

ਦਫਤਰ ਡਿਪਟੀ ਕਮਿਸ਼ਨਰ, ਰੂਪਨਗਰ।

(ਸਦਰ ਕਾਨੂੰਗੋਂ ਸ਼ਾਖਾ)

ਸੇਵਾ ਵਿਖੇ

ਸੁਪਰਡੈਂਟ ਗ੍ਰੇਡ-1 (ਡੀ.ਐਮ.-1 ਸ਼ਾਖਾ)
ਮਾਲ ਪੁਨਰਵਾਸ ਅਤੇ ਡਿਜ਼ਾਸਟਰ ਮੈਨੇਜਮੈਂਟ ਵਿਭਾਗ,
ਪੰਜਾਬ ਸਿਵਲ ਸਕੱਤਰੇਤ-1,
ਪੰਜਾਬ, ਚੰਡੀਗੜ੍ਹ।

ਨੰਬਰ. 1758 / ਸ.ਕ(ਫ) ਮਿਤੀ. 06.08.2021

ਵਿਸ਼ਾ:- DDMP- 2021 ਭੇਜਣ ਸਬੰਧੀ।

ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਸਬੰਧੀ ਆਪ ਜੀ ਨੂੰ ਜ਼ਿਲ੍ਹਾ ਰੂਪਨਗਰ ਦਾ DDMP-2021 ਤਿਆਰ
ਕਰਦੇ ਹੋਏ ਇਸ ਪੱਤਰ ਨਾਲ ਨੱਥੀ ਕਰਕੇ ਸੂਚਨਾ ਅਤੇ ਅਗਲੇਰੀ ਯੋਗ ਕਾਰਵਾਈ ਹਿੱਤ ਭੇਜਿਆ ਜਾਂਦਾ ਹੈ।
ਨੱਥੀ: ਉਕਤ ਅਨੁਸਾਰ।


ਜ਼ਿਲ੍ਹਾ ਮਾਲ ਅਫਸਰ,
ਵਾ: ਡਿਪਟੀ ਕਮਿਸ਼ਨਰ,
ਰੂਪਨਗਰ।

CHAPTER 01

INTRODUCTION

Disasters like flood whether natural or man-induced are creating a great loss to all sorts of life- human beings, animals, plants and resources- buildings, and infrastructure and above all cause psychological problems. Floods are increasing with the move to material civilization, urbanization and industrialization. With this new cult, even natural disasters are occurring because of the disturbances in natural equilibrium caused by the greed and lust of human beings to exploit natural resources to get rich quickly. World Bank in India (January 2007) in its Article, “Two years after the tsunami, South Asia Prepares against Future Disasters”, observes that across the world, natural disasters are growing in number and destructiveness, and their human toll is escalating. In the past 20 years alone, more than 4 billion people have been affected by natural catastrophes from floods, cyclones, and tsunami, earthquakes, landslides, and volcanic eruptions.

Response to Disaster, in the absence of a well-defined plan, would be arbitrary, leading to overemphasis of actions of some actions and absence of other critical actions. A formal plan for managing Disaster is, therefore, necessary. This Disaster management plan has a strong preventive focus which aims at reducing the frequency of occurrence of such Disaster while at the same time; it includes a plan of action for earthquakes, floods, cyclones, epidemics, industrial and chemical accidents, road accidents and fires. At the same time disaster management plan has a strong mitigation aspect as well, which will reduces the frequency of occurrence of such disasters.

1.1 DISASTER MANAGEMENT BASIC CONCEPTS

HAZARD: A potentially damaging physical event, natural phenomenon or human activity that may adversely affect human life, property or social and economic disruption or environmental damage.

VULNERABILITY: The conditions determined by physical, social, economic and environmental factors which increase the damageability or proneness of an individual or community/society to impact of hazards.

RISK: Expected or anticipated losses from impact of a hazard at a given element over a specific period of time.

CAPACITY: The ability of stakeholders to cope with/resist/respond to the effects of a hazard or a catastrophic event.

$$\text{Disaster Risk} = H \times V / C$$

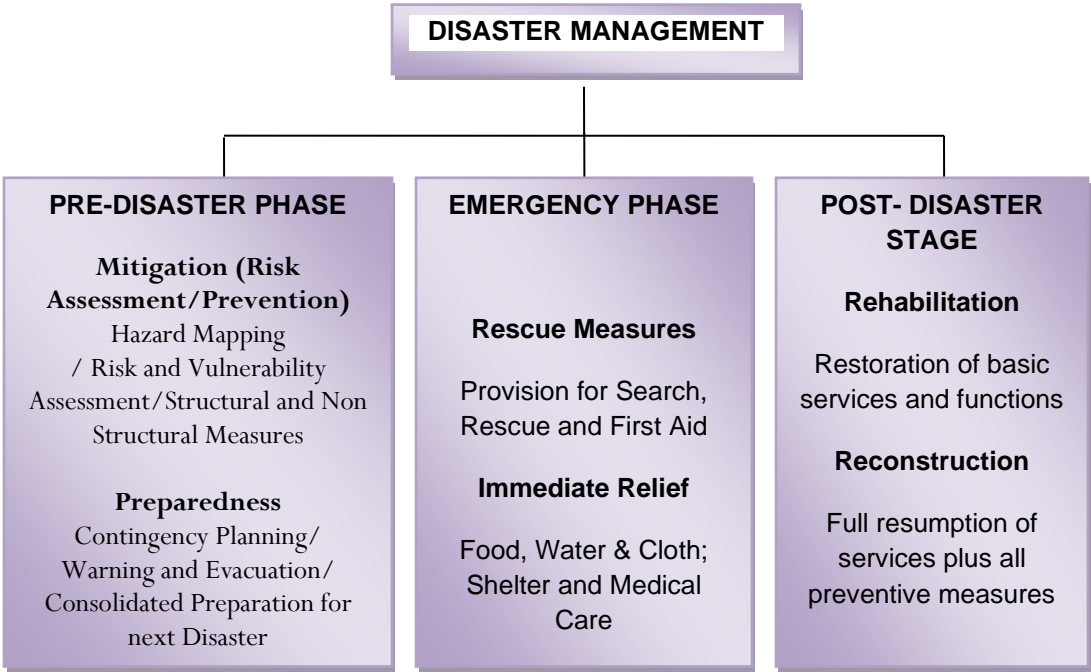
Human vulnerability to disasters is inversely related to human capacity to withstand the effects of disasters.

DISASTER: Disaster Management Act, 2005 defines Disaster as: “Disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-

made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

DISASTER MANAGEMENT: Disaster Management Act, 2005 defines Disaster Management as: “Disaster Management means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary for prevention of danger or threat of any disaster; mitigation or reduction of risk of any disaster or its severity or consequences; capacity building; preparedness to deal with any disaster; prompt response to any threatening disaster situation or disaster; assessing the severity or magnitude of effects of any disaster; evacuation, rescue and relief; and rehabilitation and reconstruction.

1.2 DISASTER MANAGEMENT CYCLE



1.3 NEED FOR PLANNING

Our main aim is to reduce vulnerability and also to minimize the destruction caused by all of these types of Disaster, be it natural or manmade. This is not an easy task and in order to achieve this target and also keeping in view the population and the of multiplicity of the hazards and Disaster, which can occur, we are of firm opinion that the government cannot resolve this issue and the people are not prepared to pay the price in terms of massive casualties and economic losses, the task, though difficult but is achievable.

1.4 OBJECTIVES OF PLANNING

Every planning has its own aims and objectives. The planning of any activity in the district shall be specific and down to earth. For a better development and sustainability of growth a better planning is required.

