: none"> • Create public awareness • Evacuation of General Public • Help in rehabilitation • Release of authentic information • Information sharing • Keep watch on new developments 	<ul style="list-style-type: none"> • Put the emergency resources in to action as per plan • Inform to all concerned immediately • Receive out side help. • Render help under mutual aid as per procedure • Explain level of emergency • Coordinate rescue and combating operation • Provide technical guidance 	<ul style="list-style-type: none"> • Help in evacuation • Rehabilitation • First aid and medical aid • Arrange for civil amenities (water, clothing, food, shelter, etc.) 	<ul style="list-style-type: none"> • Participate in mutual aid • Help in fire fighting, rescue, first aid, medical aid and evacuation operation 	<ul style="list-style-type: none"> • Ensure adequate water supply for fire fighting • Help in rescue operation and evacuation • Rehabilitation (water, clothing, food, shelter etc.) • Salvage operation

DISASTER Response Organizational Chart



CHAPTER 4

PREVENTION AND MITIGATION MEASURES

CONTINGENCY ARRANGEMENTS AVAILABLE DURING FLOODS

DEPARTMENT	FACILITIES	QUANTITY
Revenue Department	Megaphone	160
	Foldable Stretchers	185
	First Aid Kit	150
	Safety Helmet	150
	Water Container	150
	Rope Ladders	25
	Dragon Search Light	10
	Aluminium Ladder	8
	Fire Extinguishers	150
	Volunteer Jackets	1500
	Boats/Motorboats	20

PRE FLOOD PREPARATIONS

DEPARTMENT	ACTION PLAN
Irrigation Department	In normal condition, information is flashed on wireless of department & Police, every 6 hours, In case of flood situation, information to be flashed every 2 hours.
Revenue Department	During Flood, ADM (F/R) is the Nodal Officer. He monitors situation & releases orders from District Flood Control Centre. Team of SDMs & Tehsildars work under his guidance.
Health Department	Storage & availability of all required medicines. All necessary arrangements to be made in advance for vaccination.
Animal Husbandry / Agriculture Departments	All necessary arrangements to be made to protect animals from diseases. Fodder to be arranged at high areas.
Police Department	To act according to the information provided by authorities.
Supply Department	Relief Material / food items to be made available. Arrange for basic amenities like kerosene, gud, gram, match box, diesel, etc.
Jal Nigam	Pre monsoon cleaning of all drains. Fogging for mosquitoes. Arrangement of pump sets.
Army / PAC	To keep ready boats / motor boats.
Electricity Department	All defects to be checked & removed for uninterrupted supply of power.

DRAUGHT

CAPACITIES & RESOURCE ANALYSIS

In 2016 all Food Officers / Supply Inspectors are to conduct the survey of their respective Blocks / Tehsils, based on the Draught Matrix of previous years, and list the draught prone areas. They are responsible to ensure & prepare a data regarding availability of basic necessities, which may be required in respective area, with whole sellers & retailers. This is necessary, so that Administration is aware as to provide these amenities to the victims in shortest possible time. The data collected should be as per tabulation below:

VILLAGE	TEHSIL/BLOCK	SHOP- Name, Address, Phone	Amenities available with quantity	If shortfall as per required, other sources		

DRAUGHT RELIEF POSTS

To keep a watch on the situation, Draught Relief Posts to be established in draught prone areas. All necessary staff, with required vehicles & resource data should be available there. All concerned officials have been instructed to keep vigil & be in regular touch with Disaster Management Teams.

CONTROL ROOM

District Control Room has been established to give quick relief to draught hit areas/victims. Nos. of Control Room are:

0581-2550076

18001803817 (Toll Free)

Every distress call is being recorded in computer. On receiving a call, immediately, it is forwarded to concerned department for action. Even the caller gets the response on his/her mobile regarding the action taken.

FUEL SUPPLY

In order to maintain fuel supply during draught, instructions have been given to the concerned dealers to maintain minimum stock as below:

AGENCY / DEALER	FUEL	MINIMUM STOCK
Petrol Pumps	Petrol	1000 liters
	Diesel	2000 liters
Gas Agencies	LPG	100 cylinders
Kerosene Dealers	Kerosene	1000 liters

POWER SUPPLY

Contingency arrangements pro-actively made by Electricity Department:

REPLACEMENT OF TRANSFORMERS: Back up arrangements made by department itself & with the help of outside agencies to arrange replacement of defective transformers, if any.

POWER SUPPLY AS PER ROOSTER: All arrangements made to ensure electric supply as per rooster to the villages.

DRINKING WATER FACILITIES AVAILABLE

In Bareilly district, drinking water facilities are as below:

FACILITY	QUANTITY	MAINTENANCE/CONTINGENCY ARRANGEMENT
Tube Wells	59 Nos.	Spare pump sets available in sufficient nos.
		In case of failure in tube well, it can be made functional within 12 to 24 hours
Over Head Tanks	25 Nos. with total capacity 24365 KL	Thoroughly cleaned twice in a year.
Chlorination of Drinking Water	Chlorine dozers attached with each tube well.	Spare Chlorine dozers are available in sufficient nos.
		Department team conducts O.T. Test of potable water on regular basis.
		Water sample is being sent to State Health Institute for testing on monthly basis.
Water Tankers & Tractors	16 water tanker 2 tractors	These are available to supply water to the areas with drinking water scarcity.
		In emergency, extra tractors can be outsourced.
India Mark II Hand pumps	2721 Nos.	In case of fault, these are repaired within 24 to 4 hours.
		Spare India Mark II hand pumps are available in sufficient nos.
Mobile Generators (125 KVA)	6 Nos.	In case of major or prolonged electric fault or power cut, these can be used to operate Tube Wells.
		In case of emergency, more Generators can be outsourced.

CAPACITIES OF OVER HEAD TANKS

OVER HEAD TANK LOCATION	CAPACITY
Water Works Compound near Hartmann College	1200 KL
Near Sant Kripal Ashram	2100 KL
Behind Irrigation Department, Madhinath	1150 KL
Near BSA Office	1050 KL
Greater Kailashpuram, Patel Vihar	1950 KL
Pawan Vihar	1600 KL
Harunagla	1700 KL
Sanjay Nagar Bhairon Nathupuram	1750 KL
Awas Vikas Colony, near Bankhandi Nath Temple	1500 KL
Shiv Garden, behind Rohilkhand University	950 KL
Munshi Nagar, Delapeer	1000 KL
Veer Savarkar Nagar	750 KL
Bandia Vidyalaya	900 KL
Rehpura Junior High School	1500 KL
Karmchari Nagar, Triveni Park	400 KL

Vis hwanathpuram	1200 KL
Swale Nagar, Trenching Ground	1500 KL

PRO ACTIVE PLANNING OF REVENUE DEPARTMENT w.r.t. DRAUGHT

- 1 Lekhpals inspect & check all potable water resources physically.
- 2 In case of draught & scarcity of potable water, tankers are available and kept ready to maintain the supply.
- 3 With the help of Gram Pradhans under MNREGA, Lekhpals get all potable water wells & India Mark II hand pumps cleaned & maintained/repaired.
- 4 If required, to get all ponds nearby population to be filled with the help of Irrigation Department and Government/Private tube wells. This activity is being done to facilitate drinking water for cattle & other animals.
- 5 All tube well are inspected pro actively by lekhpals. On being found defective, these are got maintained & repaired with the help of Tube Well Department. For timely & easily sowing of crops during draught, help of Canal Department is being taken to supply water I canals as per rooster.
- 6 Availability of diesel is ensured for tube wells & private pump sets. In order to supply power as per rooster, help of Electricity Department is being taken.
- 7 Illegal cuts in canals is being checked with the help of police & village volunteers.
- 8 Survey of transformers is being done by lekhpals, so that defective ones can be repaired/replace in advance.
- 9 Cattle fodder availability is ensured in sufficient quantity. For emergency, Government Agriculture Farm, Bilwa is instructed to keep & supply required stock, as & when needed.
- 10 All medical & Health Service are kept ready & at alert so as to protect human beings & animals from Heat Stroke, Communicable Diseases & Epidemics.
- 11 Pro active arrangements for stocks of food items & other basic amenities are being done with the help of Supply Department.
- 12 If required, farm labourers are given employment in other fields like road construction, under MNREGA Scheme.
- 13 All necessary arrangements ar being made, especially for elders, children, disabled & ladies, in order to avoid malnutrition.
- 14 Necessary arrangements are being made, with the help of Agriculture Department, to provide, seeds of substitute crops, fertilizers & pesticides.
- 15 Help of Police department is being taken to have a control over anti-social elements, who become active during disasters.
- 16 All lekhpals are being instructed throuht SDMs that there should not be any death due to scarcity of food.
- 17 If required, be prepared to establish Draught Relief Camps at Tehsil Headquarters & to immediately provide relief.
- 18 In case of draught, Draught Control Centres will be established as below:

S. No.	DRAUGHT CONTROL CENTRE	PHONE NUMBER
1	District Head Quarter	Fax 0581 – 2457150 CUG 9454417595
2	Tehsil Bareilly	CUG 9454418005
3	Tehsil Baheri	CUG 9454418006
4	Tehsil Aonla	CUG 9454418007
5	Tehsil Nawabganj	CUG 9454418008
6	Tehsil Faridpur	CUG 9454418009
7	Tehsil Meerganj	CUG 9454418010

PRO ACTIVE PLANNING OF AGRICULTURE DEPARTMENT w.r.t. DRAUGHT

- 1.If monsoon is delayed after 10th July or further, dhaan (rice) crops requiring less reaping time are sown.
- 2.If due to delayed monsoon, paddy could not be sown & the fields are left vacant, crops like bajra, urd, moong & til are preferred.
- 3.If monsoon is in time, but a dry gap prevails in mid monsoon, in order to protect sown crops, following actions are being taken:
 - Special care is being taken while planning rooster for canals.
 - To ensure reaching of water up to termination of canals
 - Illegal cuts in canals are avoided.
 - Ensure that all tube wells are kept functioning. In case of any failure, immediate action to be taken.
 - Ensure regular, uninterrupted supply of diesel / power.
 - Farmers are trained & motivated to preserve soil moisture using inter-culture & mulching techniques.

AREA WISE LIST OF PERSONS TO RESPONSIBLE TO ARRANGE FODDER/WATER FOR CATTLE DURING DRAUGHT

S. No.	VILLAGE		VETERINARY HOSPITAL & NUMBER	CONTACT PERSON – Name & No.
1	Faiz Nagar	Faiz Nagar	Bhutah	Sh. Shyam Behari Mishra
2	Ratna	Ratna	Sainthal	Sh. Hori Lal
3	Sundari	Sundari	Klodia	Sh. Babu Ram
4	Rithaura	Rithaura	Bithri Chainpur	Sh. Netra Pal Singh
5	Ismailpur	Kesarpur	Bithri Chainpur	Sh. Surjeet Singh
6	Milak Bhandara	Sardar Nagar	Bhamaura	Sh. Ishupal
7	Trikunia	Ballia	Bhamaura	Sh. Veerpal
8	Bibiapur	Byodhan	Shahi	Sh. Sukhpal
9	Dhaneta	Dhaneta	Meerganj	Sh. Dharmdutt Dixit
10	Diwana	Diwana	Meerganj	Sh. Prempal Singh
11	Kyara	Kyara	Kyara	Sh. Santosh
12	Simraboripur	Simraboripur	Kyara	Sh. Satyadev
13	Raipurhans	Raipurhans	Faridpur	Sh. Rajeshwar Singh
14	Shivpuri	Tar Khaas	Fatehganj East	Sh. Surendra Pal Singh
15	Mehtarpur	Mehtarpur	Kuadanda	Sh. Patthu Lal
16	Mehtarpur	Mehtarpur	Kuadanda	Sh. Rambabu

17	Barsia	Bhaua Bazar	Klodia	Sh. Narottam Singh Gangwar
18	Rupapur	Rupapur	Bithri Chainpur	Sh. Salikram
19	Gaini	Gaini	Majhgawan	Sh. Bhagwan Singh
20	Kamua	Harharpur	Nawabganj	Sh. Pratap Singh
21	Rehpuraganeemat	Rehpuraganeemat	Devrania	Sh. Prempal Singh
22	Angadpur Khamaria	Angadpur Khamaria	Faridpur	Sh. Mewaram
23	Jaraul	Jaraul	Fatehganj East	Sh. Puran Singh
24	Itaua Sharifnagar	Itaua Sharifnagar	Shergarh	Sh. Raghunandan Prasad
25	Semalkhera	Bhudhia Colony	Baheri	Sh. Buta Singh
26	Guladia	Guladia	Majhgawan	Sh. Sevaram

For Static Emergencies:

The Action Plans given below are for control room, are of generic nature. It is better to take them as reminder. All these instruction will have to be understood along with the specifics of the site of the factory and hazard being considered. The dovetailing and action details will have to be worked out case by case as we are not opting for the specific individual off-site plan for each factory. At simulation/ drills level it is expected to overcome these shortcomings which are basically due to generalisation in the approach to planning.

Upon receiving information from facility (or any other agency) regarding an accident with offsite consequences, the Control Room shall take the following actions in accordance with the roles and responsibilities :

1. Inform the nominated technical experts to assemble in the Control room.
2. Inform City Magistrate / SDM through police wireless network of need for local level action.
3. Inform response agencies e.g. fire, medical, industry to reach the area where their assistance would be required.
4. Advise neighbouring communities to take protective action based on the advise of the experts. Some of the common advise can be:
 - Keep calm and follow instruction.
 - Keep windows closed and remain inside the house
 - Keep wet cloth or handkerchief over your nose and

- Evacuate area and proceed cross wind.

5. Based on prevailing wind direction, evaluate vulnerable area requiring attention.

6. With the help of technical experts available, take emergency action as required. This can be as follows :

- Cordon off the area affected and regulate traffic.

- Maintain law and order in the area.

- Ensure safety and security of the affected area

-Organize evacuation if required,

-Protect evacuee property, and

-Co-ordinate emergency operation with other agencies.

-The District Control Room shall also take the following action upon receipt of information :

7. Inform the Deputy Commissioner and Superintendent of Police of the incident and provide them with continuing information based on progress in the field.

8. Arrange for the Directorate and Pollution Control Board and industrial safety & health to be informed of the incident.

9. Perform such tasks as may be required by the District Magistrate / SSP in mobilising additional resources for emergency response.

10. Keep communication channel open for emergency purposes.

Action Plan for Transport Emergencies:

Upon receipt of information regarding transport emergencies, the police shall proceed to the location and take the following precautions and actions as outlined in the roles and responsibilities outlined.

- Inform nominated technical expert nearest to the area to reach the spot of the incident for assistance.

- Approach incident from an upwind direction, if possible.

- Do not walk into or touch any spilled material.

- Avoid inhaling fumes, smoke or vapour unless specifically cleared by technical expert. Do not assume that gases or vapours are harmless because of lack of smell.

- Use the Transport Emergency Guide and isolation/ evacuation table for initiating

emergency action.

- Evaluate person from the area and building as far as recommended in evacuation table.
- Isolate to a distance of 800 m. in all directions in the event of a tanker fire.
- Observe suitable personal protection e.g. full protective clothing, SCBA, Canister masks etc. as recommended.
- Regulate traffic to enable response personnel to take emergency action.
- Do not allow use of water where this is contra-indicated and
- Clothing and equipment of response and other personnel involved in the area of the accident should be decontaminated as soon as possible after contact occurs.

(iii) Appointment of key personnel or Emergency Management Structure:

The emergency management structure of the district is given in Disaster Organization Chart. The functions of the various agencies are briefly described in the structural diagram.