The basic objective of the District Disaster Management Plan of ROOPNAGAR is to protect all its residents and every kinds of wealth from all sorts of untoward incident through the following sectarian objectives:-

- 1 Institutionalization of disaster management in district administration.
- 2 Encouraging a culture of disaster preparedness in the district.
- 3 Vulnerability reduction and disaster mitigation through better planning process.
- 4 Creation of the best Government mechanism to handle any unprecedented events.
- 5 Instant response and effective decision making in disaster.
- 6 Better coordination of relief and rehabilitation aftermath of a disaster.
- 7 Better coordination of all line departments in disaster management.
- 8 Encouraging and empowering the local community to own disaster management.
- 9 Regular update of resources available in and around the district.
- 10 Mock drill to check the viability and feasibility of implementation methodology.



Fig. No. 2 Methodology of Plan Development

CLASSIFICATION OF HAZARDS

The mode, degree and extent of response to fight out any Disaster depend upon the nature, degree and extent of Disaster, but some of the points are almost common to all kinds of situations. For example, it is to be ensured in all types of Disaster that first of all appropriate prevention steps are to be taken. Secondly, preparedness is required to contain the damages and casualties resulting from the Disaster. Thirdly, steps for reclamation and restoration of community life within a reasonable time will have to be taken care of.

The High Power Committee of Government of India has classified the hazards as follows:-

NATURAL CALAMITIES

1. Floods and Drainage Management
2. Earthquakes
3. Biological crisis or Epidemic of Human/livestock/crops
4. Fire
5. Locust attack
6. Hailstorm

MAN-MADE CALAMITIES

1. **Industrial Disaster**
2. **Radiological Disaster**
3. **Accidents**
 - Railways
 - Road
 - Air
 - Building Collapse
 - Stampede at crowded religious functions/ melas/ processions.
 - Food Poisoning
4. **War**
 - Evacuation of civil population from a particular area
 - Arrangement of transport for the Army
 - Arrangement and supply of essential commodities for the Army
 - Energizing civil defense organization
 - First-Aid and Evacuation of injured people
 - Shifting of casualties
 - Emergency action in case of bomb hit of ordinary or of nuclear nature

Fig. No. 3 Classification of Hazards

The main objectives of various preparedness measures are: -

- i) Minimizing the loss of human lives.
- ii) Minimizing the loss of livestock.
- iii) Minimizing the loss to property and infrastructure.
- iv) Minimizing ill effects on the health of affected population.
- v) Bringing the human activities in the locality to normal condition soon after.

CHAPTER-02

PROFILE OF DISTRICT ROOPNAGAR

2.1 Introduction

The district of Rupnagar is named after its district headquarters, the town of Rupnagar. Formerly known as Ropar, the town of Rupnagar is said to have been founded by a Raja called Rokeshar, who ruled during the 11th century and named it after his son Rup Sen. The town is of considerable antiquity. Recent excavations and explorations conducted at Rupnagar indicate that the first civilized folk to settle here were the Harappa's, who apparently reached the upper Satluj towards the close of third millennium B.C. District was carved out on 1st November, 1966 at the time of re-organization of the State. The District has rich historical and religious significance behind it.

A new district S.A.S. Nagar (Mohali) has been created on 14-04-2006. Two blocks Kharar and Majri of earlier Rupnagar District have been merged with the newly created district.

2.2 Location

Rupnagar district, included in the Patiala Division of Punjab falls between north latitude 30° 57' 59" N and east longitude 76° 31' 59" E. Rupnagar (formerly known as Ropar) town, the district headquarters is 42 Kms from Chandigarh, the state capital. The district adjoins Nawanshahar, Mohali and Fatehgarh Sahib Districts of Punjab. The district comprises 4 Tehsils, Rupnagar, Anandpur Sahib, Nangal and Chamkaur Sahib and includes 624 villages and 6 towns namely Rupnagar, Chamkaur Sahib, Anandpur Sahib, Morinda, Kiratpur Sahib and Nangal. All the towns except Chamkaur Sahib fall on railways line. The Satluj river passes close (2 to 5 km) to the towns of Nangal, Rupnagar and Anandpur Sahib.

2.3 Historical Background

Ropar is a 21 meter high ancient mound overlaying the Shiwalik (also spelt as Sivalik or Shivalik) deposition on the left bank of the river Sutlej where it emerges into the plains. It has yielded a sequence of six cultural periods or phases with some breaks from the Harappa times to the present day. The excavations were carried out by Dr. Y.D. Sharma of Archaeological Survey of India. The migration of the Harappa's to Ropar has been postulated through the lost Saraswati River to the Sutlej as both rivers once belonged to one system.

At Ropar excavation, the lowest levels yielded the Harappa traits in **Period 1**, which falls in the proto-historic period. **Period II** belongs to Painted grey ware people who followed the Harappa's. **From Period III to V** there are fairly rich dwelling complexes with houses of stone and mud bricks. The full plans of the houses could not be exposed owing to the vertical nature of excavations carried out. **Period VI** The next phase, Period VI revealed the evidence of the Sungas, Kushanas and Guptas and their successors. Probably after desertion, a new town sprang up here around 13th century AD on the same site named **Period VI** and it continues to flourish to the present day. An archaeological site museum has been set up to house some of the antiquities of Ropar along with the photographs displaying excavation material.

2.4 Administrative Setup

The district is divided into:

- 5 Tehsils
- 1 Sub Tehsil
- 5 Blocks
- 6 Municipalities/Nagar Panchayat

Tehsils

S.No	Name Of Tehsils
1	Shri Anandpur Sahib
2	Shri Chamkaur Sahib
3	Rupnagar
4	Nangal
5	Morinda