Apart from the emergency management structure various Govt authorities are entrusted emergency services as under:

1. Chief District Emergency Controller	ADM (F/R)
2. Casualty Service	Civil Defence, Civil Surgeon
3. Rescue Service	Executive Engineer, CPWD Fire Officer & Civil Defence
4. Transport Service	RM, U.P. Transport Corporation
5. Telecommunication Service	G.M. Telecommunication
6. Welfare Service & Shelter	City Magistrate / SDM assisted by DIO, Municipal Council, Food & supply, Red Cross, Civil Defence Wardens, NGOs
7. Salvage Service	SDM
8. Corps Disposal Service	Sanitary Inspector
9. Fire Fighting/ Combating Service	Fire Officer
10. Law and Order & Traffic service	S.P.
11. Water Supply & Sewerage	Executive Engineer Public Health

12. Electricity Executive Engineer

UPSEB

13. Food & Supply

District Supply Officer and
Red cross/ NGO

14. Technical Advisor

Asstt. Director of Factories

15. Evacuation

DIO assisted by Police, Fire
Service & Transport

16. Sanitation

Municipal Council & Public Health

CHAPTER 5

PREPAREDNESS

MEASURES

The Control Room :

The control of crisis during major accidents is to be exercised through a Control Room established at an easily accessible central location in the area. This control Room should be capable of functioning on being required to be activated at any time. The Control Room for offsite plan is thus over and above the Control Room set up by each unit for its on-site plan. The

Control Room shall :

- (i) Act as a focal point of emergency management.
 - (ii) Keep records of all messages.
 - (iii) Inform operation officer on receipt of first information relating to accident.
 - (iv) Monitor implementation of mutual aid.
 - (v) Serve as the focal point for meeting of the Crisis management group (CMG).
- In order to operate the Control Room round the clock, manpower and transport are required on a shift basis. The Control Room should be equipped with proper communication system, data processing network and should be a storehouse of information to combat emergencies.

Communication Network System:

An efficient and reliable communication system is required for the success of the off-site emergency plan. The efficient communication system is required to alert :

- (a) Off-site Emergency Authorities and services.
- (b) Neighbouring factories in the area and public in the vulnerable zone.

A communication network of the following type may be helpful :

- (i) Radio communication between District Control Room to Unit Control Rooms of the Industrial Unit and respondent outside the area.
 - (ii) Hotlines between Control Room to industrial units and Emergency Services, Meteorological Station and the Media.
 - (iii) Paging system with the Control Room for alerting the members of the CMG and Operation Response Group.
 - (iv) Data processing Network hooked to all Computers / PCs.
- A Communication flow chart is to be prepared and kept in the Control Room. An up-to-date Telephone Directory of key personnel concerned with the emergency should be available at all times.

In coordinating the communication system efficiently, there should be a Communication Officer

in Control Room to ensure that all the modes of communication are functional round the clock. All communication operators should maintain a log-book for the message received in/ out and actions taken. These activities should be incorporated in the data processing system.

Warning System:

In an off-site Management Plan, one of the most important pre-requisites a good 'Warning System'. Efficient warning system will save lives, prevent injuries and reduce losses. Emergency Commander will decide the appropriate Warning System and implement it. The Superintendent of Police will be responsible for implementation of the Warning System. The Warning Systems are of the following types :

(a) **Disaster Warning:** (Maximum Credible loss Scenario)

High pitched continuous wailing siren

(b) **Fire/ Toxic Release:**

Long Siren followed by short Siren

(c) **All Clear:**

Long Continuous

Note: Depending upon the nature of hazards and the area affected, other methods of warning may be used as follows :

(a) Out-Door Warning Siren

(b) Public Address System with Police

(c) ARP Sirens

(d) Mass media

(e) Door to Door visit by Civil Defence Personnel.

(f) Telephonic contact with schools and other organisation / public institutions.

(g) Information to be provided at common gathering places such as Canteens, Shops etc.

Public Information System:

During a crisis following an accident, the people of the area and large number of media representatives would like to know about the situation from time to time and the response of the district authority to the crisis. It is important to give timely information to the public in order to prevent panic and rumour mongering. The emergency public information could be carried out in three phases.

(a) **Before the Crisis:**

This will include the safety procedure to be followed during an emergency through posters, talks and mass media in different languages including local languages. Leaflets containing do's/ dont's should be circulated to educate the people in the vicinity.

(b) During the Crisis:

Dissemination of information about the nature of the incidents, actions taken and instructions to the public about protective measures to be taken, evacuation, etc. are the important steps during this phase.

(c) After the Crisis:

Attention should be focussed on information concerning restoration of essential services, travel restrictions etc.

Various tasks of the public information system could include :

- (a) Quick dissemination of emergency instructions to the public.
- (b) To receive all calls from media/ public regarding emergency situations and respond meticulously.
- (c) Obtain current information from the Central Control Room.
- (d) Prepare news release.
- (e) Brief visitors/ media.
- (f) Maintain contact with hospital and get information about the casualties.

Fire Fighting System:

The industrial areas having major accident-prone hazardous installations should have special fire fighting arrangements. In most of the industries, gaseous hydro-carbons or liquid hydrocarbons having low flash points are used thereby posing great risk of fire explosion, spillage of hazardous liquid or release of toxic gases. In order to tackle such possible situations, there is need for constant preparedness to mobilise all available fire fighting and toxicity control resources in minimum time. There should be an inside control of all fire fighting resources in the affected areas under the overall fighting resources in the affected areas under the overall charge of the Fire Officer. The operational response will be coordinated from the Central Control Room. The planning for fire fighting should be as follows :-

(a) Before the Crisis:

- (i) Proper road and means of escape should be identified.
- (ii) Considering the possible hazards, there must be adequate water supply.
- (iii) Training of the personnel in fire fighting duties in the industry.
- (iv) Provision of adequate and proper arrangement of fire fighting vehicles is important.

(b) During the Crisis:

Immediate response to an emergency should be coordinated by the Control Room by matching all the resources. In a major emergency having wide off-site implications, more than one industry would be affected necessitating concurrent fire fighting operations at a number of places. In this case, the whole area may be divided in different fire zones. The task of the fire zone commanders should be as under :

- (a) Command and control of all fire fighting resources in the respective fire zones.
- (b) Deployment of additional fire resources allocated by Control Room.
- (c) Coordination of fire fighting institutes.

Mutual Aid:

All the industrial units in the affected areas should have mutual aid arrangement for getting/ extending help in fire fighting facilities, special fire fighting agents, trained manpower etc. The Control Room will allocate additional resources to fire zone including protective equipments kept centrally as a pool.

Health & Medical:

A major off-site emergency in an area may affect a number of units and the surrounding colonies resulting in more casualties. The medical response plan has to cater for immediate pooling of all available medical resources and provide emergency medical treatment to the victims of the incident. For an emergency from poisoning, a reference is invited. A coordinated utilisation of all available local medical resources in the incident areas as well as the additional resources should be mobilised under the overall charge of the District Health Department. The operational response should be coordinated by the Civil Surgeon from the Control Room.

Before the Crisis, the following actions should be carried out :

- (i) Specialized training of doctors relating to chemicals hazards.
 - (ii) Blood grouping of all employees working in the industrial unit
 - (iii) Maintenance of list of blood donors GroupWise.
 - (iv) Arrangement of adequate buffer stock of essential medicines.
 - (v) Stocking of anti-dotes and special medicines for hazardous substances.
 - (vi) Planning of additional capacity in the base hospital for large-scale casualties.
- During the crisis, medical plan in terms of manpower, transport and equipment as per organizational response be implemented. The organizational response structure should be set up as under:-

- (a) First - aid Post
- (b) Casualty Response Centre
- (c) Base Hospital.

It is essential to guide medical relief and establish public health measures like sanitation immunization. etc. In the absence of proper information about the chemical exposure, their symptoms, first aid and treatment, the physicians attending such emergencies are generally faced with great problems. Information on some widely used toxic chemicals is compiled and given in Annexure- 6.

Transportation:

A large number of ambulances would be necessary to transport casualties to the casualty response centre and base hospital. For this purpose, jeeps/ matadors/ special wagons which can be converted as ambulance at short notice should be kept at the unit and the Control Room.

Security & Police :

Security, protection of life and property and traffic control and maintenance of law and order are the traditional and statutory functions of the police. During an emergency, duties and responsibilities of the police may be :

- (a) Cordoning of the incident area
 - (b) Warning public about the hazards
 - (c) Traffic Control
 - (d) Assist fire fighting services
 - (e) Assist first aid and medical teams
 - (f) Assist evacuation and ensure protection of property in evacuated areas.
- control of security operations in the area should be exercised by the Superintendent of Police. Different phases of emergency management practices would be as under :

(a) Before the Crisis:

Contingency plan of manpower, transport and communication network to coordinate possible incident areas and to regulate traffic should be made for each industry in the area.

(b) During the Crisis:

The Security Commander / Superintendent of Police of the area will set in motion the relevant contingency plan to control the operation.

(c) After the Crisis:

Protect property in the evacuated area.

Media:

The Control Room should release an up-to-date information to the media.

Evacuation including safe Evacuation Areas:

In a disaster situation, evacuation is the movement of people from the place of danger to places of relative safety. It is most effective action to protect people. A comprehensive and coordinated planning is necessary to implement orderly evacuation of population. The process of evacuation should be based on the nature of threat, possibility of spreading of toxic gases and weather conditions. In this case, the hazard analysis in maximum credible loss scenario would help in planning of evacuation. The people of the area should be advised to leave the threatened area and to take shelter in the nearest reception centres. The whole process is required to be completed within quickest possible time. The command and control of the evacuation should be under the supervision of the District Information Officer / Chief Development Officer. The evacuation process should be carried out in three phases.

(a) Before the Crisis:

(i) The public should be informed and educated properly for chemical hazards. Local police should warn the people in this regard and install the siren in the vulnerable places.

(ii) The probable affected areas should be divided in several evacuation centres which are entirely site specific.

(iii) Detailed contingency plan of evacuation of various scenarios should be prepared.

(iv) Availability of all transport resources needs to be ensured. Planning of adequate reception centres including accommodation, food, water supply and sanitary arrangements for the affected population should be done.

(b) During the Crisis:

Implementation of the plan should be done in the quickest possible time.

(c) After the Crisis:

Once the crisis is over, the affected people should be rehabilitated and the follow up measures should be taken up.

Welfare of Evacuated:

In the event of major accident large number of people may be rendered homeless, without food or without adequate clothing. Grave social problem resulting from death, injury, loss of home and family disorganization would be handled by the welfare service headed by the City Magistrate/ SDM Hisar assisted by the various departments shown in the organization

structure chart as annexure -1.

The function of this service are

(i) Information:

Supply of information regarding missing relatives, dead, etc nature of facilities and assistance available for affected.

(ii) Care of homeless:

Provisions of centres where homeless people may be given temporary shelter, food and clothing.

(iii) Evacuation:

Disposal of population from the large congested and hazardous areas to the safe area and making suitable arrangements for evacuees.

Post Emergency Management:

(a) Post emergency management of an incident requires a proper assessment of the after effect of accident. It is expected that City Magistrate/ SDM or Executive Officer Municipal Council, District Commissioner, representative of the Directorate of ISH & Pollution Control Board, experts and other relevant agencies would reach the incident site. These persons together with the technical experts have to decide on post emergency actions regarding.

- Review of mitigation measures being carried out and corresponding augmentation of all response related activities.
- Rescue related efforts.
- Restoration of normally in the area.
- Organising further medical attention for the affected persons either locally or at other locations based on the nature of treatment required.
- Victim identification, helping the kith and kins in formalities, financial relief, arranging for morgue funerals etc.
- Shelter for affected if required.
- Decision to decontaminate the area and prepare the area for re-entry of evacuees.
- Order investigation of incident including assessment of damage to life, property and the environment.
- Make suitable release to the media conveying information on the accident. This should, normally, be authorised by the District Magistrate.

(b) Relief to the Victims:

Post emergency activities include the relief to the victims. The Public Liability Insurance Act - 1991 provides for the owners who has control over handling hazardous substances to pay specified amount of money to the victims as interim relief by taking insurance policy for this purpose. The District Magistrate has definite role in implementation of PLI 1991 as mentioned in hereunder.

(i) Whenever it comes to the notice of the collector that an accident has occurred at any place within his jurisdiction, he shall take action, among other things, to provide relief to the victims.

(ii) He will receive applications in the prescribed forms accompanied by supporting documents.

(iii) He may follow summary procedure for conducting an enquiry on the application for relief.

(iv) He shall maintain a register of the applications as also a register of awards and payment made.

(v) On receipt of an application under sub section 6, the collector after giving notice of the application to owner and after giving the parties an opportunity of being heard, hold an enquiry

into the claim and may make an award determining the amount of relief which appears to him to be just and specifying the person or persons to whom such amount of relief shall be paid.

(vi) The collector shall be responsible for disbursement of the funds to the victims. He may, for this purpose, draw upon the insurance companies or emergency relief fund as the case may be. For this, he would liaise with the units, the nearest insurance companies and the control pollution control board.

(vii) He should ensure that the owners of the MAH units or the units covered under PLI Act 1991 shall take. Insurance policy before handling any hazardous substance and get renewed from time to time before the expiry of the period of validity.

DISTRICT FLOOD MANAGEMENT PLAN

In order to provide immediate relief to flood victims and areas, respective Departments/Officials have been issued instructions to be prepared pro actively, so as to reduce the losses of life & property to minimum.

- 1 Early information/warning to be issued to the people in villages along River Ramganga.
- 2 All requirements to be reviewed in advance like, Flood Control Centres, boats, motor boats, divers, contingency arrangements, etc. so that these may be activated without any loss of time.
- 3 All contingency equipments to be distributed in flood prone areas.
- 4 All concerned staff like lekhpals etc. to be readily available.
- 5 Shift wise duty system to be arranged at Flood Control Centres, so that availability is 24 X 7. For this, teams from Departments like Development, Health, Panchayti Raj, Education, Child Development, etc. can be sought.
- 6 Phone numbers of boats men, divers, etc. to be kept ready.
- 7 CUG numbers of all concerned to be kept on & to be attended immediately.
- 8 Different teams of volunteers & NGOs to be formed. To be listed in advance as to what respective service they can provide. For example, a doctor can be used for health services.
- 9 Adequate arrangements to be made for provide early warning of flood.
- 10 Safe shelters to be identified & well equipped in flood prone areas.
- 11 All basic necessities like food, shelter, health, etc. to be available at or near flood relief camps.
- 12 Local people must be made aware of all arrangements for flood management done at Tehsil level.
- 13 Rate contracts to be done in advance for the items which may required to be out sourced.
- 14 Arrangements to be made to search victims from flood areas.
- 15 On condition of water logging, over flowing, instead of waiting for the announcement of flood situation, activate all resources immediately.
- 16 Overloading of boats to be avoided.
- 17 If a family is not ready to leave house, arrange for their fooding & other amenities also.
- 18 Relief material to be distributed adequately & evenly.
- 19 Life Saving Drugs & other medicines to be kept available a Relief Centres.t Flood
- 20 If available resources or funds get short, demand more from District Headquarter.
- 21 Submit day to day report of flood situation & relief provided to Emergency Control Centre at District Head Quarter.
- 22 The report referred above to be provided to print media also. This will avoid publishing of rumours.
- 23 If any casualties are there, adequate cremation to be arranged.
- 24 In order to manage flood, use readily available material which can be applied with minimum labour.
- 25 SAND: Sand is most widely & ancient means of controlling flood.
Temporary structures formed using sand bags are readily available & easiest to apply. Sand bags should be water compatible and strong enough, to withhold water pressure.
To ensure strength of bunds formed by sand bags should have drains in between.
Sand bags should be filled almost 70%. This will result into strong bonding between the bags.
Surface of bunds along water should be covered with plastic sheet.
It will be further more effective, sandbags to be placed in front of empty oil drums or wooden logs.
- 26 Pumps to be kept ready for extracting water from water logged areas.
- 27 People should be kept away from river banks & land slide prone areas.
- 28 Mobile Medical Vans to be kept ready with all required life saving & other drugs.
- 29 Cooperation to be sought from local / national NGOs & their resources.
- 30 Relief camps also should be established for cattle.
- 31 Roads, power supply system, hospital, if damaged, to be repaired / made functional on priority.