Sub Tehsils

S.No	Name Of Sub Tehsil
1	Nurpur Bedi

Blocks

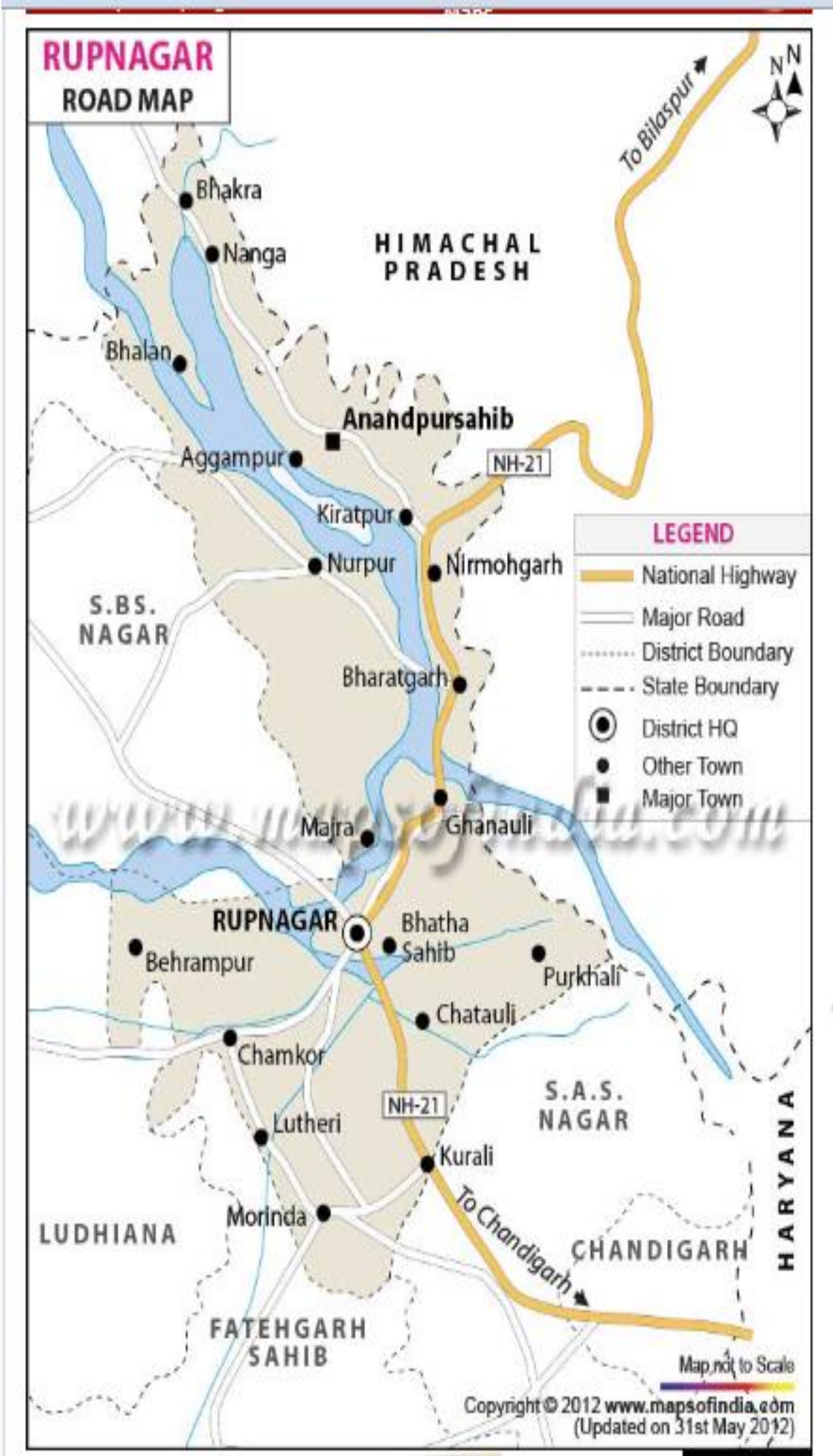
S.No	Name Of Block
1	Shri Anandpur Sahib
2	Shri Chamkaur Sahib
3	Morinda
4	Nurpur Bedi
5	Rupnagar

Municipalities/Nagar Panchayat

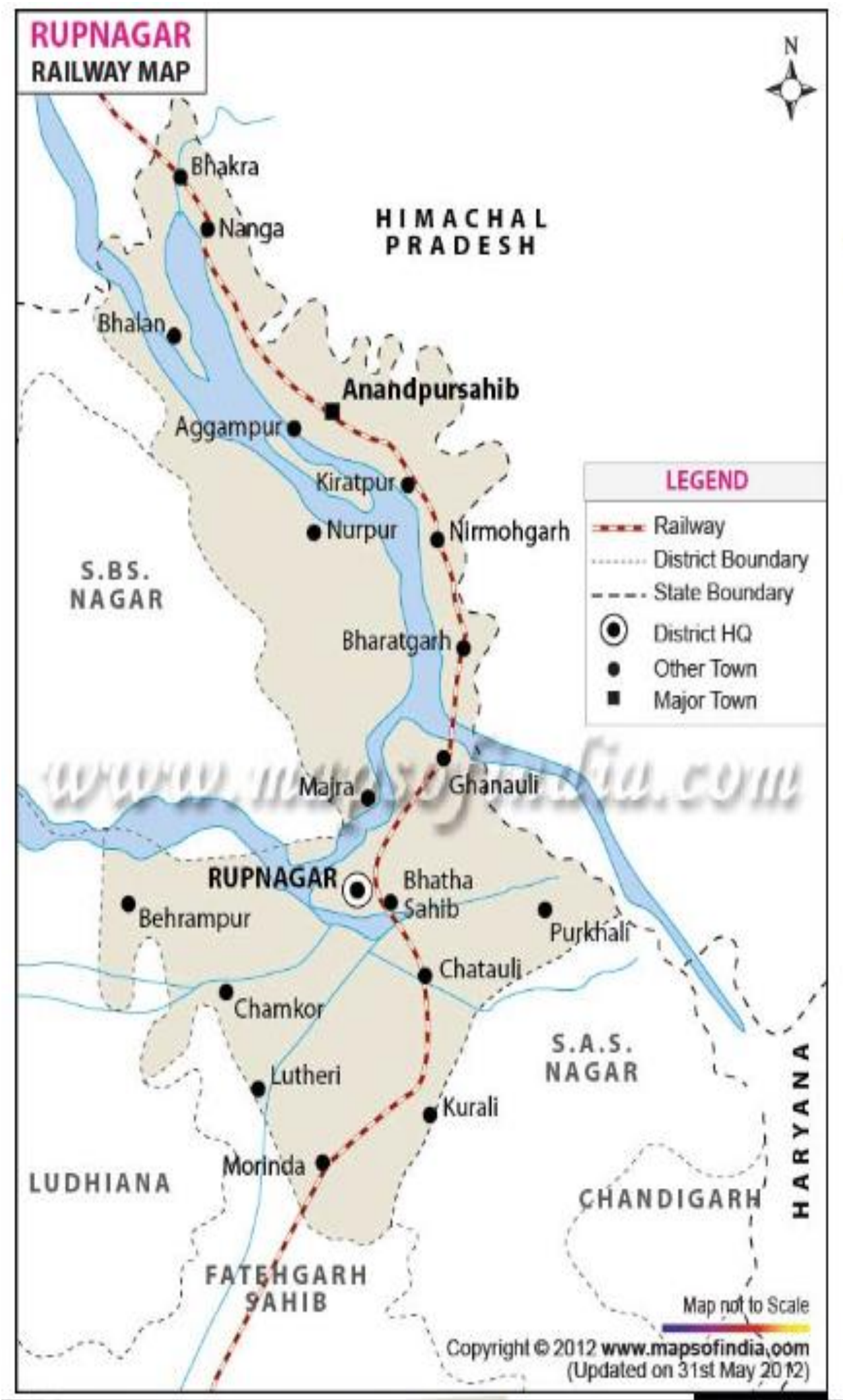
S.No	Name Of Municipalities
1	Shri Anandpur Sahib
2	Morinda
3	Nangal
4	Rupnagar
5.	Kiratpur Sahib (Nagar Panchayat)
6.	Sri Chamkaur Sahib (Nagar Panchayat)

2.5 Transport Network

Road Network of RupNagar District



Railway Map of RupNagar District



River Map of RupNagar District



2.6 District Statistics (Rural) & Population Statistics (Urban)

District Statistics (Rural)