- 32 In case of danger of check dam damage to be told to all concerned.
- 33 Photography & videography to be conducted of all flood affected & damaged properties.
- 34 All reports & actions taken to be briefed to local leaders.

AFTER FLOOD

- 1 To prepare estimate of losses & funds required for relief.
- 2 Evaluation of damaged government properties & means to renovate.
- 3 Evaluation of damaged private properties & agriculture land.
- 4 All arrangements to be made for vaccination against communicable diseases.
- 5 All water resources like hand pumps, ponds, etc. to be renovated.
- 6 All relief measures to be authentically quantified.

CONTINGENCY ARRANGEMENTS AVAILABLE DURING FLOODS

DEPARTMENT	FACILITIES	QUANTITY
Revenue Department	Megaphone	160
	Foldable Stretchers	185
	First Aid Kit	150
	Safety Helmet	150
	Water Container	150
	Rope Ladders	25
	Dragon Search Light	10
	Aluminium Ladder	8
	Fire Extinguishers	150
	Volunteer Jackets	1500
	Boats/Motorboats	20

PRE FLOOD PREPARATIONS

DEPARTMENT	ACTION PLAN
Irrigation Department	In normal condition, information is flashed on wireless of department & Police, every 6 hours, In case of flood situation, information to be flashed every 2 hours.
Revenue Department	During Flood, ADM (F/R) is the Nodal Officer. He monitors situation & releases orders from District Flood Control Centre. Team of SDMs & Tehsildars work under his guidance.
Health Department	Storage & availability of all required medicines. All necessary arrangements to be made in advance for vaccination.
Animal Husbandry / Agriculture Departments	All necessary arrangements to be made to protect animals from diseases. Fodder to be arranged at high areas.
Police Department	To act according to the information provided by authorities.
Supply Department	Relief Material / food items to be made available. Arrange for basic amenities like kerosene, gud, gram, match box, diesel, etc.
Jal Nigam	Pre monsoon cleaning of all drains. Fogging for mosquitoes. Arrangement of pump sets.
Army / PAC	To keep ready boats / motor boats.
Electricity Department	All defects to be checked & removed for uninterrupted supply of power.

FLOOD STEERING GROUP

Flood Steering Group has been prepared in Bareilly under supervision & command of District Magistrate & Secretary, Executive Engineer, Flood Division. 53 Flood Control Posts have been established as below:

TEHSIL	FLOOD CONTROL POSTS
Bareilly	05
Baheri	10
Aonla	05
Faridpur	11
Nawabganj	07
Meerganj	15

Necessary instructions have been given to Revenue, Health & Irrigation Departments, regarding appointment of staff at Flood Management Posts. All required amenities & medicines are to be available in sufficient quantity.

FLOOD SAFETY COMMITTEES

Flood Committees has been formed at Tehsil & Panchayat Level.

1. Warning Team: At every Tehsil, under supervision of Tehsildar team Revenue Inspectors & Lekhpals function as Warning Team. Warnings are issued on getting information from Executive Engineer, Kalagarh Dam Executive Engineer, Flood Division, Bareilly Meteorological Department.
2. Search & Rescue Team: It is a team to be formed under guidance of NDRF, Ghaziabad. Additionally, for search & rescue, help of divers & motor boat drivers of PAC VIII Battalion, Army & Airforce is taken.
3. Loss Assessment Team: SDMs & Tehsildars perform this duty.

DRAUGHT MANAGEMENT

CAPACITIES & RESOURCE ANALYSIS

In 2016 all Food Officers / Supply Inspectors are to conduct the survey of their respective Blocks / Tehsils, based on the Draught Matrix of previous years, and list the draught prone areas. They are responsible to ensure & prepare a data regarding availability of basic necessities, which may be required in respective area, with whole sellers & retailers. This is necessary, so that Administration is aware as to provide these amenities to the victims in shortest possible time. The data collected should as per tabulation below:

VILLAGE	TEHSIL/BLOCK	SHOP-Name, Address, Phone	Amenities available with quantity	If shortfall as per required, other sources		

DRAUGHT RELIEF POSTS

To keep a watch on the situation, Draught Relief Posts to be established in draught prone areas. All necessary staff, with required vehicles & resource data should be available there. All concerned officials have been instructed to keep vigil & be in regular touch with Disaster Management Teams.

CONTROL ROOM

District Control Room has been established to give quick relief to draught hit areas/victims. Nos. of Control Room are:

0581-2550076

18001803817 (Toll Free)

Every distress call is being recorded in computer. On receiving a call, immediately, it is forwarded to concerned department for action. Even the caller gets the response on his/her mobile regarding the action taken.

FUEL SUPPLY

In order to maintain fuel supply during draught, instructions have been given to the concerned dealers to maintain minimum stock as below:

AGENCY / DEALER	FUEL	MINIMUM STOCK
Petrol Pumps	Petrol	1000 liters
	Diesel	2000 liters
Gas Agencies	LPG	100 cylinders
Kerosene Dealers	Kerosene	1000 liters

POWER SUPPLY

Contingency arrangements pro-actively made by Electricity Department:

REPLACEMENT OF TRANSFORMERS: Back up arrangements made by department itself & with the help of outside agencies to arrange replacement of defective transformers, if any.

POWER SUPPLY AS PER ROOSTER: All arrangements made to ensure electric supply as per rooster to the villages.

DRINKING WATER FACILITIES AVAILABLE

In Bareilly district, drinking water facilities are as below:

FACILITY	QUANTITY	MAINTENANCE/CONTINGENCY ARRANGEMENT
Tube Wells	59 Nos.	Spare pump sets available in sufficient nos.
		In case of failure in tube well, it can be made functional within 12 to 24 hours
Over Head Tanks	25 Nos. with total capacity 24365 KL	Thoroughly cleaned twice in a year.
Chlorination of Drinking Water	Chlorine dozers attached with each tube well.	Spare Chlorine dozers are available in sufficient nos.
		Department team conducts O.T. Test of potable water on regular basis.
		Water sample is being sent to State Health Institute for testing on monthly basis.
Water Tankers & Tractors	16 water tanker 2 tractors	These are available to supply water to the areas with drinking water scarcity.
		In emergency, extra tractors can be outsourced.
India Mark II Hand pumps	2721 Nos.	In case of fault, these are repaired within 24 to 4 hours.
		Spare India Mark II hand pumps are available in sufficient nos.
Mobile Generators (125 KVA)	6 Nos.	In case of major or prolonged electric fault or power cut, these can be used to operate Tube Wells.
		In case of emergency, more Generators can be outsourced.

CAPACITIES OF OVER HEAD TANKS

OVER HEAD TANK LOCATION	CAPACITY
Water Works Compound near Hartmann College	1200 KL
Near Sant Kripal Ashram	2100 KL
Behind Irrigation Department, Madhinath	1150 KL
Near BSA Office	1050 KL
Greater Kailashpuram, Patel Vihar	1950 KL
Pawan Vihar	1600 KL
Harunagla	1700 KL
Sanjay Nagar Bhairon Nathupuram	1750 KL
Awas Vikas Colony, near Bankhandi Nath Temple	1500 KL
Shiv Garden, behind Rohilkhand University	950 KL
Munshi Nagar, Delapeer	1000 KL
Veer Savarkar Nagar	750 KL
Bandia Vidyalaya	900 KL
Rehpura Junior High School	1500 KL
Karmchari Nagar, Triveni Park	400 KL
Vis hwanathpuram	1200 KL
Swale Nagar, Trenching Ground	1500 KL

PRO ACTIVE PLANNING OF REVENUE DEPARTMENT w.r.t. DRAUGHT

- 1 Lekhpals inspect & check all potable water resources physically.
- 2 In case of draught & scarcity of potable water, tankers are available and kept ready to maintain the supply.
- 3 With the help of Gram Pradhans under MNREGA, Lekhpals get all potable water wells & India Mark II hand pumps cleaned & maintained/repaired.
- 4 If required, to get all ponds nearby population to be filled with the help of Irrigation Department and Government/Private tube wells. This activity is being done to facilitate drinking water for cattle & other animals.
- 5 All tube well are inspected pro actively by lekhpals. On being found defective, these are got maintained & repaired with the help of Tube Well Department. For timely & easily sowing of crops during draught, help of Canal Department is being taken to supply water I canals as per rooster.
- 6 Availability of diesel is ensured for tube wells & private pump sets. In order to supply power as per rooster, help of Electricity Department is being taken.
- 7 Illegal cuts in canals is being checked with the help of police & village volunteers.
- 8 Survey of transformers is being done by lekhpals, so that defective ones can be repaired/replace in advance.
- 9 Cattle fodder availability is ensured in sufficient quantity. For emergency, Government Agriculture Farm, Bilwa is instructed to keep & supply required stock, as & when needed.
- 10 All medical & Health Service are kept ready & at alert so as to protect human beings & animals from Heat Stroke, Communicable Diseases & Epidemics.
- 11 Pro active arrangements for stocks of food items & other basic amenities are being done with the help of Supply Department.
- 12 If required, farm labourers are given employment in other fields like road construction, under MNREGA Scheme.
- 13 All necessary arrangements ar being made, especially for elders, children, disabled & ladies, in order to avoid malnutrition.

14 Necessary arrangements are being made, with the help of Agriculture Department, to provide, seeds of substitute crops, fertilizers & pesticides.

15 Help of Police department is being taken to have a control over anti-social elements, who become active during disasters.

16 All lekhpals are being instructed through SDMs that there should not be any death due to scarcity of food.

17 If required, be prepared to establish Draught Relief Camps at Tehsil Headquarters & to immediately provide relief.

18 In case of draught, Draught Control Centres will be established as below:

S. No.	DRAUGHT CONTROL CENTRE	PHONE NUMBER
1	District Head Quarter	Fax 0581 – 2457150 CUG 9454417595
2	Tehsil Bareilly	CUG 9454418005
3	Tehsil Baheri	CUG 9454418006
4	Tehsil Aonla	CUG 9454418007
5	Tehsil Nawabganj	CUG 9454418008
6	Tehsil Faridpur	CUG 9454418009
7	Tehsil Meerganj	CUG 9454418010

PRO ACTIVE PLANNING OF AGRICULTURE DEPARTMENT w.r.t. DRAUGHT

1.If monsoon is delayed after 10th July or further, dhaan (rice) crops requiring less reaping time are sown.

2.If due to delayed monsoon, paddy could not be sown & the fields are left vacant, crops like bajra, urd, moong & til are preferred.

3.If monsoon is in time, but a dry gap prevails in mid monsoon, in order to protect sown crops, following actions are being taken:

-Special care is being taken while planning rooster for canals.

-To ensure reaching of water up to termination of canals

-Illegal cuts in canals are avoided.

-Ensure that all tube wells are kept functioning. In case of any failure, immediate action to be taken.

-Ensure regular, uninterrupted supply of diesel / power.

- Farmers are trained & motivated to preserve soil moisture using inter-culture & mulching techniques.

AREA WISE LIST OF PERSONS TO RESPONSIBLE TO ARRANGE FODDER/WATER FOR CATTLE DURING DRAUGHT

S. No.	VILLAGE		VETERINARY HOSPITAL & NUMBER	CONTACT PERSON – Name & No.
1	Faiz Nagar	Faiz Nagar	Bhutah	Sh. Shyam Behari Mishra
2	Ratna	Ratna	Sainthal	Sh. Hori Lal
3	Sundari	Sundari	Klodia	Sh. Babu Ram
4	Rithaura	Rithaura	Bithri Chainpur	Sh. Netra Pal Singh
5	Ismailpur	Kesarpur	Bithri Chainpur	Sh. Surjeet Singh

6	Milak Bhandara	Sardar Nagar	Bhamaura	Sh. Ishupal
7	Trikunia	Ballia	Bhamaura	Sh. Veerpal
8	Bibiapur	Byodhan	Shahi	Sh. Sukhpal
9	Dhaneta	Dhaneta	Meerganj	Sh. Dharmdutt Dixit
10	Diwana	Diwana	Meerganj	Sh. Prempal Singh
11	Kyara	Kyara	Kyara	Sh. Santosh
12	Simraboripur	Simraboripur	Kyara	Sh. Satyadev
13	Raipurhans	Raipurhans	Faridpur	Sh. Rajeshwar Singh
14	Shivpuri	Tar Khaas	Fatehganj East	Sh. Surendra Pal Singh
15	Mehtarpur	Mehtarpur	Kuadanda	Sh. Patthu Lal
16	Mehtarpur	Mehtarpur	Kuadanda	Sh. Rambabu
17	Barsia	Bhaua Bazar	Klodia	Sh. Narottam Singh Gangwar
18	Rupapur	Rupapur	Bithri Chainpur	Sh. Salikram
19	Gaini	Gaini	Majhgawan	Sh. Bhagwan Singh
20	Kamua	Harharpur	Nawabganj	Sh. Pratap Singh
21	Rehpuraganeemat	Rehpuraganeemat	Devrania	Sh. Prempal Singh
22	Angadpur Khamaria	Angadpur Khamaria	Faridpur	Sh. Mewaram
23	Jaraul	Jaraul	Fatehganj East	Sh. Puran Singh
24	Itaua Sharifnagar	Itaua Sharifnagar	Shergarh	Sh. Raghunandan Prasad
25	Semalkhera	Bhudhia Colony	Baheri	Sh. Buta Singh
26	Guladia	Guladia	Majhgawan	Sh. Sevaram

BRIEF OUTLINE ON HUMAN RESPONSE TO CHEMICAL EXPOSURE AND THEIR SYMPTOMS, FIRST-AID AND TREATMENT

Handling of hazardous chemicals involves risks to workers as they are constantly exposed to these chemicals during various operations and storages. In the event of an accident, not only the workers but also the general public can be exposed to dangers. The problem of medical treatment of the victims is aggravated by the fact that there is paucity of information on the antidotes required for these chemicals. Keeping this in view, it has been decided to compile the information on widely used hazardous chemicals and their symptoms along with first-aid and line of treatment. For detailed information, "Handbook of Medical Management of Industrial Emergencies, their First-aid and treatment, 1992" published by Thane-Belapur Industries Association, Bombay may be referred to.

1. ACIDS AND CORROSIVES

SYMPTOMS :

The strong mineral acids exert primarily a local corrosive effect on the skin and mucous membranes. In severe burns, circulatory collapse may result.

Symptoms include severe pain in the throat and upper gastrointestinal tract, marked thirst, bloody vomits : difficulty in swallowing, breathing and speaking.

Inhalation of volatile acids, fumes or gases such as chlorine, fluorine, bromine or iodine causes severe irritation of the throat and chest with paroxysmal coughing and inhibition of respiration, followed by pulmonary oedema.

FIRST AID AND TREATMENT :

Ingested :

Dilute immediately by giving 200 ml of diluted milk of magnesia, diluted aluminium hydroxide gel, milk, raw egg, or water to drink. Do not give bicarbonate or carbonates.