Sr.No.	Particulars	Anand-Pur Sahib	Cham-Kaur Sahib	Morinda	Nurpur Bedi	Rup-Nagar	Total
1	No. Of Villages						
A)	Total	128	112	71	110	196	617
B)	Populated	126	104	70	109	189	598
C)	Be-Charag	2	8	1	1	7	19
2	Population						
A)	Population Rural	135945	71279	63969	96083	130519	497795
B)	- Rural (Male)	70661	38100	34520	50123	70236	263640
C)	- Rural (Female)	65284	33179	29449	45960	60283	234155
D)	No. Of Families	24183	12165	10439	16685	22764	86236
E)	No. Of S.Cs	24599	24830	23643	20016	37781	130869
3	Workers						
	No. Of Workers (Agri.)	21989	11360	13098	18005	15585	80037
	No. Of Workers (Non-Agri.)	34880	16611	15963	26664	34429	128547
	No. Of Literates	86964	45505	42680	58847	85595	319591
4	Area						
	Total Area (Hect.)	31007	19026	13886	34437	37493	135849
	Area Under Forest (Hect)	5301	620	84	11601	8797	26403
	Net Cultivated Area (Hect)	16011	15116	11580	15068	18780	76555
	Total Cultivated Area (Hect)	27970	29042	22457	27473	35027	141969
5	Industry						
A)	Small Industries	-	-	-	3	15	18
B)	Big Industries	-	1	-	-	1	2
6	Educational Institutions						
A)	Primary Schools	140	82	62	111	163	558
B)	Middle Schools	25	13	9	11	17	75
C)	High/Sr.Sec. Schools	23	11	11	23	24	92
D)	Degree Colleges	-	-	-	3	-	3
7	Health						
A)	Primary Health Centers	3	2	2	3	3	13
B)	Sub-Center	22	10	10	17	23	82
C)	Dispensaries	16	8	7	13	11	55
D)	Hospitals-	1	1	-	1	1	4
8	Animals Husbandary						
A)	Vet. Hospitals	7	7	4	7	9	34
B)	Vet. Dispensaries	6	5	7	8	9	35
C)	Semen Centers	9	11	10	11	20	61
9	Co-Operative Societies						
A)	Agriculture	26	18	17	25	22	108
B)	Others	106	94	75	110	109	494
C)	Milk Collection Centers	38	60	58	84	75	315
10	Yellow Card Holders						
A)	S.C.	2725	2749	2523	2795	3557	14349
B)	Non S.C.	6200	2245	2006	6763	4901	22115

Population Statistics (Urban)

Municipal Council	Male	Female	Total
Anandpur Sahib	7400	6489	13889
Nangal	23907	21461	45368
Rupnagar	26057	23102	49159
Morinda	11945	10690	22635
Grand Total			131051

CHAPTER 3

HAZARD AND VULNERABILITY ASSESSMENT

TYPES OF HAZARDS THE DISTRICT PRONE TO

District ROOPNAGAR is highly prone to multi hazards like earthquake, flood, Pollution and Accidents. The low socio-economic development in the district along with the high density of population is one of the most important reasons for this menace. The history of disasters in the district will provide a clear picture of the vulnerability to which the district is prone.

3.1 PROBABILITY PERIOD/SEASONALITY OF DISASTERS

TYPE OF HAZARDS	TIME OF OCCURRENCE	POTENTIAL IMPACT
Flood	June -September	Loss of life, livestock, crop and infrastructure
Epidemics	Anytime	Loss to human life
Fire Accidents	Anytime	Human Loss and house damage
Earth Quake	Anytime	Loss of Life, Livestock and Infrastructure
Industrial Accident	Anytime	Loss to human life and infrastructure
Drought	July-October	Damaged to crops
Forest Fire	May-June and October-November	Environment Degradation
Rail and Road accidents	Anytime	Loss to human life and infrastructure
Stampade	During Festivals and melas	Loss to human life

The made degree and extent of Response to fight out any crisis depends upon the nature, degree and extent of disaster, but some of the points are almost common to all kinds of situations.

3.2 Accident Prone Areas In Roopnagar

Sr. No	District/City	City/Towns (For references)
1	Roopnagar	Jawahar Market M.P. Kothi ,Nangal.
2	Roopnagar	Verka Chowk Anandpur Sahib.
3	Roopnagar	Bus Stand Anadpur Sahib.

4	Roopnagar	Patalpuri Chowk Kiratpur Sahib.
5	Roopnagar	Singh Bhagwantpur, Sadar Roopnagar.
6	Roopnagar	Bunga Sahib Sadar Roopnagar.
7	Roopnagar	BadaPind Sadar Roopnagar.
8	Roopnagar	Malikpur Sadar Roopnagar.
9	Roopnagar	Pind Boothgarh, Morinda.
10	Roopnagar	Kainour Roopnagar Morinda Road Morinda.
11	Roopnagar	New Bus Stand City Roopnagar.
12	Roopnagar	Bhatha Sahib Chowk City Roopnagar.
13	Roopnagar	Sirhind Nehar Bridge near CIA Mour City Roopnagar.

3.3 Water and Climate Related Disasters

3.3.1 Floods

Floods have been recurrent phenomena in monsoon season in varying magnitude. It brought miseries to number people in rural areas and drastic effect on agriculture produce. Sometimes, water remains standing in flood plain areas for long span of time hampering the Rabi crops. The low lying flood plain area has little habitat and it's reclaim for agriculture purposes. The recent years have witnessed an extensive reclamation of cultivable land in the floodplain. Agricultural families have been settled here in large numbers.

FLOOD PRONE VILLAGES

Sub-Division	High Flood		Medium Flood	Low Flood
Nangal	BELA DHIANI BELA RAMGARH ALGRAN HARSA BELA		JOHAL DABKHERA DRAOLI PLASI NANGRAN MJARI	BHLLAN BHANGAL MEHNDPUR
Sri Anandpur Sahib	LODHIPUR MATAUR BALLOWAL MJARA TAPRIYAN HARIWAL BADHAL LOWER MEHNDLI KALLAN NIKKUWAL CHANDPUR JAGGPUR BURJ BASS KOTLA DASS GRAN MEHAN KHMERA SHAHPUR BELA TIRAK KARMA	TIRAK GANDHI DADHI HARDO NIMOH BASSI BHENNI GOBINDPUR BELLA AMARPUR BELA MOTHAPUR MAJRA KHERI CHAONTA SARAYEN BAYEHARA SANGATPUR THANA SAIDPUR SWAR	AGAMPUR KIRATPUR SAHIB KALYAN BALH BHOTOLI SHEKHPURA CHANAULI MAWA RAULI JHINJRI NAGGAL MADHOPUR DHIRPUR BTARLA ABIYANA KALAN ABIYANA KHURD GARHBAGGA CHAJJA	LANG MJARI MJARA BADHAL UPPER DHER MANGEWAL MUKARI LAKHNO SASKAUR MEERPUR TIBBA TAPRIYNA BAJRUR SARTHLI LEHRIYAN ASALATPUR BHAOWAL DUMEWAL PACHRANDA
Rupnagar	CHOTI JHAKHIYAN BELI MAJARI AWANKOT AASPUR KOTBALA CHAK DHEERAN MIYANI	JAHAGRIR PATYALAN BAHADURPUR KATLI GUNNO MAJRA LODHI MAJRA MADDO MAJRA ALAMPUR	LOHGARH FIDDE	DBURJI
Sri Chamkaur Sahib	SURTAPUR MAKKKOWAL KALAN SURTAPUR MAND SULTANPUR FASE MAND SULT RASEEDPUR MALEWAL KALAN		BALSANDHA SALAPUR MUGALMAJRA	

3.3.2 Heat Wave

Extreme positive departures from the normal maximum temperature result in a heat wave during the summer season. As per the climatic characteristic of district, a very hot summer, during the pre-monsoon months often continues till June, in rare cases till July. Abnormally high temperatures lead to human mortality and discomfort. Warm temperate in pre-

monsoon season with dry, hot and arid climate condition of the district, due to this heat waves in mid –day time often flow throughout of district that cause of casualties in during summer season.