Relieve pain and treat shock :

Perform esophagoscopy promptly to determine the presence of injury. Perforation, peritonitis, and major bleeding are indications for surgery.

Skin Contact :

Flood with water for 15 minutes. Use on chemical antidotes; the heat of the reaction may cause additional injury. Relieve pain and treat shock. For hydrogen fluoride (hydrochloric acid) burns, inject 0.5 ml of 10% calcium gluconate with local anesthetic per square centimeter under the burned area.

Eye Contact :

Flood with water for 5 minutes, holding the eyelids open. Relieve pain by use of local anesthetic agent. Arrange for slitlamp examination.

Inhalation :

Remove from further exposure to fumes or gas. Check skin and clothing. Treat pulmonary oedema and laryngeal oedema. Analgesics or morphine for pains. Steroids to prevent oesophageal and pyloric strictures. Antibiotics to prevent infection.

Amyl nitrite by inhalation for 30 seconds in a minute.

Sodium nitrite intravenously 10 ml of 30% solution immediately followed by a very slow injection of 50 ml of 25% solution of sodium thiosulphate taking about 10 minutes for the injection of 1% solution of methylene blue is recommended.

Dicobalt edatate is suggestive.

2. CYANIDE COMPOUNDS:

SYMPTOMS :

Hydrocyanic acid and the cyanides cause death by inactivation of the respiratory enzyme, preventing utilization of oxygen by the tissues. The clinical combination of cyanosis, asphyxia, and the odour of bitter almonds of the breath is diagnostic. Respiration is first stimulated and later depressed. A marked drop in blood pressure may occur.

FIRST AID :

1. Poisoning by inhalation - Place patient in open air in recumbent position. Remove contaminated clothing. Give artificial respiration.
2. Poisoning by ingestion - Induce vomiting immediately with a finger down the patient's throat. Do not wait until lavage tube has arrived; death may occur within a few minutes.
3. Give amyl nitrite inhalations for 15 - 30 seconds every 2 minutes until intravenous antidotes are given.

TREATMENT:

Use nitrites to form methemoglobin, which combines with cyanide to form nontoxic cyanmethemoglobin. Then give thiosulphates to convert the cyanide released dissociation of cyanmethemoglobin to thiocyanate. Administration of antidotes must be based on haemoglobin level. At 14 g / dl haemoglobin, give 0.39 ml/kg of 3% sodium nitrite intravenously and 1.95 ml/kg of 25% sodium thiosulphate intravenously. At lower haemoglobin levels, reduce dosage in exact proportion. Further administration should not exceed 40% methemoglobinemia, inject sodium nitrite over 10-15 minutes, monitoring blood pressure during administration. Cobalt edentate intravenously if cyanide poisoning is confirmed and should never, be given to a conscious patient.

3. AMMONIA :

SYMPTOMS :

Irritant, affecting upper respiratory tract and in large concentration affecting CNS with spasm. Affection of eyes with rapid penetration of the cornea and even death of the eye ball.

FIRST AID :

Prompt treatment is essential remove the patient from the Ammonia exposed area to an area where fresh air is available.

Start artificial respiration immediately. Administer oxygen as soon as possible. Olive oil can be given by mouth for relief from throat irritation. He should drink warm milk.

If gaseous or liquid ammonia has come into contact with eyes.

(i) When fumes have caused irritation of eyes, wash eyes while holding lids apart and using copious quantity of water or normal saline water or a solution of 0.5 - 1% alum.

(ii) Administer few drops of boric acid solution to reduce pain. Lactic acid can also be used.

(iii) To prevent eye inflammation eye drops with antibiotics may be used. If internal injury is caused due to Ammonia. SOFRACART AND ACTROQUINE eye drops could be used.

(iv) For external injury to the eye, wash the eye with water or normal saline water and then apply ointment SOFRAMYCIN.

If liquid ammonia is swallowed by chance.

If the patient has swallowed ammonia and complains of burning pain from mouth to stomach with strong soapy, nauseous taste and vomiting occurs, stain will be found on lips and chin.

Mucous membrane swells, tongue and lips become brown and swell extensively.

The pharynx, when damaged, becomes constricted, respiration is difficult.

Urine is small in quantity, and strongly alkaline.

Purging may occur with tenesmus and blood is stained. Mucous shock may occur.

Destruction of gastric glands, perforation of stomach, visual disturbance etc. may also occur.

(i) No attempt should be made to induce vomiting.

(ii) Stomach tubes and emetics should not be used. But soft stomach tube or Levine tube can be passed with care within an hour of ingestion.

(iii) Dilution with water, if practised, should be done with caution, since heat may be generated during dilution.

(iv) Weak acids such as vinegar, lemon juice or orange juice could be given to neutralise alkali.

(v) Keep the patient under observation and take necessary action. The period of treatment depends on the injury. The patient may have to be under treatment for about 3 to 4 weeks.

TREATMENT :

If ammonia water is splashed into the eyes, first-aid consists of immediate washing with a large amount of water or a solution of 0.5 - 1% alum. An ophthalmologist should immediately be consulted, even if the injured worker complains of no pain. Affected parts of the skin should be washed with clean, and a lotion is applied consisting of a 5% solution of acetic, citric, tartaric or salicylic acid.

In the event of ammonia poisoning through the respiratory tract, the person should breathe fresh air and inhale warm water vapour (if possible with the addition of vinegar or citric acid) and a 10% solution of menthol in chloroform.

He should drink warm milk. In the event of asphyxia, oxygen should be inhaled, preferably under low pressure, until the breathless-ness or cyanosis is eased followed by a subcutaneous injection of 1 cm² of 1 % solution of atropine.

Resuscitation must be applied if breathing is interrupted or stops. Cardiac preparations or tranquilisers may be given, if advised by a physician. If pulmonary oedema develops, the person must be kept as quiet as possible and kept warm and oxygen must be administered as soon as possible followed by symptomatic treatment for pulmonary oedema.

4. CHLORINE :

SYMPTOMS :

Being irritant causes conjunctivitis and damage to cornea. Asphyxia, affection of respiratory tract, may lead to Bronchitis, Bronchospasm, Pulmonary oedema.

FIRST AID :

Prompt treatment is essential. Remove the patient to an area where fresh air is available. Do not give anything by mouth to an unconscious patient.

CHLORINE GAS INHALATION :

If chlorine gas inhalation is mild and the patient is only coughing etc. the following line of treatment can be given :

- (i) Loosen the clothes and remove shoes. Give Ammonia by inhalation.
- (ii) Place the patient on his back with head and back elevated. Keep the patient warm with a blanket to avoid chilling.
- (iii) Rest is a must.
- (iv) Milk, buttermilk, coffee can be given for relief from throat irritation.
- (v) Cough syrups like Hitadrine, Coughrol, Linctus, Codeine, etc . and common throat lozenges such as Vox, Vicks tablets, Halls etc can be given for soothing the throat irritation.
- (vi) If gas inhalation is severe but breathing has not ceased start oxygen immediately. Phlebotomy (500 - 700 ml), Caffeine and Sodium benzoate 0.5 - 1.0 gm, 1M.
- (vii) In case breathing has ceased start artificial respiration.

If gaseous or liquid chlorine has come into contact with eyes :

- (i) Flush eyes immediately with running water or normal saline water for about 15 minutes.
- (ii) Hold eye lids apart to ensure complete neutralisation with water.
- (iii) Do not try to neutralise with chemicals.
- (iv) Administer 2 to 3 drops of 0.5% solution of Pontocaine or other effective topical anaesthetic in the eyes.
- (v) Do not use oils or oily ointments in the eyes.

If gaseous or liquid chlorine has come into contact with the skin :

- (i) Remove contaminated clothes.
- (ii) Flush the affected portion with copious amount of running water.
- (iii) Wash skin with copious amount of soap and water.
- (iv) Do not apply greases.

If liquid chlorine is by chance swallowed :

Swallowing of liquid chlorine is extremely unlikely if swallowed and the patient is conscious.

- (i) Ask the patient to drink copious quantity of lime water, ammonia water, (1ml in 60 ml of water), milk of magnesia or fresh water.
- (ii) No attempt should be made to induce vomiting.
- (iii) Keep the patient under observation and take necessary action.

TREATMENT :

1. Pulmonary oedema

- (i) Administer 60 to 100% oxygen at 6 lit. min.
- (ii) Intermittent positive pressure breathing apparatus, set to delivery positive pressure of 5-15 cm of water in the inspiratory cycle, is valuable in reducing the formation of edema.
- (iii) Symptomatic treatment. 'Lazyx' is suggestive.
- (iv) Aminophylene intra venously.

2. Bronchospasm

- (i) There is no known antidote for acute chlorine exposures. The exposure is associated with acute symptomatology requiring supportive therapy only. Early treatment is the most effective.
- (ii) Broncho dilators nublized into the intermittent positive pressure gas stream are often beneficial.

EMERGENCY RESPONSE GUIDE FOR DEFFERENT CHEMICALS

1. Emergency response guide for Ammonia :

POTENETIAL HAZARDS

Health Hazards:

Poisonous, may be fatal if inhaled or absorbed through skin.
Contact may cause burns to skin and eyes.
Contact with liquid may cause frostbite.
Clothing frozen to the skin should be thawed before being removed.
Runoff from fire control or dilution water may cause pollution.

Fire or Explosion:

Some of these material may burn, but none of them ignites readily.
Cylinder may explode in heat of fire.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.
Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. It may provide little or no thermal protection.
Structural fire fighters' protective clothing is not effective for these material.
Isolate the back or spill area immediately for at least 150 feet in all directions. See the table of initial isolation and protective action distance. If you find the ID Number and the name of the material there, begin protective action.

Fire:

Small Fires: Dry chemical or CO₂.

Large Fires: Water spray, fog or regular foam.
Do not get water inside container.

Move container from fire area if you can do it without risk.
Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.
Isolate area until gas has dispersed.

Spill of Leak:

Stop leak if you can do it without risk.
Fully encapsulating, vapour protective clothing should be worn for spills and leaks with no fire.
Use water spray to reduce vapour, do not put water directly on leak or spill area.

Small Spills: Flush area with flooding amounts of water.

Large Spills: Dike for ahead of liquid spill for later disposal.
Do not get water inside container.
Isolate area until gas has dispersed.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial Respiration, if breathing is difficult, give oxygen.
In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes. Remove and isolate contaminated clothing and shoes at the site.
Keep victim quiet and maintain normal body temperature.
Effects may be delayed; keep victim under observation.

2. Emergency response guide for L.P.G.:

POTENTIAL HAZARDS

Health Hazards:

Vapors may cause dizziness or suffocation.
Contact with liquid may cause frostbite.
Fire may produce irritating or poisonous gases.

Fire or Explosion:

Extremely flammable; may be ignited by heat, sparks or flames.
Vapours may travel to a source of ignition and flash back.
Container may explode in heat of fire.
Vapour explosion hazard indoors, outdoors or in sewers.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry.
Stay upwind, out of low areas, and ventilate closed spaces before entering.
Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. If may provide little or no thermal protection.

Isolate for 1/2 mile in all direction if tank, rail car or tank truck is involved in fire.

Fire:

Let tank, tank car or tank truck burn unless leak can be stopped, with smaller tanks or cylinders, extinguish/ isolate from other flammable.

Small Fires: Dry chemical or CO₂.

Large Fires: Water spray or fog.

Move container from fire area if you can do it without risk.

Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if this is impossible, withdraw from area and let fire burn.

Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

Spill or Leak:

Shut off ignition sources, no flares, smoking or flames in hazard area.

Do not touch or walk through spilled material; stop leak if you can do it without risk.

Use water spray to reduce vapours; isolate area until gas has dispersed.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial respiration; if breathing is difficult, give oxygen.

In case of frostbite, thaw frosted parts with water.

Keep victim quiet and maintain normal body temperature.

3. Emergency response guide for Petrol & Petroleum Oils:

POTENTIAL HAZARDS

Health Hazards:

May be poisonous if inhaled or absorbed through skin.

Vapors may cause dizziness or suffocation.

Contact may irritate or burn skin and eyes.

Fire may produce irritating or poisonous gases.

Runoff from fire control or dilution water may cause pollution.

Fire or Explosion:

Flammable/ combustible material maybe ignited by heat, sparks or flames.

Vapours may travel to a source of ignition and flash back.

Container may explode in heat of fire.

Vapour explosion hazard indoors, outdoors or in sewers.

Runoff to sewer may create fire or explosion hazard.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry.

Stay upwind, out of low areas.

Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. It may provide little or no thermal protection.

Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire.

Fire:

Small Fires: Dry chemical or CO₂, water spray or regular foam.

Large Fires: Water spray, fog or regular foam.

Move container from fire area if you can do it without risk.

Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if this is impossible, withdraw from area and let fire burn.

Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

Spill of Leak:

Shut off ignition sources, no flares, smoking or flames in hazard area.

Stop leak if you can do it without risk.

Water spray may reduce vapours; but it may not prevent ignition in closed spaces.

Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills: Dike for ahead of liquid spill for later disposal.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial respiration; if breathing is difficult, give oxygen.

In case of contact with material, immediately flush eyes with running water for at least 15 minutes. Wash skin with soap and water.

Remove and isolate contaminated clothing and shoes at the site.

4. Emergency response guide for Natural Gas:

POTENTIAL HAZARDS

Health Hazards:

May be poisonous if inhaled.

Contact may cause burns to skin and eyes.
Vapors may cause dizziness or suffocation.
Contact with liquid may causes frostbite.
Fire may produce irritating or poisonous gases.

Fire or Explosion:

Extremely flammable;
May be ignited by heat, sparks or flames.
Vapours may travel to a source of ignition and flash back.
Container may explode in heat of fire.
Vapour explosion hazard indoors, outdoors or in sewers.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry.
Stay upwind, out of low areas, and ventilate closed spaces before entering.
Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. If may provide little or no thermal protection.
Isolate for 1/2 mile in all direction if tank, rail car or tank truck is involved in fire.

Fire:

Let tank, tank car or tank truck burn unless leak can be stopped, with smaller tanks or cylinders, extinguish/ isolate from other flammable.

Small Fires: Dry chemical or CO₂.

Large Fires: Water spray, fog or regular foam.

Move container from fire area if you can do it without risk.

For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if this is

Not possible, withdraw from area and let fire burn.

Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

Cool container with water using unmanned device until well after fire is out.

Spill of Leak:

Shut off ignition sources, no flares, smoking or flames in hazard area.

Stop leak if you can do it without risk.

Water spray may reduce vapour, but it may not prevent ignition in closed spaces.

Isolate area until gas has dispersed.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial respiration; if breathing is difficult, give oxygen.

In case of frostbite, thaw frosted parts with water.

Keep victim quiet and maintain normal body temperature.

5. Emergency response guide for Chlorine:

POTENTIAL HAZARDS

Health Hazards:

Poisonous may be fatal if inhaled.

Contact may cause burns to skin and eyes.

Contact with liquid may cause frostbite.

Runoff from fire control or dilution water may cause pollution.

Fire or Explosion:

May ignite other combustible material (wood, paper, oil etc.)

Mixture with fuels may explode.

Cylinder may explode in heat of fire.

Vapour explosion hazard indoors, outdoors or in sewers.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry.

Stay upwind, out of low areas, and ventilate closed spaces before entering.

Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. It may provide little or no thermal protection.

Structural firefighters' protective clothing is not effective for these materials.

Isolate the back or spill area immediately for at least 150 feet in all directions. See the table of initial isolation and protective action distance. If you find the ID Number and the name of the material there, begin protective action.

Fire:

Small Fires: Water only, No dry chemical, CO₂ or Halon.