3.3.3 Cold Wave

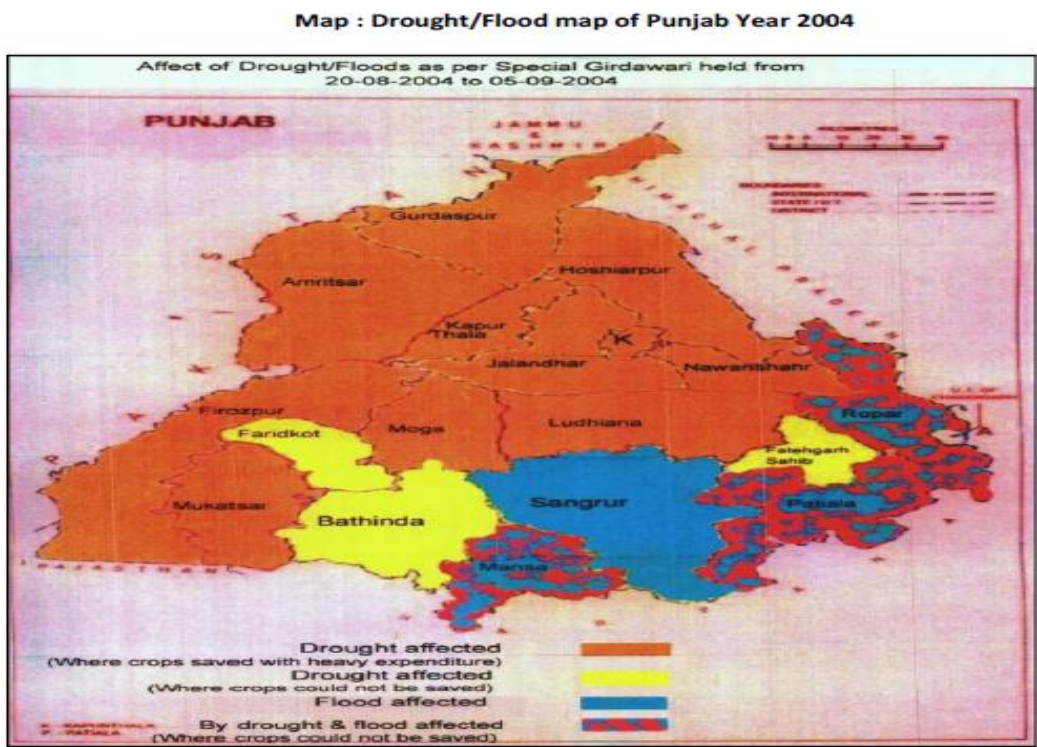
Occurrences of extreme low temperature in association with incursion of dry cold winds that influenced by western disturbances. The frequencies of the occurrence of cold waves have increased due to deterioration of the air quality and climate change. District has face to casualties from cold wave and this could be due to poor level of development and lack of shelters to the outdoor workers, farmers and poor people.

3.3.4 Hailstorm, Thunder storm, Dust storm and Wind Storm

April to June is the period with the highest incidence of hailstorm, thunderstorms and dust storms. Violet squalls (Andhis) often company such storms. Punjab State often gets affected by moderate to heavy hailstorms. In the past such hailstorms have often affected the standing crops, trees, vehicular traffic, telecommunication services, live stock damage etc. Some of the thunderstorms do not give any appreciable rain, but others often accompanied with heavy rain and occasional hail. Thunderstorms also occur in the winter months in association with passing western disturbances. Fogs sometimes dense occur in the cold season.

3.3.5 Drought

The primary cause of drought is dry, hot and arid climate condition of district, prolonged dry weather condition and delay of Monsoon in this region directly hit to crops and agriculture allied sector, therefore, it’s difficult to manage for farmers to save their crops by making a heavy expenditure. District had experience of drought and some time drought like condition such years:- 1987, 2002,2004.

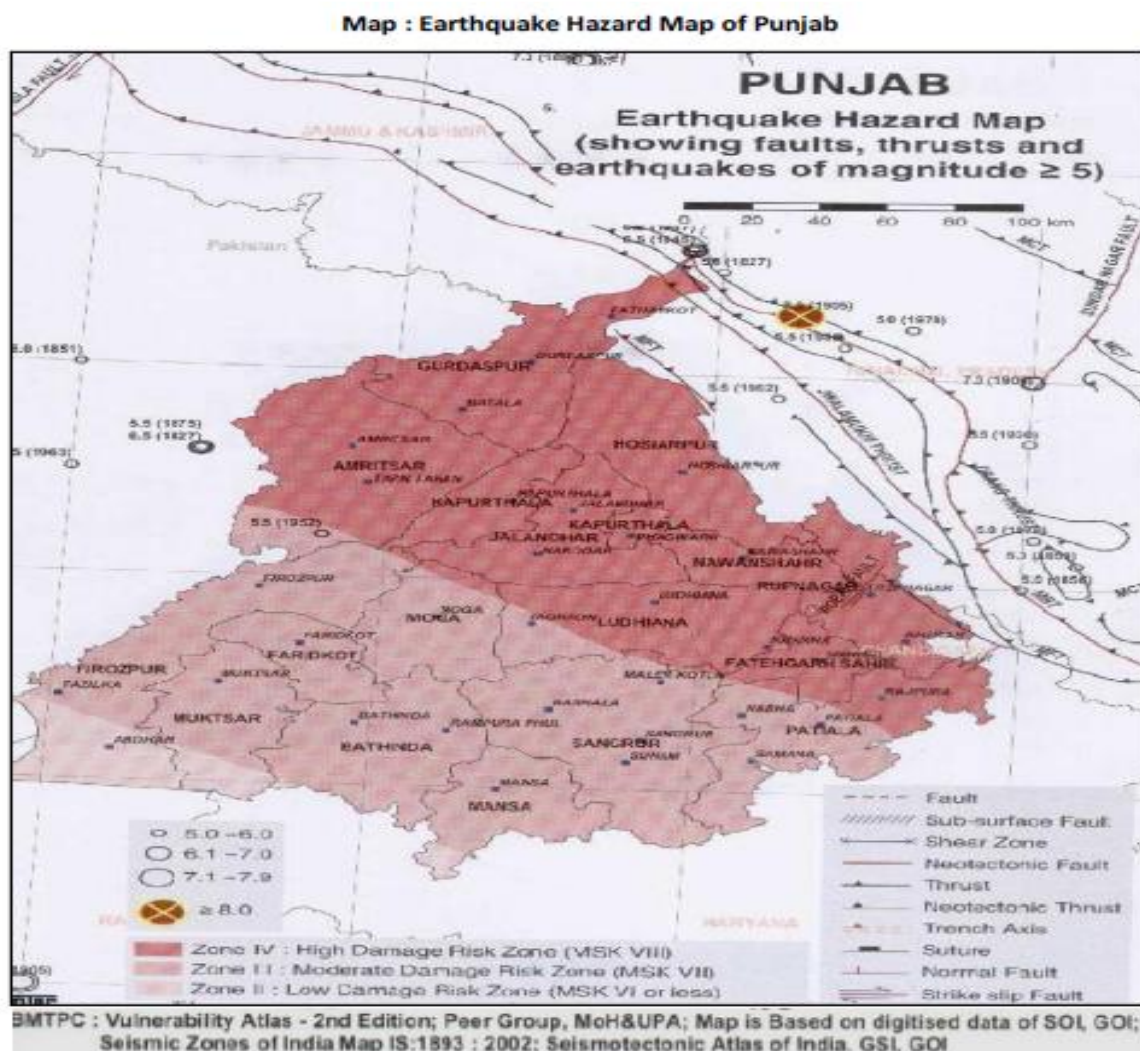


Source – Punjab Remote Sensing Centre, Ludhiana

3.4 Geological related disasters

3.4.1 Earthquake

An earthquake is a phenomenon that occurs without warning and involves violent shaking of the ground and everything over it. It results from the release of accumulated stress of the moving lithospheric or crustal plates. The earth's crust is divided into seven major plates, that are about 50 miles thick, which move slowly and continuously over the earth's interior and several minor plates. Earthquakes are tectonic in origin; that is the moving plates are responsible for the occurrence of violent shakes. The occurrence of an earthquake in a populated area may cause numerous casualties and injuries as well as extensive damage to property.