Contain and let burn. If fire must be fought, water spray or fog is recommended.

Move container from fire area if you can do it without risk.

Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if this is impossible, withdraw from area and let fire burn.

Spill or Leak:

Keep combustibles (wood, paper, oil etc.) away from spilled material.

Fully encapsulating, vapour protective clothing should be worn for spills and leaks with no fire.

Stop leak if you can do it without risk.

Water spray may be used to reduce or direct vapours.

Isolate area until gas has dispersed.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial respiration; if breathing is difficult, give oxygen.

In case of contact with material, immediately flush eyes with running water for at least 15 minutes.

Remove and isolate contaminated clothing and shoes at the site.

Keep victim quiet and maintain normal body temperature.

Effects may be delayed, keep victim under observation.

6. Emergency response guide for Sulphuric Acid & Oleum :

POTENTIAL HAZARDS

Health Hazards :

Poisonous if inhaled or swallowed.

Contact may cause burns to skin and eyes.

Runoff from fire control or dilution water may cause pollution.

Fire or Explosion:

Some of these materials may burn, but none of them ignites readily.

May be ignite other combustible material (wood, paper, oil etc.)

Violent reaction with water.

Flammable/ poisonous gases may accumulate in tanks and hopper cars.

Runoff to sewer may create fire or explosion hazard.

EMERGENCY ACTION

Keep unnecessary people away, isolate hazard area and deny entry.

Stay upwind, out of low areas, and ventilate closed spaces before entering.

Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. It may provide little or no thermal protection.

Structural fire fighters' protective clothing is not effective for these material.

Isolate the back or spill area immediately for at least 150 feet in all directions. See the table of initial isolation and protective action distance. If you find the ID Number and the name of the material there, begin protective action.

Fire:

Do not get water inside container.

Small Fires: Dry chemical or CO₂.

Large Fires: Flood fire area with water from a distance.

Do not get solid stream of water on spilled material.

Move container from fire area if you can do it without risk.

Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

Spill or Leak:

Do not touch or walk through spilled material, stop leak if you can do it without risk. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.

Use water spray to reduce vapor, do not put water directly on lead, spill area or inside container.

Keep combustibles (wood, paper, oil etc.) away from spilled material.

Spills: Dike for later disposal. Do not apply water unless directed to do so. Cleanup only under supervision of an expert.

First Aid:

Move victim to fresh air and call emergency medical care; if not breathing give artificial respiration; if breathing is difficult, give oxygen.

In case of contact with material, immediately flush eyes with running water for at least 15 minutes.

Speed in removing material from skin is of extreme importance.

Remove and isolate contaminated clothing and shoes at the site.

Keep victim quiet and maintain normal body temperature.

CHAPTER 6

CAPACITY BUILDING AND TRAINING MEASURES

CAPACITY BUILDING

Capacity Building

Almost all departments, NGOs, Social Groups, Institutions and professional experts play a major role in DDMP. They have to and can function a lot & help in implementation of DDPM. But, in general they are not aware to how and up to what extent they can provide their services.

We have planned to organize awareness & training programs initially for different categories separately & then jointly, area wise.

INSTITUTIONS: In educational institutions, we get teachers & students from different areas. Conducting any training program in educational institutions means the message moves to various areas & societies. Mature students are found to be very cooperative during disasters in assisting Emergency Services. The thing is that we must impart respective trainings to them.

NGOs and OTHER SOCIAL GROUPS: NGOs & other social groups have members from variety of sections & of variety of expertise. We have planned to give them guidelines and impart trainings so that their expertise and resources can be effectively and adequately utilized.

PROFESSIONAL EXPERTS: Professional experts like doctors, engineers, paramedical staff, technicians, drivers, etc. can be of much utility during disasters. We are in process of preparing SOPs for respective professional experts. They will be trained as per respective SOPs. Also, we have planned to form area wise cross functional group so that all may work as a team during disasters.

OFFICIALS / POLICY MAKERS: The HODs of various departments and Organisation/Industry Heads are also involved in implementation of plan during disasters. They will be made aware pro actively, as to in what manner their respective department/organization/industry can be helpful during disasters.

FIRE DEPARTMENT: They are already well trained in managing disasters. They are made aware to keep coordination with other departments & sections. Pro actively, they are given the detail of the hazardous conditions & material used or stored. This will make their activity hassle free.

POLICE DEPARTMENT: Police department is given training regarding their duties during disasters as per DDMP.

CIVIL DEFENCE: Civil Defence Wardens are adequately trained to assist respective department w.r.t. the disaster.

TRAINING

It is also important that general public should also be aware so as to their actions during disasters, in order to avoid any panic and also to save lives. Rigorous trainings are being and will be continually imparted to all sections of society. These trainings are being conducted in schools, colleges, colonies, etc.

For the trainings above, we have trainers in Civil Defence, Fire and Police Departments. Some trainers are also available in private organizations. In order to train the masses we are in process of training the trainers.

CHAPTER 7

RESPONSE AND RELIEF MEASURES

A. Basic Assumptions:

Localized Response - Need:

As is the case with any other planning, there would be some assumptions in emergency planning as well. HAZMAT emergencies give very little warning and have very small onset time. Response in such situations is confined to local levels. Due to this typical restraint it is to be realized that it is not possible to have an unified single remote command person/ centre, while responding to HAZMAT emergencies. Additionally, there would be many organizations performing different tasks in a response simultaneously; some of them under the guidance of specialists or experts and some by using the special purpose equipments, which will require a closer supervision and guidance.

The tasks to be accomplished are the links in the long chain of sequence, in tandem, with an objective of reducing the damage. Any break in the link would affect the response. The time available is very much on premium. The success will mainly depend upon;

1. Response related capability
2. Resources availability and their reliability - manpower and machinery.
3. Co-ordination presumed and reality - the gap between, the time, communication, supervision.
4. Simulations practiced and other exercises how near they are to real situations and how methodically they have been executed and assessed.
5. Judgment about the grey areas and unforeseen developments.

Psychology:

It should also be realized that for successful tackling of emergencies one has to consider the psychological factors that can affect the performance during response and recovery stages. It is applicable for both, the rescuers and being rescued. This plan however has not considered these finer but essential aspects of emergency planning.

Additionally the development of judgments for logistics and resources in off-site emergency management plan requires determination of damage potential from various possible accident scenarios. This is normally done through simulation of various loss of containment scenarios such as fire, explosion, release of gases and spill.

Centre of Action:

Chemical accidents occur suddenly and leave no room for graduated response. Normally, the effects of accident last for 30-60 minutes giving little time for external agencies to reach the scene of the accident to take control of the off-site situation. There are, further, constraints posed by quality of communication notifying the incident. All these point towards the centre of emergency action to have it located in the immediate vicinity of the scene of the incident. The district authority can, at best, play an advisory and overview role and assist in organising necessary support and reinforcement in case the situation out of control.

Control Room:

Police Control Room is best option in view of its resources base due to high integrity communication system linked with the entire district, district authorities, and emergency response agencies. It can be used more effectively by suitable upgrading and additions as thought below :

1. Up to date information on the hazards present in the area and inventory, properties of hazardous materials, historical data on local meteorology, emergency response etc in as easily retrievable form.

2. Details map of the area showing location of industries, residential building, sensitive location, water course and access routes etc.

Resources :

The requirement of resources for Disaster management organisation will mainly be in the form of training, planning and co-ordination. Material resources that would be required are communication and warning facilities, transport, medical services to treat the affected. In addition, fire services would be required to deal with any on-site situations and transport accidents.

The medical professionals in the area should also examine the need for any special medicines (industry specific medicines/ antidotes).

B. Accident Types:

The type of accidents involving hazardous material can be classified as under.

- Industrial accident (static installations) like major fires, explosions, toxic release, etc.
- Transportation Accidents
- Pipeline accidents
- Environmental Accident
- Natural calamities

C. Liaison: Liaison between the various agencies involved in the DDMP shall be constantly maintained during periodical meetings and mock drills organised by the member Secretary of the District Crisis Group (Deputy Controller, Civil Defence)

D. Rescue and Relief Plan:

(i) Communication

(a) Notification of incident:

Incident notification has to be brief and precise. It has to take into account the fact that several of the variables may not be fully intimated at the time of notification. The factory or person/ authority/ individual mostly in respect of transport emergency, informing the emergency to the local control room should bear these factors in mind. The following information is considered essential for notification.

1. Name of person notifying the emergency.
2. Hazards involved in accident.
3. Likely magnitude of accident (release quantity).
4. Prevailing wind direction (if available)
5. Any other important information (impact, toxicity etc.)
6. Extent of damage, as a distance.

Since incidents could also be notified by anyone in the public (in the case of transport or other emergencies), the notification requirements must be simple. The notification should, further, enable the local control room to take action based on the minimal parameters notified. Once minimum required is provided in the control room (Local Police Station with wireless facility), this information could be gainfully utilised by it to assess the vulnerable zones. This would, however, depend upon facilities provided, the skills of personnel available which depends upon their levels of training and preparedness.

(b) Intimation of emergency:

Once the incident has been notified to the control room, the situation has to be conveyed to others for information and necessary action as follows :

1. Responding agencies having action at site, responders, technical experts are to be contacted first for the emergencies other than fire. The Police in turn should inform the DM, City Magistrate, SDM and other officials to initiate action at their level;

2. It may be noted that during emergency the communication should be as brief and precise as possible. To achieve this a certain protocol is to be followed strictly. The protocol would be mitigation, rescue/ relief (which includes treatment to injured) and rehabilitation. Each, responding organization should have such a procedure that it will notify not more than two other organisations/ individuals according to protocol demanded by the situation. If one organisation is burdened with communication with all responders/ responding agencies, no sooner, its communications channels will be jammed.

3. The district control room must first be informed by wireless, by local level police station, to initiate the co-ordination process at the district level and initiating the district machinery or by the affected industry through telephone or other suitable means.

4. Other support agencies should either be informed to keep them in readiness for action or for initiating the action.

5. Neighbouring communities should be informed of occurrence of an emergency situation in the area. Some of the bigger units with populations around have already provided the sirens with some conditions. In some cases, installed public address system should be to inform the neighbours to inform regarding emergency situations. It will be necessary to ensure that the surrounding population understands the various codes and takes the required precautions

when notified. The drills and exercise involving neighbouring population would be very much useful to achieve this.

Appointment of key personnel or Emergency Management Structure:

The emergency management structure of the district is given in Disaster Organization Chart. The functions of the various agencies are briefly described in the structural diagram.

Apart from the emergency management structure various Govt authorities are entrusted emergency services as under:

1. Chief District Emergency Controller	DM
2. Casualty Service	Chief Medical Officer
3. Rescue Service	Superintendent Engineer CPWD Fire Officer & Home Guards
4. Transport Service	R.T.O.
5. Telecommunication Service	G.M. Telecommunication
6. Welfare Service & Shelter	City Magistrate / SDM assisted by DIO, Municipal Council, Food & supply, Red Cross, Civil Defence Wardens, NGOs
7. Salvage Service	SDM
8. Corps Disposal Service	Nagar Swasthya Adhikari
9. Fire Fighting/ Combating Service	CFO
10. Law and Order & Traffic service	SSP
11. Water Supply & Sewerage	Executive Engineer, Nagar Nigam
12. Electricity	Executive Engineer UPSEB
13. Food & Supply	District Supply Officer and Red cross/ NGO
14. Technical Advisor	Asstt. Director of Factories
15. Evacuation	Police, Fire, Civil Defence, Home Guard
16. Sanitation	Nagar Swasthya Adhikari

For detailed procedures refer Chapter 5, Preparedness Measures (Page 49-82)

CHAPTER 8

RECONSTRUCTION, REHABILITATION AND RECOVERY MEASURES

POST EMERGENCY ACTIVITIES

Activity	Responsibility
To check the hazard for possible secondary effect of delayed relapse.	Technical experts
To provide notification at the shelters of termination of emergency	Communications Coordinator
To restore supplies like water, electricity and gas, etc.	Utilities Coordinator
To arrange for transportation of evacuees back from shelter place to their respective residence	Transportation coordinator
To restore law and order in the affected areas	Security coordinator
To establish grievance cell	Liaison & PR coordinator and chairperson of Local Crisis Group (LCG)
Hold press conference	Public Relations Coordinator
Hold public meetings for answering their Queries	PR coordinator in association with officials of the concerned Major Accident Hazard (MAH) unit
Arrange for providing interim relief to the affected people	District Magistrate
Undertake accident investigation and Documentation	Technical Coordinator
Arrange further relief to the affected people based on claim applications	District Magistrate
Plan updating, if so required	District Crisis Group (DCG) / Local Crisis Group (LCG)
Provide training to community and staff	DCG/LCG

Post Emergency Management:

(a) Post emergency management of an incident requires a proper assessment of the after effect of accident. It is expected that City Magistrate/ SDM or Executive Officer Municipal Council, District Commissioner, representative of the Directorate of ISH & Pollution Control Board, experts and other relevant agencies would reach the incident site. These persons together with the technical experts have to decide on post emergency actions regarding.

- Review of mitigation measures being carried out and corresponding augmentation of all response related activities.
- Rescue related efforts.
- Restoration of normally in the area.
- Organising further medical attention for the affected persons either locally or at other locations based on the nature of treatment required.
- Victim identification, helping the kith and kins in formalities, financial relief, arranging for morgue funerals etc.
- Shelter for affected if required.
- Decision to decontaminate the area and prepare the area for re-entry of evacuees.
- Order investigation of incident including assessment of damage to life, property and the environment.
- Make suitable release to the media conveying information on the accident. This should, normally, be authorised by the District Magistrate.

(b) Relief to the Victims:

Post emergency activities include the relief to the victims. The Public Liability Insurance Act - 1991 provides for the owners who has control over handling hazardous substances to pay specified amount of money to the victims as interim relief by taking insurance policy for this purpose. The District Magistrate has definite role in implementation of PLI 1991 as mentioned in hereunder.

(i) Whenever it comes to the notice of the collector that an accident has occurred at any place within his jurisdiction, he shall take action, among other things, to provide relief to the victims.

(ii) He will receive applications in the prescribed forms accompanied by supporting documents.

(iii) He may follow summary procedure for conducting an enquiry on the application for relief.

(iv) He shall maintain a register of the applications as also a register of awards and payment made.

(v) On receipt of an application under sub section 6, the collector after giving notice of the application to owner and after giving the parties an opportunity of being heard, hold an enquiry into the claim and may make an award determining the amount of relief which appears to him to be just and specifying the person or persons to whom such amount of relief shall be paid.

(vi) The collector shall be responsible for disbursement of the funds to the victims. He may, for this purpose, draw upon the insurance companies or emergency relief fund as the case may be. For this, he would liaise with the units, the nearest insurance companies and the control pollution control board.

(vii) He should ensure that the owners of the MAH units or the units covered under PLI Act 1991 shall take. Insurance policy before handling any hazardous substance and get renewed from time to time before the expiry of the period of validity.

CHAPTER 9

FINANCIAL RESOURCES for IMPLEMENTATION of DDMP

It is in process to estimate the budget required for preparation and execution of DDMP. Once the estimates are calculated, further action will be taken.

CHAPTER 10

PROCEDURE and METHODOLOGY for MONITORING, EVALUATION, UPDATION and MAINTENANCE OF DDMP

PLAN TESTING AND UPDATION

TRAINING OF RESPONDERS:

Appropriate and adequate programmes for building up the capabilities of all the agencies involved, mostly those of the parts of off-site planning; will have to be carried out, along with their refresher courses. Such a programme will also include the activities of sensitisation and orientation related courses for decision makers at senior levels. The expertise available with some of the factories will be of help for such courses and its involvement will benefit all the concerned. Once LLCG & DLCG are functional, it will be essential to organize these orientation programmes for group members, to ensure better deliberation in their meetings. The second area is that of emergency management. This required a thorough knowledge of the roles and responsibilities and linkages that have to be ensured during emergencies. This aspect can only be checked through a plan testing process in which an emergency situation is simulated. The testing of the plan is discussed below.