3.5. Chemical and Industrial disasters

3.5.1 Chemical and Industrial Disaster

Chemical and Industrial disaster: Chemical and industrial disasters are occurrence of emission, fire or explosion involving one or more hazardous chemicals in the course of industrial activity (handling), storage or transportation or mechanical, civil, electrical or other process failures due to accident, negligence or incompetence, spill over to the areas outside the plant or in an industrial plant or due to natural events leading to serious effects inside or outside the installation likely to cause loss of life and property including adverse effects on the environment. Chemical accident or emergency can result in extensive damage to the environment with considerable human and economic costs.

3.6 Accidents related Disasters

3.6.1 Fire

According to HPC Committee report, fire is one of the major causes of accidental related disaster such as Forest fire, Urban fire, Festival fire, Electrical fire and village fire. District is vulnerable to all of these types of fire but further it divided in two types of fire, one is domestic fire and other is crop fire these accidents are occur due dry and hot climate condition , Short-circuiting is often a result of illegal connections, low quality wiring, loose electricity wirings added with high density of residents and market areas, LPG cylinder bursts, Poor market construction conditions and a very high density of population which makes these areas highly vulnerable to fire risk and therefore even if single major cause is taken, of, not only would it lead to saving innumerable lives and properties but also cut down on expenditure incurred on fire mitigation. There had been several crop fire accidents in the period of in April to June in every year due to dry field condition harvest fire risk but no human loss in such type of fire but environmental and economically losses are common in this period. Poor fire services, High population density, crowded streets, poor and unplanned old construction, inadequate water supply, poor electrical services, unplanned sitting of fire stations, encroachment are few examples of ineffective planning which adversely affect the fire response time. The developmental activities are in full swing in the sub-urban area, with complete disrespect to environment and fire safety aspects in absence of regulatory laws exempted in these areas. Many of the problems are attributable to the lack of awareness and knowledge about the concept of fire safety. The designers of the buildings have no formal education in the fire safety management. Fire services has also failed to participate in urban planning process, either the part of the urban affairs or have not possess adequate and reliable data base to project their concern in the planning process. They have also failed in providing an interactive forum for the architects, planners, citizens and the fire professional to discuss and resolve the issue causing concern to each other.

3.6.2 Road Accidents

The rapid expansion of road transport has brought with it the challenges of addressing adverse factors such as the increase in road accidents. Most deaths and injuries due to road accidents are invisible to society. They are hidden epidemic. Motor vehicles including two wheelers are growing at faster rate than the economy and population growth. Road accident is one of the top nine reasons for deaths in our country. The problem of road safety is acute in our county. **Thirteen people die every hour in road accidents in the country.**

India suffers from the highest number of deaths. In the year 2008, alone number of road accidents were 4.8 lakh resulting in close to 1.2 lakh deaths and 5.2 lakh injured. Many of whom are disable for rest of their lives and many of these victims are economically active young people. Road accidents due to poor road infrastructure and dangerous driving habits, growing drinking and driving habits, and failure to comply with speed limits, refusal

to use proper motorcycle helmets and use child car seats, are among the main factors contributing to deaths from road crashes. The reason for this increase in traffic is that a large numbers of drivers are able to walk away with licenses without getting a proper training. Road accidents not only cause grief to the families affected but also hamper family income as well as national economy.

3.7 Biological Related disasters

3.7.1 Epidemics

Infectious diseases are a major public health problem. While many infectious diseases like tuberculosis and malaria are endemic, some of them occasionally attain epidemic proportion. An epidemic refers to an increase, often sudden, in number of cases of a disease in a community clearly in excess of what is normally expected in that population. Epidemics are public health emergencies which disrupt routine health services and are major drain on resources. Epidemics include viral infections disease (mengitis, measles, dengue, polio, typhoid fever etc.) and Bacterial infectious diseases (cholera, diarrhoea etc.) The main causes for epidemic are non availability of clean and hygienic drinking water contamination of drinking water sources, lack of awareness about sanitation, unhygienic food, overcrowding, biological conditions in addition to ecological factors. Several factors related to microbes, environment and host susceptibility contribute to the occurrence of epidemics. Because of prevalence of these factors, developing countries including India are frequently affected by epidemics/ outbreaks which result in high morbidity and mortality and affect the public health and economy adversely.

Most of the outbreaks/epidemics related to water-borne diseases, vector-borne diseases and vaccine preventable diseases. While National Vector Borne Diseases Control Programme (NVBDCP) is the key programme for prevention/ control of outbreak of epidemics of malaria, dengue, chikungunya etc, vaccines administered under UIP/EPI reduce the morbidity and mortality due to diseases like measles, diphtheria, pertussis, poliomyelitis etc. Availability of safe water and adoption of personal and domestic hygienic practices are important measures to prevent/control epidemics of water-borne diseases like cholera, viral hepatitis etc.

3.8 Others Disaster

3.8.1 Stampede The term stampede is applied to a sudden rush of a crowd of people, usually resulting in many injuries and death from suffocation and trampling. In stampede, the term mob or crowd is used to refer to a congregated, active, polarized aggregate of people, which is basically heterogeneous and complex. Its most salient features include homogeneity of thought and action among its participants and their impulsive and irrational actions. Discuss the types of hazards faced and identify the risk level of each hazard. The vulnerability assessment should be done for each village/town of the District. Also, a list of past disasters and their impact will be useful for developing the plan. Assessment and prioritization of the hazards and risks that people face, as well as their

ability or inability to cope with and withstand the effects of those hazards. This assessment seeks to:

- Identify the characteristics, frequency and potential severity of the hazards a community faces.
- Identify the particular geographical areas and communities that are most susceptible and vulnerable to those hazards
- Identify the main sectors of a community (population, infrastructure, housing, services, etc.) that could be affected by a specific type of hazard and anticipate how they might be affected.
- Assess the ability of those sectors to withstand and cope with the effects of hazardous phenomena.

CHAPTER 4

INSTITUTIONAL MECHANISM FOR DISASTER MANAGEMENT

Although the primary responsibility of disaster management is of the State Governments, the Central Government plays a key role in providing financial and logistic help to the states in tackling both natural and human induced disasters. Till the recent past, India had an entirely different mechanism for disaster management.

4.1 NATIONAL LEVEL MECHANISM

The administration of natural disaster management is the responsibility of the Ministry of Home Affairs, where as certain disasters such as chemical and biological disasters as well as aviation disasters are dealt by the concerned Ministries. The elaborate structural framework in national level is given broadly for understanding.

4.1.1 National Crisis Management Committee

Cabinet Secretary, who is the highest executive officer, heads the National Crisis Management Committee (NCMC). Secretaries of all concerned Ministries/ Departments as well as Organizations are members of the Committee. The NCMC gives direction to the Crisis Management Group as deemed necessary. The NCMC gives directions to any Ministries/Departments/ Organizations for specific action needed for meeting the Crisis situation.

4.1.2 National Crisis Management Group

The Central Relief Commissioner in the Ministry of home Affairs is the Chairman of the Crisis management Group, which consist of nodal officers from concerned Ministries. The CMGs function includes reviewing every year contingency plans formulated by various Ministries/Departments/ Organizations in their respective sectors. The other functions include:

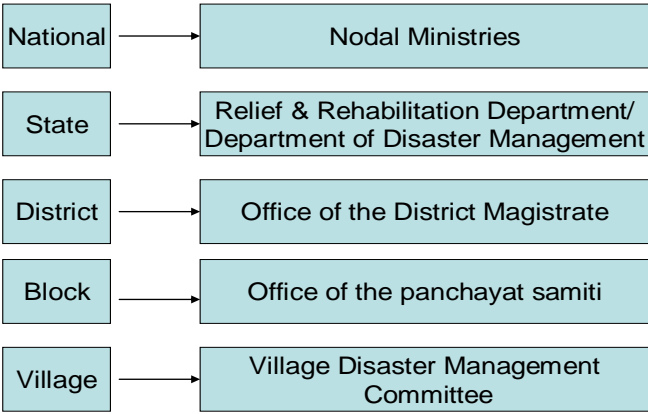
1. To review measures required dealing with natural disaster.
2. Coordinate activities of Central Ministries and state Governments in relation to disaster preparedness and relief
3. To obtain information from the nodal officers on measures relating to the above

4.1.3 National Disaster Management Authority

For better coordination of disaster management in national level, National Disaster Management Authority (NDMA) is being constituted. This is a multi disciplinary body with nodal officers from all concerned departments/ministries/ organizations.

Apart from these developments, the government of India has its national Contingency Action Plan prepared by the nodal ministry of disaster management. Also a National Emergency Operation Centre (NEOC) has been started functioning in the Ministry of Home Affairs with all sophisticated equipments and most modern technologies for disaster management.

Management of disasters at various levels in India



4.2 Institutional Mechanisms at State Level

4.2.1 Punjab Disaster Management Authority (PDMA)

The PDMA is the apex body for disaster management at State level and is headed by the Chief Minister. It lays down policies, plans and guidelines for disaster management and coordinates their enforcement and implementation for ensuring timely and effective response to disasters. It takes other measures which are considered necessary, for the prevention of disasters, mitigation, or preparedness and capacity building, for dealing with a threatening disaster situation. It oversees the provision and application of funds for mitigation and preparedness measures. PDMA has the power to authorise the departments or authorities concerned, to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster.

As per clause b of sub-section (2) of Section 14 of the Disaster Management Act. 2005, the Punjab Disaster Management Authority under the chairperson of the Hon’ble Chief minister was constituted on 22nd/24th February, 2006 with the following persons as member of the PDMA mention in Table no 4.3.

Sr.No	Member	Designation
1.	Chief Minister, Punjab	Ex-Officio Chairperson
2.	Minister Revenue, Rehabilitation and Disaster Management, Punjab	Vice-Chairperson.
3	Principal Secretary, Home	Member
4	Principal Secretary, Finance	Member

5	Principal Secretary, Local Government	Member
6	Finance Commissioner, Revenue	Member
7	P.S.C.M	Member
8	Chief Town Planner, Punjab	Member
9	G.O.C. in Chief, Western Command	Member

Table 4.3 Member of Punjab Disaster Management Authority

4.2.2 State Executive Committee (SEC)

State Executive Committee (SEC), Punjab assists the PDMA in the performance of its functions. The SEC is headed by the Chief Secretary (CS) to the State Government and has four Ex-officio members. SEC coordinates and monitors the implementation of the National Policy, the National Plan and the State Plan. The SEC coordinates and monitors management of disasters in the state. It monitors the implementation of disaster management plans prepared by the departments of the Government of the State and District Authorities.

Table 4.4 Member of State Executive Committee

Sr.No	Officials	Designation
1.	Chief Secretary	Ex-Officio Chairman
2	Financial Commissioner, revenue	Member
3	Principal Secretary ,Home	Member
4	Principal Secretary, Finance	Member
5	Principal Secretary, Local Government	Member

4.2.3 Centre for Disaster Management– Mahatma Gandhi Institution of Public Administration, Punjab

The Centre for Disaster Management in Punjab is Mahatma Gandhi Institution of Public Administration, Chandigarh. It is in partnership with NIDM and other research institutions has capacity development as one of its major responsibilities, along with training, research, documentation and development of a State level information base. It networks with other knowledge-based institutions and functions within the broad policies and guidelines lay down by the PDMA. It organizes trainings for Disaster Management officials and other stakeholders.

State Disaster Management Force (SDRF)

State encourages creating response capabilities from within their existing resources. In this regards, State constitutes State disaster Management Force for effective Disaster management. The State encouraged including DM training in their respective police and gazette and non-gazette officers.

4.3 DISTRICT LEVEL MECHANISM IN ROOPNAGAR

The disaster management will be more effective and sustainable if it is institutionalized. For this purpose Government of India has already passed Disaster Management Act on 23rd December, 2005, where it is clearly outlined that a District Disaster Management Authority, Which is apex body, to be formed at the district level. There are seven members included in this authority. It acts as the district planning, coordinating and implementing body for disaster management in the district.

4.3.1 District Advisory Committee.

The District Authority may, as when it considers necessary, constitute one or more advisory committees and other committees for the efficient discharge of its functions.

Local Authorities- For the purpose of DM policy, local authorities would include PRI, municipalities, District and Cantonment Boards, and town Planning Authorities which control and manage civic services. These bodies ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas and prepare DM plans in consonance with the guidelines of the NDMA, PDMA and DDMA.

District Disaster Management Authority (DDMA)

SR. NO.	DESIGNATION	DDMA
1.	DEPUTY COMMISSIONER	CHAIRPERSON
2.	CHAIRPERSON ZILA PARISHAD	CO-CHAIRPERSON
3.	ADDITIONAL DEPUTY COMMISSIONER	CHIEF EXECUTIVE OFFICER
4.	CHIEF MEDICAL OFFICER	MEMBER
5.	SENIOR SUPERINTENDENT OF POLICE	MEMBER
6.	DISTRICT REVENUE OFFICER-CUM-FLOOD CONTROL OFFICER	MEMBER
7.	MEMBERS OF STATE LEGISLATURE (MLA'S/MP) FROM THE DISTRICT ROOPNAGAR	MEMBER

4.3.2 District Advisory Committee. The District Authority may, as when it considers necessary, constitute one or more advisory committees and other committees for the efficient discharge of its functions

Local Authorities- For the purpose of DM policy, local authorities would include PRI, municipalities, District and Cantonment Boards, and town Planning Authorities which control and manage civic services. These bodies ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas and prepare DM plans in consonance with the guidelines of the NDMA, PDMA and DDMA.

4.3.3 Powers and Functions of District Authority as per section 30 of DM Act.

- i. Prepare a disaster management plan including district response plan of the district
- ii. Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan.
- iii. Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities

- iv. Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the departments of the Government at the district level and the local authorities in the district
- v. Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary
- vi. Lay down guidelines for prevention of disaster management plans by the department of the Government at districts level and local authorities in the district;
- vii. Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- viii. Lay down guidelines to be followed by the Departments of the Government at the district level for purpose of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical assistance therefore;
- ix. Monitor the implementation of measures referred to in clause (viii);
- x. Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give direction to the relevant departments or authorities at the district level for their up gradation as may be necessary;
- xi. Review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the level required for responding effectively to any disaster or threatening disaster situation;
- xii. Organize and coordinate specialized training programmes for different levels of officer, employees and voluntary rescue workers in the district;
- xiii. Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations;
- xiv. Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- xv. Prepare, review and update district level response plan and guidelines;
- xvi. Coordinate response to any threatening disaster situation or disaster;
- xvii. Ensure that the Departments of the Government at the district level and the local authorities prepare their response plans in accordance with the district response plan;
- xviii. Lay down guidelines for, or give direction to, the concerned Department of the Government at the district level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster;
- xix. Advise, assist and coordinate the activities of the Department of the Government at the district level, statutory bodies and other governmental and non-governmental organization in the district engaged in the disaster management;

- xx. Coordinate with, and give guidelines to, local authorities in the district to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the district are carried out promptly and effectively;
- xxi. Provide necessary technical assistance or give advice to the local authorities in the district for carrying out their functions;
- xxii. Review development plans prepared by the Departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
- xxiii. Examine the construction in any area in the disaster and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- xxiv. Identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centres' or camps and make arrangements for water supply and sanitation in such buildings or places;
- xxv. Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- xxvi. Provide information to the State Authority relating to different aspects of disaster management;
- xxvii. Encourage the involvement of non-governmental organizations and voluntary socialwelfare institutions working at the grassroots level in the district for disaster management;
- xxviii. Ensure communication systems are in order, and disaster management drills are carried out periodically;
- xxix. Perform such other functions are the State Govt. Or State Authority may assign to it or as it deems necessary for disaster management in the District.