TESTING OF PLAN:

Effective testing of plan is only possible through drills and exercise alone. Field drills are very much essential for following reasons :

- To perfect the response vis-a-vis the plan document.
- To build confidence amongst the responders
- To assess the appropriateness of the equipment,
- To assess the level of preparedness.
- To gain an experience akin to one, gained from real situation.

The suggested method provide a step by step approach for testing the plan, devoid of such limitations. This approach suggesting a sequence of exercises and drills, helps in improving the response related capabilities. It is also useful in identification of resources and personnel requirement, and thus, fine tuning the plan.

To satisfy these requirements, the exercises or drills will have to be planned in a particular sequence. The sequence has to be chosen in such a fashion that it builds capability, first at individual level, follows by organisation or team responding to the task contemplated. At

a later stage, it will gradually percolate to all persons agencies, wings or teams. Once such a capability is evident, it will gradually expand the scope and size of drill and ultimately lead to various types of drills. The following sequence is recommended based on experience. Due to adaptability and flexibility built in these types of exercise, minor variation in sequencing might not affect the objectives.

A careful study of a plan will reveal various components of emergency planning. These would be communication, fire fighting, repairs, calling external assistance, cardoning etc. These components could be the tasks for individual or teams. The tasks if they have to be successful, will require appropriate skills. The analysis of plan on the basis of components and tasks will facilitate procedures for preparedness.

Truncated drill

Full Scale/ field drill

Demonstration drill

Drills, as would be experienced, are multipurpose and versatile tools. Therefore one can opt for a particular objective, component, or parameter of planning to be tested. Those can be evaluated or even corrected by conducting a drill.

Drill can be tailored to evaluate :

- a. Response time,
- b. Response quality
- c. Co-ordination and Communication.

The broad classification of drill objectives are as under :

1. Assessment of
Size of emergency organisation,
Capability,
Skills of individuals,
Response methodology,
Response time,
Adequacy of infrastructure and resources.
2. Identification of gaps in planning and resources.
3. Search for alternatives wherever applicable.

Exercise objectives, can be further subdivided and limited to only one or few of the following components, to facilitate the assessment in those areas :

Co-ordination

Sequence

Correctness of action

Communication

Schedule of resources required (on time scale)

By this method, it will be easier to identify drawbacks and difficulties, and search for right solutions for quick and correct actions.

TABLE TOP STUDY:

In a table top exercise members of the response team take part in a "paper exercise" to ensure that each member known his, or her, role in an emergency situation, that has been pre-prepared in written form. The written scenario should identify clearly the following :

- The objectives of the drill
- The components of the plan to be tested.
- The expected participants.
- The sequence of events
- The simulated hazard levels and
- Exercise evaluation checklists.

The written scenario should be as realistic as possible, and could be taken from the sequence of events from an actual emergency.

Critique sessions during which the results of the evaluation are presented are crucial. The plan should be modified following these sessions, to rectify any shortcomings highlighted by the drill.

A table top exercise is particularly useful for testing a new plan, for the following reasons.

- A new plan is likely to have many short comings which will be readily discovered during a table top exercise.
- The Participants in the exercise will have an opportunity to work closely together probably for the first time. When members of an emergency team can meet frequently, and work together, they are much more likely to be able to co-operate effectively and

efficiently during a real emergency and

- Desk top exercises are far less expensive than full scale emergency drills.

FULL SCALE TESTING:

Nothing can replace a full scale emergency drill as a means of identifying further area requiring improvement in an off-site emergency management plan. Careful pre-planning of the drill, preparing a drill scenario and the evaluation process, are all critical elements to a successful test. The emphasis of these drill might be on one or all of the inter action aspects of the plan. Some examples are given below to indicate this.

- That the degree of co-operation achieved between the various agencies and services involved in plan implementation.
- Test the use and performance of the emergency equipment such as fire extinguishers, breathing apparatus, decontamination equipment, fire engines, ambulances, specialised hospital equipment and services etc.
- The setting up of road block
- Traffic control
- Decontamination
- Environmental monitoring and
- Community alerting evacuation return.

PLAN UPDATING:

The results of a mock trial should be analysed to find out if the intentions of the plan have been adequately meet. Normally, observers are posted at various locations to study the progress of the emergency action at various stages. Thereafter, the planning team, together with the observers and responders examine in detail the various aspects of emergency action. The net result is the following:

- To identify aspects of plan which have not worked as planned.
- To evolve modifications to the plan to make the plan properly workable and
- To assure information between planners, responders and the communities on the revisions made to the plan.

Based on the analysis of the trials, the plan is updated. Normally, minor modifications to the plan are updated through addendum to the plan. When the plan accumulated a large number of addenda, the plan is expected to be reissued for sake of clarity.

UPDATING SCHEDULE:

It is expected that the meeting at division level is organised at least once in a six months to start with, to review and update the plan. In between a small group comprising of DISH, SDO/ MC and representatives of industry shall review and authorise regarding these up-dating.

The note communicating the amendments, correction and changes should be signed by one of the member of this group. It is expected that he recipient of these note, tags in his document the amendment and maintains a written record of such correction giving the No. and date and who has authorised such correction. It is hoped to prepare the circulation list of all those to whom this amendment will be notified, which would include amongst others -

The Heads of all responding Organisations, in Government and outside,

The Works Main Controller of Emergencies of all MAH factories

The Member of Local Level Crisis Groups,

The Members of District Crisis groups,

The Members of State Crisis groups,

The Organisations and individuals who are expected to resource base, though directly not involved in response, e.g. The control rooms of Police, Mantrayala Control Room, Casualty Departments of Hospitals, Experts etc.

CHAPTER 11

COORDINATION MECHANISM for IMPLEMENTATION of DDMP

When disaster occurs, it is not for particular group, area or segment. It affects all. Hence, as per DDMP, all sections of society have to involve in DDMP. For better functioning, inter department inter group coordination is must.

There are many social and industrial groups which have some experts in their teams. These experts can be of much importance during disasters. These groups are also being involved in DDMP.

Educational institutions have teachers, hospitals have doctors & paramedical staff, industries have safety teams & first aiders, etc. All these sections are vital during disaster management.

Similarly, we have volunteers at block & village levels also. They are well aware of the topography of their respective areas, which is also important.

To make all functional groups as a team, we have a system of multi functional coordination.

We are in process of involving the helps we can get from neighbouring districts during disasters. For this we shall have a Mutual Aid Plan, which will specify the help they can provide us and vice versa during disasters.

INTRA and INTER DEPARTMENT COORDINATION

The SOPs will be developed for all departments w.r.t. their respective role in Disaster Management. Further SOPs for the system of Inter Department linkage and coordination will also be developed.

Trainings and drills will be organized for implementation of the above referred SOPs.

COORDINATION MECHANISM WITH NGOs, CBOs, SELF HELP GROUPS, INDUSTRIES, PRIVATE SCHOOLS and HOSPITALS:

All the available resources from the organizations referred above will be listed as below:

NGOs, CBOs & SELF HELP GROUPS

The resources expected are:

- Professional experts
- Trained Volunteers
- Amenities with expected quantity for victims like fooding, clothing, shelter, etc.
- Facilities available with professional experts.
- Vehicles

\INDUSTRIES

The resources expected are:

- Emergency Management Teams
- Rescue Equipments
- Ambulance
- First Aid Boxes
- Vehicles
- Doctors & Engineers

PRIVATE SCHOOLS

The resources expected are:

- Buses & vans
- First Aid Boxes
- Shelter for victims

HOSPITALS

Resources expected are:

- Doctors
- Paramedical Staff
- Beds
- Ambulances
- Medical Specialist Facilities

CHAPTER 12

STANDARD OPERATION PROCEDURES (SOPs) and CHECKLIST

ROLE OF EMERGENCY ORGANISATION FOR THE MANAGEMENT OF DISASTER IN DISTRICT BAREILLY

1	2	3	4	5
FIRE	POLICE	MEDICAL	CIVIL DEFENCE	TRANSPORT
<ul style="list-style-type: none"> • Control of fire • Rescue operation • Control of toxic / flammable release • Guidelines for evacuation • Requisition of additional fire resources • Co-ordination with other emergency service 	<ul style="list-style-type: none"> • Traffic Control & rescue • Cordoning of emergency area • Shifting of injured and casualties • Law and order • Evacuation of general public • Deal with casualties • Guarding the property • Preserve evidence • Watch on new developments 	<ul style="list-style-type: none"> • Care of injured • Ambulance service • First aid arrangements • Arrangements of antidotes • Hospitalization • Mobile Medical Services • Liaison with Distt. Admn. • Establishment of Medical information centre • Shifting of injured and casualties 	<ul style="list-style-type: none"> • Help in fire fighting • Help in evacuation & rescue • Help in shifting the injured • Deal with casualties • Create Public awareness • Rehabilitation • Shelter 	<ul style="list-style-type: none"> • Transport facility for the shifting of injured and evacuation • Change the route of buses • Provide facilities like Recovery vans, crane, manpower, vehicles and maintenance equipments / facilities • Keep the workshops open for any requirements

6	7	8	9	10
INFORMATION OFFICER	INDUSTRIES	NGO / RED CROSS	MUTUAL AID GROUP	MUNICIPALITY
<ul style="list-style-type: none"> • Create public awareness • Evacuation of General Public • Help in rehabilitation • Release of authentic information • Information sharing • Keep watch on new developments 	<ul style="list-style-type: none"> • Put the emergency resources in to action as per plan • Inform to all concerned immediately • Receive out side help. • Render help under mutual aid as per procedure • Explain level of emergency • Coordinate rescue and combating operation • Provide technical guidance 	<ul style="list-style-type: none"> • Help in evacuation • Rehabilitation • First aid and medical aid • Arrange for civil amenities (water, clothing, food, shelter, etc.) 	<ul style="list-style-type: none"> • Participate in mutual aid • Help in fire fighting, rescue, first aid, medical aid and evacuation operation 	<ul style="list-style-type: none"> • Ensure adequate water supply for fire fighting • Help in rescue operation and evacuation • Rehabilitation (water, clothing, food, shelter etc.) • Salvage operation

RESPONSE AND RELIEF MEASURES

Appointment of key personnel or Emergency Management Structure:

The emergency management structure of the district is given in Disaster Organization Chart. The functions of the various agencies are briefly described in the structural diagram.

Apart from the emergency management structure various Govt authorities are entrusted emergency services as under:

1. Chief District Emergency Controller	DM
2. Casualty Service	Chief Medical Officer
3. Rescue Service	Superintendent Engineer CPWD Fire Officer & Home Guards
4. Transport Service	R.T.O.
5. Telecommunication Service	G.M. Telecommunication
6. Welfare Service & Shelter	City Magistrate / SDM assisted by DIO, Municipal Council, Food & supply, Red Cross, Civil Defence Wardens, NGOs
7. Salvage Service	SDM
8. Corps Disposal Service	Nagar Swasthya Adhikari
9. Fire Fighting/ Combating Service	CFO
10. Law and Order & Traffic service	SSP
11. Water Supply & Sewerage	Executive Engineer, Nagar Nigam

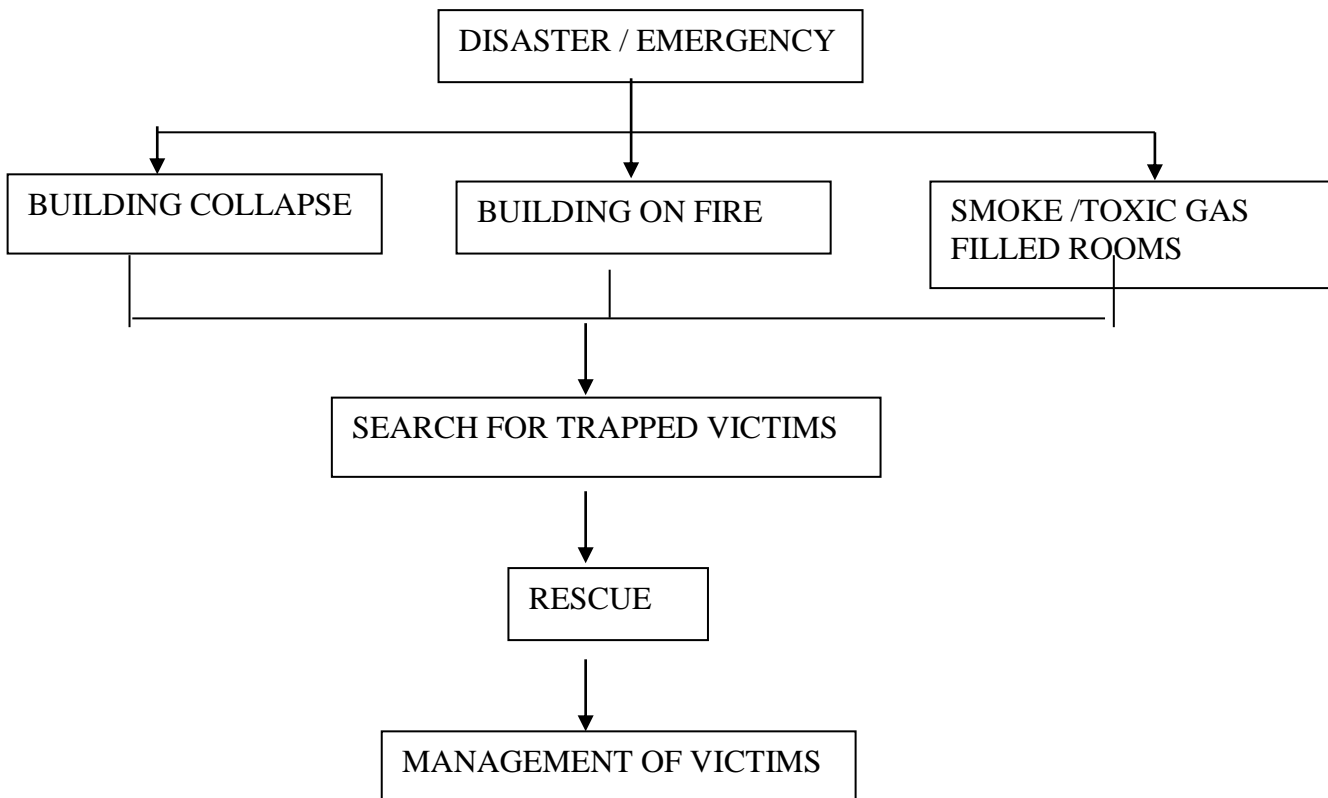
SEARCH & RESCUE OPERATIONS

Objectives

During any disaster / emergency the building may come under certain circumstances, viz:

- Complete or partial collapse
- Fire
- Smoke filled rooms.
- Toxic gas

As a result there may be some victims trapped inside. In such situations, the foremost responsibility of the disaster / emergency management teams is to search, rescue and manage the trapped victims. Broadly speaking, the procedure can be followed as under



BASIC EQUIPMENTS REQUIRE FOR PHYSICAL SEARCHES

- Personal Protective Equipments (PPE's) like helmets, Masks, self contained breathing apparatus, gloves, goggles, protective suits etc.
- A complete medical kit.
- Communication system like megaphone etc.
- Marking devices.
- Warning system.
- Personal supplies like food etc for at least twelve hours.
- Pencils, colour pens, paper, board etc. to prepare layout.
- Search and rescue tools.
- If required- Hazardous material guide (MSDS).

SEARCH OF LOCATION OF VICTIMS

For rescue, the first thing is to search for live persons. This searching has to be done very carefully and ethically. Here is a system defined.

- Analysis: - The first thing to be done is to collect the facts about the accident / disaster and analyse the situation. This analysis will guide a lot. This analysis will also avoid any further damage
- It also has been observed that whenever there is a collapse of building, many people move towards the scene. There are certain miscreants who try to make a mess / loot. This will hinder the search operations. Hence, it is necessary to make security arrangements around the site.
- The trapped victims who can easily be rescued should be given priority
- Inspect the collapsed structure carefully, make markings and draw a rough layout. This layout will help in deciding the rescue path, rescue area and method to be adopted for search operations.
- After drafting the search plan, we can easily move to our task.
- Provide First- Aid to the victims.
- Arrange to call a doctor or transfer the victims to the hospital.
- With the help of the tools and resources available, try to find out if any more live victims are trapped.

Calling and listening for trapped victims

The rescue team leader should place his team members at suitable vantage point around the area in which the victims may be trapped. He should then demand complete silence and each member in rotation (one by one) calls 'Is any one there – can you hear me?' the other members of the team listen intentionally for any reply. If reply is heard, act accordingly. If none is heard, it is good plan to tap on a wall, or on any pipe/beam etc., running into the debris and again listen for an answer.

SEARCH MODALITIES / PROCEDURES

- **Hasty Search** (Primary): - This type of search is conducted to quickly detect the presence of survivals on the surface or easily accessible void spaces. Hasty search accomplishes the following:
 - * Rapid detection of the victim.
 - * Site assessment (information gathered as a result- aids an a size up of the rescue problem).
 - * Set priorities.
- **Extensive or Grid Search** (Secondary): - This type of search is conducted in a methodical manner to pin point the exact location of victims. It is designed to cover the entire assigned search area carefully and in detail. An extensive or grid search accomplishes the following:
 - * A thorough systematic search.
 - * Redundant checks.
 - * Allows for use of alternate search resources.

This process may need to be repeated as new information is received and / or as the structure changes.

- **Physical search**:- Physical search operation do not require specialist or unique / expensive equipment. They only require senses and some established procedures. Physical search includes the three basic tactics
 - * Physical / void search
 - * Hailing
- Basic search pattern

HAILING METHOD PROCEDURE

- The search team leader directs his team to be silent and all work to be stopped around the area. Four members as S&R (Search & Rescue) team who take position in a cross pattern, positioned at

intervals of approximately 8-16 meters in safe locations as close as possible around the search area.

- Going around in clockwise direction each searcher calls out loudly or with a megaphone. Instead of hailing, searchers may also knock something solid (usually metallic) that is contiguous part of the site debris in order to elicit a response.
- All searchers then listen and point in the direction of any potential response to the instructions. This must be noted on the rough sketch of the area and the direction of the sources of sound.

PHYSICAL SEARCH PATTERN

An organized approach will yield the best opportunity to locate a victim and to declare the area for search.

- **Multiple rooms:** - The basic instruction for searching area with multiple rooms is ‘Go Right – Stay Right’.

After entering the structure, turn to the right, stay in contact with the right wall, either visually or physically, until the entire assemble area has been searched and the team returns to the starting point.

- If the S&R team needs to exit and cannot remember the direction they entered, simply turn around and stay in contact with the same wall, either physically or visually, keeping it on your left.

Large open areas (line search): use this line search method in areas with multiple partitions.

- Spread S&R team member in a straight line across the open areas, 3 to 4 meters apart.
- Slowly walk through the entire open area to the other side
- Team members on the end of the line search perimeter rooms using the ‘ Go right- Stay Right’ method.
- The procedure may be repeated in the opposite direction

Perimeter Search: - This search pattern can be useful when it is not possible or unsafe to search a rubble pile from on top.

- Four S&R team members take position equally spaced around the search area
- After using an appropriate search method each S&R member rotates 90 degrees clockwise. This process to be repeated until all S&R members complete four rotations (Returning to their original position)

SEARCH OF BUILDING ON FIRE

The S&R team leader shall ascertain from the persons present and the person performing Head count at assembly point if there is anyone still trapped in the burning building. He / she shall instruct his members accordingly.

- If possible-S&R team should work in pairs
- Start searching from the top of the building, so that you may be nearer the fresh air at the end of the search operations.
- Search swiftly but thoroughly. Do not avoid any possible hiding place.

SEARCH OF SMOKE (GAS) –FILLED ROOMS

- Never throw open the door of the smoke (gas) filled rooms suddenly. The heated gas and smoke, inside may over helm the S&R personal.
- Open the door slowly with yourself in a crouching position. This allows the hot gases and smoke to pass over your head
- In case the door of the room opens outward, place one foot against the bottom of the door and open gently. This will protect you from injury from sudden outward swing of the door as a result of considerable pressure on it due to the expansion of the heated gases inside the room.
- Enter the room in a crawling position, as there is less smoke and less hot air near the floor.
- Always move in a crawling posture while inside the room
- Keep yourself near the wall while moving
- Make a complete circuit in the room
- Check under & on the furniture, cupboards, and other likely places of hiding
- Cross the room diagonally to make sure that no one is lying in the middle

REMOVAL OF VICTIM FROM ELECTRIC CONTACT

- Switch off the sources of current before you touch the victim.
- Stand on a dry wooden piece or on any article which is non conductor of electricity, such as a thick pad of dry newspaper / book, sheet or other things of like nature

Protect the hands with some form of insulating material such as rubber gloves or some dry wooden material or any sheet.

Remove the casualty from wire on apparatus or push or pull the wire/ electric apparatus from the victim, with a dry stick.

VICTIM MANAGEMENT

The following concepts and procedures should be applied, the moment, the search is initiated and the victim is (are) found.

Precautions during the search

Keep your comments on a positive note. Always assume someone is listening you.

The victims may be in the worst possible position and straggling to stay alive. You can enhance their chances of survival by being positive about the possibility of finding and saving them.

You may be the first person the victim is able to communicate with; therefore it is important to project a sense of confidence and hope.

Steps for initial contact with a located victim

1. Identify and overcome language barriers.
2. Identify yourself as a rescuer, projecting confidence and have calm in your voice and choice of words.
3. Obtain the following information from the victim (if he / she is in senses).
4. Provide emergency medical treatment as quickly as possible.
5. Ask About other potential victims and other conditions.
6. Inform the victims if you have to leave as much as possible.
7. Consider direct or indirect intervention of a relative of a friend, etc.

Name

Approx. age.

Type and extent of injury

Hydration status

Warmth

Degree of confidence

- Provide emergency medical treatment as quickly as possible.
- Ask about other potential victims and their condition.
- Inform the victims if your have to leave as much as possible.
- Consider direct or indirect intervention of a relative of friend, etc.

ANNEXURES

INDICATIVE LIST OF MEDICINES / EQUIPMENT

Medicines to be stocked at Treatment Centre (per 1000 persons)	QTY.
ITEM	
General Medicines	
Methyl Cellulose Eye Drops, 5 ml.	500 Bottles
Injection Tetanus Toxoid, Multidose	250 Vials
Surgical Spirit	10 Bottles
5% GNS IV Fluid, 540 ml.	100 Bottles
Normal Saline Fluid, 540 ml.	100 Bottles
Sterile Distilled Water, 500ml.	100 Bottles
Vinegar	5 Bottles
Liquid Paraffin	5 Bottles
Vaseline 1 tin Tincture Benzoin	5 Bottles
Tincture Iodine	5 Bottles
Tincture Cetrimide	20 Bottles
Savlon Liquid	25 Bottles
Ointment Soframycin	100 Tubes
Ointment Atropine (Eye)	50 Tubes
Atropine Eye Drops	50 Bottles
Neosporin Dusting Powder	100 Tubes
Pilocarpine Eye Drops	25 Bottles

Acriflavin Gauze with Plastic Jar	5
Ointment Gentamycin (Eye)	50 Tubes
Gentamycin Eye Drops	50 Bottles
Injectables (Ampoules / Vials)	
Decadron	100
Deriphyline	500
Coramine	100
Calcium Glutamate	100
Adrenaline	100
Dopamine Hydrochloride	25
Mephentine	50
Sodium Bicarbonate	500
Atropine Sulphate	1000
Aminophyline	100
Lasix	200
Vitamin K	20
Lignocaine Hydrochloride	70
Salbutamol	10
Perinorm	25
Pethidine Hydrochloride	50
Ampicillin	25
Avil	50
Calmpose	100
Morphine Sulphate	10
Surgical Items	

Eye Plastic Undine	50
Absorbant Cotton Wool	100 Rolls
Bandage 2", 4", 6"	100 Rolls
Adhesive Plasters (Different sizes)	100 Rolls
Oxygen Cylinders	50
Mackintosh (Rubber Sheet 3' x 6')	20 Rolls
Polyethylene Masks (Surgical)	1000
Pathology Gloves (Misc. sizes)	50 Pairs
Disposable Syringes (2, 5 & 10 ml.) 150 Catgut Chromic	100 Boxes
Suture Needles Cur. Cutting (Different sizes)	100
Suture Needles Str. Cutting (4, 6, 8 mm)	100 Each
Catgut Plain	100 Boxes
BB Silk	100 Reels
Operation Scissors, str	5
Operation Scissors, Cur.	5
Tracheotomy Set	10
Forceps Artery, Str.	50
Forceps Artery, Cur	50
Forceps Mosquito	50
Plaster of Paris Bandage (10 & 15 cm)	50 Rolls Each
Forceps Dissecting (Toothed & Non-toothed)	5
Forceps Cheatles 4 Thomas Splints (arm/hip)	123 Each
Boyels Apparatus 1 Respirator Bear (Adult/child)	2 Each
Laryngoscope (Adult/child) 1Each Endotracheal Tubes (diff. sizes)	25
IV Set, Disposable	100

Wooden Splints	100
Elastic Bandage	100
Electric Sterilizer	5
Hypodermic Needles (diff. Sizes)	100
SS Tray with Lid (rectangular)	10
EI Jar, (5")	10
EI Jar, (12")	5
Scissors shop	2
Basins (18" dia)	5
Kidney Tray	10
Loup (Eye Examination)	4
Others	
G N S IV Fluid	100 Bottles
Water	100 Bottles
Plasma - Oxygen Cylinders	50
Miscellaneous Items	
Overshoes	100 Pairs
Torchlight (3 Cells)	10
Torch Cells	60
Stretchers	50
Mattress	100
Wheel Chairs	10

PHONE NUMBERS- ADMINISTRATION DEPARTMENT

S.N o.	Officer's Post	Office No.	Tel.	Residence Tel. No.	Mobile/CUG No.
1-	Commissioner, Bareilly Div. Bareilly	2455661 2455662 2455663		2550501 2550402 2550503(F)	9454417495
2-	District Magistrate, Bareilly	2473303 2457043		2557147 2558764 2557001(F)	9454417524
3-	Addl.District Magistrate(F/R)	0581-2457150		0581-2472542	9454417595
4-	Addl.District Magistrate(E)	0581-2457148		0581-2553560	9454417197
5-	Addl.District Magistrate(C)	0581-2457042		0581-2551110	9454417198
6-	City Magistrate	0581-2457151		----	9454417199
7-	Add. City Magistrate(I)	----		----	9454417200
8-	Add. City Magistrate(II)	----		----	9454417201
9-	Sub Distt.Magistrate, Sadar(Bareilly)	----		-----	9454417203
10-	Sub Distt.Magistrate, Baheri	05822-222584		-----	9454417204
11-	Sub Distt.Magistrate, Aonla	05823-232048		-----	9454417999
12-	Sub Distt.Magistrate, Nawavganj	05825-226548		-----	9454418001
13-	Sub Distt.Magistrate, Faridpur	05821-224501		-----	9454418002
14-	Sub Distt.Magistrate, Meegranj	0581-2565220		-----	9454418003
15-	Tehsildar, Sadar	----		0581-2557490	9454418005
16-	Tehsildar, Baheri	----		----	9454418006
17-	Tehsildar, Aonla	----		----	9454418007
18-	Tehsildar, Nawavganj	----		----	9454418008
19-	Tehsildar, Faridpur	----		----	9454418009
20-	Tehsildar, Meerganj	----		----	9454418010

PHONE NUMBERS-DISTRICT LEVEL OFFICERS

S.N o.	Officer's Post	Office No.	Tel.	Residence Tel. No.	Movile/CUG No.
1-	Chief Development Officer	2511011		2511299	9454464642
2-	V.C. Bareilly Development Authority	2300081 2301299		320400	9568006400
3-	Nagar Ayuct, Nagar Nigam Bareilly	2550074 2567781		2567468	9412388102 7055672200
4-	Add.NagarAyuct, Nagar Nigam, Bareilly	2572991		2568181	7055673300
5-	Chief Treasury Officer	0581-2427160		0581-2557605	8765923602
6-	P.D., DRDA	0581-2423706		---	9454464643
7-	District Development Officer	0581-2511871		---	9454464644
8-	D.S.W. Officer	0581-2422584		---	8057742005
9-	D.S.W.Officer (Devlopment)	---		0581-2511158	9415361377
10-	D.H.W. Officer	0581-2420490		---	9897747153
11-	ZilaPichraVargKalyan Officer	---		---	9335586695
12-	ZilaAplsnkhyakKalyan Officer	0581-2511273		---	9897747153
13-	ZilaPloveshan Officer	0581-2422052		---	9415766100
14-	Asstt.Engineer (Minor Errigation)	---		---	9412506638
15-	D.S.T. Officer	0581-2427470		9412272106	8765974211
16-	Up KrishiNideshak	0581-2515236		9452592695	9235629564
17-	ZilaKrishi Officer	0581-2511025		7376208992	9235629715
18-	ZilaKrichiRaksha Officer	0581-2425327		7376208992	9235629568
19-	ZilaPanchyat Raj Officer	0581-2420233		---	9412332721
20-	Asstt. Director, Fish	0581-2422615		9456919991	9837830610
21-	Chief Animal Medical Officer	0581-2429635		---	9458551780
22-	ZilaKarykramOfficer	0581-2510586		---	9450890824
23-	Ex.Engineer,	0581-2425550		---	9756202457

	GraminAbhiyantranVikas			
24-	Ex.Engineer, Provincial Div. PWD Bareilly	0581-2511213	8439817314	9412392800
25-	Ex.Engineer, Construction Div. PWD Bareilly	0581-2511816	0581-2511872	9415132262
26-	Ex.Engineer, Construction Div. First PWD Bareilly	---	---	9452007499
27-	Ex.Engineer, Construction Div. Second, PWD Bareilly	0581-2427298	0581-2421610	9411007588
28-	Ex.Engineer, Electrical, PWD	0581-2427129	---	9415150174
29-	Ex.Engineer, Construction Div. Bridge & Road	---	---	9837216370
30-	Ex.Engineer, Vidhut Vitran Khand (First)	0581-2422284	---	9415901649
31-	Ex.Engineer, Vidhut Vitran Khand (Second)	0581-2422979	---	9415901660
32-	Ex.Engineer, Tubewell- First	0581-2519639	0581-2429872	9454414440
33-	Ex.Engineer, Tubewell- Second	0581-2519379	0581-2427434	9454414290
34-	Ex.Engineer, Rohilkhand Canal	0581-2429671	0581-2427313	9839080479
35-	Ex.Engineer, Errigation Div.	0581-2420883	---	8004623052
36-	Ex.Engineer, Flood Div.	0581-2511664	---	8859033222
37-	Ex.Engineer, Jal Nigam	----	9532501191	9473942569
38-	Pariyojana Manager, Rajkiya Nirman-First	0581-2567038	9897794079	9793490999
39-	Dy. Director, Bhoomi Sanrakshan	0581-2303565	---	9415526178

	Officer, IWMP			
40-	Ex.Engineer, UP State Construction and Infrastructure Development Cor. Lt.	0581-2457302	0581-2528458	9837230495
41-	PariyojnaPrabandhak C. and D.S.	0581-2585330	---	---
42-	UP PariyojnaPravandhak Setu Nigam	0581-2573628	---	8765973229
43-	G.M. RajkiyaNirman Nigam	---	---	9412067578
44-	Principal Dayat, Faridpur	---	---	9412179136
45-	D.I.O.S.	0581-2427433	9012696566	9454457296
46-	B.S.A.	9453004109	9045070952	9453004109
47-	Principal, Bareilly College Bareilly	---	---	9897779083
48-	Principal, NavodayaVidhalya	0581-2907087	0581-2903027	9415774413
49-	Principal, Kast Kala Kendra	0581-2510372	---	8791485450
50-	Regional, Higher Education Officer	0581-2423799	0581-2510128	9411036685
51-	Principal, I.T.I.	0581-2480291	9917672786	7408414326
52-	Principal, Polytechnic	0581-2560297	---	9457286710
53-	Principal, Mahila Polytechnic	0581-2560157	---	9412372262
54-	Dy.Director Industry, ZilaUdhyog Kendra	0581-2510699	0581-2511158	9412556587
55-	ZilaKrishi Officer	0581-2511025	7376208992	9235629715
56-	BhoomiSanrakshan Officer	0581-2300192	9412156352	9235629569
57-	District Horticulture Officer	0581-2302098	---	9411846006
58-	D.S.O.	0581-2510892	0581-2557156	9415258110
59-	ZilaYuvaKalyan Officer	---	---	9412130038
60-	ZilaSamanvyak, Nehru Yuva Kendra	0581-2420531	---	9411215977

List of Police Officer's Mobile Number

S.N o.	Officer's Post	Office No.	Tel.	Residence Tel. No.	Movile/CUG No.
1-	Sr.Suprintendent Of Police	2457021		2427003 2510500	9454400260
2-	S.P. City	-		-	9454401035
3-	S.P. Rural	-		-	9454401033
4-	S.P. Traffic	-		-	9454401032
5-	S.P. Crime	-		-	9454401034
6-	C.O. First	-		-	9454401322
7-	C.O. Second	-		-	9454401323
8-	C.O. Third	-		-	9454401324
9-	C.O. Fourth (Line)	-		-	9454405755
10-	C.O. LIU	-		-	9454401705
11-	C.O. Baheri	-		-	9454401326
12-	C.O. Meerganj	-		-	9454401327
13-	C.O. Aonla	-		-	9454401325
14-	C.O. Nawavganj	-		-	9454401328
15-	C.O. Faridpur	-		-	9454401329

List of Medical Services Mobile Number

1-	Chief Medical Officer	0581-2472289 0581-2550028	0581-2427077	9412289011
2-	Deputy Chief Medical Officer	0581-2450009	-	-
3-	K.K. Hospital	0581-2443037	-	-
4-	Sheel Hospital	0581-2440048	-	-
5-	Holly Hospital	0581-2578079	-	-
6-	Saran Hospital	0581-2570807	-	-
7-	Clara Swain Hospital	0581-2570995 0581-2575831	-	-
8-	Child Care Center	0581-2452203	-	-
9-	District Hospital Emergency	0581-2557014	-	-

List of Fire Services Mobile Number

S.No.	Officer's Post	Office Tel. No.	Residence Tel. No.	Mobile/CUG No.
1-	Chief Fire Officer	0581-2567098	-	9454418340
2-	Fire Brigade Control Room	05944-243665	-	9454418503
3-	Baheri Fire Station	-	-	9454418504
4-	Baheri Control Room	-	-	9454418505
5-	Faridpur Fire Station	-	-	9454418506
6-	Faridpur Control Room	-	-	9454418507
7-	Parsakhera Fire Station	-	-	9454418508
8-	Parsakhera Control Room	-	-	9454418509
10-	Nawabganj Fire Station	-	-	9454418510
11-	Nawabganj Control Room	-	-	9454418511

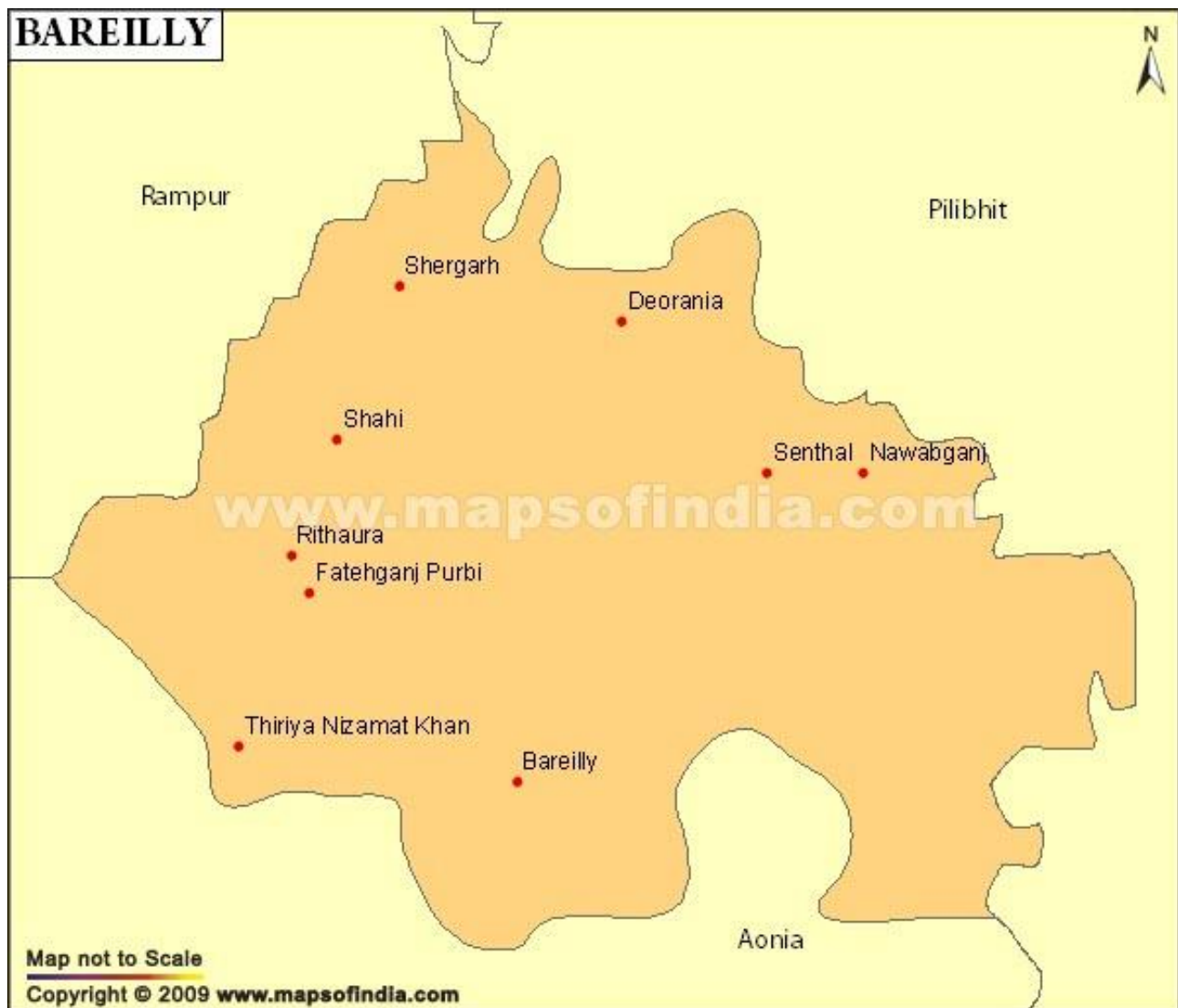
EMERGENCY VEHICLES AVAILABLE IN BAREILLY DISTRICT

S.No.	TYPE OF VEHICLE	NUMBER
1	Catterpillar 424 Backside Loader	09
2	Crane	39
3	Disposal Hydra Crane	01
4	Earth Moving Machine	113
5	Excavator Loader	20
6	Hunter Mini Dumper	01
7	Hydraulic Mobile Crane	18
8	JCB	163
9	Ambulances	368
10	Fire Tenders	11

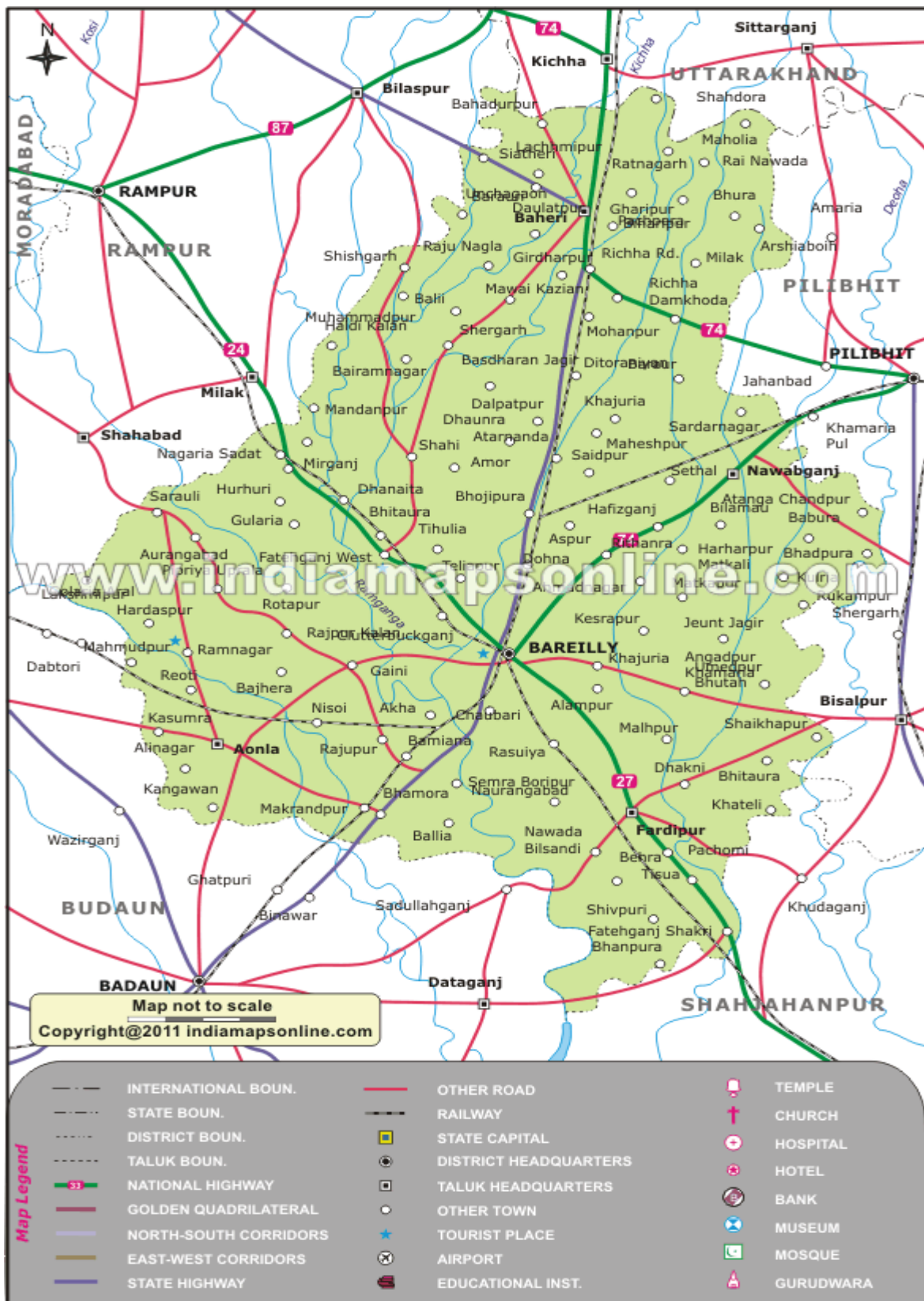
COORDINATING OFFICIALS FROM VARIOUS DEPARTMENTS OF BAREILLY DISTRICT (w,r,t, Disaster Management coordination, we have got the Nodal Officers and Key Response Persons from each Department. In order to maintain sustainability, we have got the names of back-up officials for each Nodal Officer / Key Response Person)

S. No.	DEPARTMENT	NODAL OFFICER /BACK-UP	KEY RESPONSE PERSON / BACK-UP
1	CPWD	Mr Satish Kumar (E.E.)	Mr R. N. Bansal (A.E.)
2	RES	Mr Moh. Akram (E.E.) Mr Rjeev Saxena	Mr Niamat Ullah Mr P.K. Aggarwal
3	Health Department	Dr Vijay Yadav (CMO) Dr S.S. Chauhan	Dr Ashoke Dr D.P. Singh
4	BDA (Bareilly Development Authority)	Mr Surendra Prasad Singh (Secretary) Mr Ajay Kumar (Dy Secretary)	Mr Nitin Mittal (Chief Town Planner) Mr Jaheeruddin (E.E.)
5	Construction & Design Services (U.P.Jal Nigam)	Mr O.P.Singh (Project Manager) Mr Neeraj Goswami (Sr Resident Engineer)	Mr Narendra Kumar (Resident Engineer) Mr Himanshu Saxena (Resident Engineer)
6	Regional Higher Education Office	Dr Ram Prakash Yadav (Regional Higher Education Officer)	Mr Navneet Vshishtha (Sr Accounts Officer)
7	GTI	Mr Sayyad Ali Huzoor (Principal) Mr J.P.Saxena (Instructor – Draftsman Civil)	Mr Virendra Singh (Instructor – Surveyor) Mr Ummed Singh (Instructor – Surveyor)
8	PWD	Mr V.K. Srivastava (S.E.) Mr A.K.Gupta (Staff Officer)	Mr Sanjeev Bhardwaj (E.E.) Mr Aditya Kumar
9	Fire Department	Mr K.N. Rawat (CFO)	Mr Chandra Shekhar Yadav (FSO) Mr Rayuddin Ali (FSSO)
10	DIOS (District Inspector of Schools)	Mr Munnay Ali (DIOS) Mr Vikas Pathak (Accountant)	Mr K.P. Singh (Principal GIC, Bithri Chaynpur)
11	Animal Husbandary Department	Dr Vinod Kumar (CVO) Dr Shiv Kumar (Dy CVO)	Dr K.P. Singh (Dy CVO)
12	U.P. State Bridge Corporation	Mr B.K. Sen (Dy Project Manager) Mr Deven Verma (AE-Mech.)	Mr Prafful Kumar (AE-Civil) Mr Raj Kumar Srivastava (JE-Civil)
13	BSA (Basic Shiksha Adhikari)	Mrs Chandna Ram Iqbal (BSA) Mr Arvind Pal (Distt. Coordinator – Civil)	Mr Devesh Rai (BEO) Mr Sanjay Bharti (BEO)
14	Rohilkhand Canal / Flood Division	Mr Umesh Kumar (E.E.)	Mr Girijesh Kumar (AE)

BLOCKS IN DISTRICT BAREILLY



ROAD & RAIL ROUTES IN DISTRICT BAREILLY



TEHSILS OF DISTRICT BAREILLY