Powers and Functions of District Authority in the event of any threatening disaster situation or disaster as per section 34 of DM Act.

For the purpose of assisting, protecting or providing relief to the community, in response to any threatening disaster situation or disaster, the district authority may:-

- a) Give directions for the release and use of resources available with any Department of the Government and the local authority in the district.
- b) Control and restrict vehicular traffic to, from and within, the vulnerable or affected area.
- c) Control and restrict the entry of any person into, his movement within and departure from, a vulnerable or affected area.
- d) Remove debris, conduct search and carry out rescue operations.
- e) Provide shelter, food, drinking water and essential provisions, healthcare and services.
- f) Establish emergency communication systems in the affected area.
- g) Make arrangements for the disposal of the unclaimed dead bodies.

- h) Recommend to any Department of the Government of the State or any authority or body under that Government at the district level to take such measures as are necessary in its opinion.
- i) Require experts and consultants in the relevant fields to advise and assist as it may deem necessary.
- j) Procure exclusive or preferential use of amenities from any authority or person.
- k) Construct temporary bridges or other necessary structures and demolish structures which may be hazardous to public or aggravate the effects of the disaster.
- l) Ensure that the non-governmental organizations carry out their activities in the equitable and non-discriminatory manner.
- m) Take such other steps as may be required or warranted to be taken in such a situation.

4.3.4 District Emergency Operation Centre

As per section 29 of DM Act, 2005, the Punjab Disaster Management Authority has provided DDMA, RupNagar a District Response Centre Professionals as officer in charge of EOC for carrying out the functions of district authority. District RupNagar has an exclusive Emergency Operation Centre (EOC) at District Administration Complex, RupNagar. The District EOC is functional on 24X7 basis. The DRCP's will be responsible for the collect data from various departments and agencies for effective Functioning of the EOC. The centre equipped with only Information Technology (IT) based equipments such as two Computers. Further it may be strengthened with internet facilities, GIS based technologies, wireless set, HAM equipments, Power Generator sets, Early Warning Systems, Mobile Control Rooms, Emergency Rescue Kits, Emergency Vehicle, Mobile First-Aid Post, and Ambulance etc.

Considering the unique responsibility of the District Emergency Operation Centre, the equipments provided to it shall not be taken to any purpose other than disaster management. This centre is intended to coordinate all disaster related activities in the district starting from preparedness to rehabilitation and reconstruction.

In case of any emergency there shall be permanent sitting place for each Emergency Support Functionaries (ESFs) in the EOC and they shall be provided with sufficient telephone connections. Only the Nodal ESFs are to sit in the EOC and coordinate the disaster management activities in the district with their support agencies. There shall be dedicated telephone lines and other communication facilities.

Role of Emergency Operation Centre in Normal Time

Responsibilities of the EOC in charge in normal time include:

1. Ensure that all equipments in the EOC are in working condition;
2. Collection data on routine basis from line departments for disaster management
3. Develop status reports of preparedness and mitigation activities in the district;
4. Ensure appropriate implementation of District Disaster Management Plan.
5. Maintenance of data bank with regular updating.

6. Activate the trigger mechanism on receipt of disaster warning/occurrence of disaster.

Role of Emergency Operation Centre during Disaster

On the basis of the message received from the forecasting agencies, warning has to be issued for the general public and the departments, which play a vital role during emergencies. Issuing correct and timely warning would be one of the prime responsibilities of EOC. For effective dissemination of warning EOC should have a well-planned line of communication. The DC shall be the competent authority to disseminate a disaster warning. The warning on occurrence of a disaster will also be communicated to:

1. All Emergency Support Functions
2. Members of DDMA- RupNagar
3. Hospitals in the disaster area
4. State Relief Commissioner
5. Emergency Operation Centre in the neighboring districts
6. National/State Emergency Operation Centre
7. People's representatives from the district

Apart from this the District Emergency Operation Centre must arrange desks for the Emergency Support Function in its complex for better coordination and help. Simultaneously the onsite EOCs are to be set up with the help of the district EOC. Constant communication between the State EOC, District EOC and Onsite EOC is mandatory for updates on the disaster, which happened.

4.3.5 Onsite Emergency Operation Centers

Onsite Emergency Operation Centers (OEOC) are complimentary units to District Emergency Operation Center in the district (EOC), which will operate close to the disaster sites and will be linked directly with the District Emergency Operations Centre. These strategic locations will help to cover operations in a calamity in the district in maximum five minutes time. The concerned SDM is the Commander-in-chief at this level and is responsible of coordinating its functions as per the direction of the Incident Commander with the help of the Incident Management Teams (IMT) with him/her. The OEOCs are physically activated only in time of a disaster. The concerned SDM of the OEOC unit would be responsible to execute activities at disaster site; however the tasks would be controlled and coordinated from EOC through nodal desk officers.

4.4 Civil Defence

The aim of Civil Defense policy of the GOI to keep in readiness civil protection during any emergency under the Emergency Relief Organization (ERO) scheme. The legislation on Civil Defense (CD) known as Civil Defense Act was enacted in 1968 which is in force throughout the country. The Act has since been amended in 2010 to cater to the needs of disaster management so as to utilize the services of Civil Defense volunteers effectively for enhancement of public participation in disaster management related activities in the country. During times of emergencies, the CD organization has the vital role of supporting

the armed forces, mobilizing the citizens and helping civil administration for saving life and property and minimizing damage. A culture of voluntary reporting to duty stations in the event of any disaster will be promoted.

4.5 Fire Services

Fire services are mandate of the Municipal Bodies as estimated in item 7 of Schedule 12 under Article 243 W of the constitution. Fire services are main stakeholder in disaster management. Fire services are crucial immediate responder to disasters. The Basic Life Line of Fire & Emergency Services are fully committed to the common public. The fire services upgraded to acquire multi-hazard rescue capability.

4.6 Home Guard

The role of Home Guards is to serve as an auxiliary to the police in the maintenance of law and order, internal security and help the community in any kind of emergency such as fire, cyclone, earthquake, epidemic etc.

4.7 NCC, NSS and NYKs

Potential of these youth based organisation will be optimised to support all community based initiative and DM training would be included in their programme.

CHAPTER 5

PREVENTION, PREPAREDNESS AND MITIGATION PLAN

Disaster mitigation planning will comprise all activities that can be done for risk reduction. Such activities that need to be undertaken by each department should be identified and compiled. These activities can be planned after ascertaining the condition and status of infrastructure, equipment and manpower at the disposal of each department. The activities may include creation of any new infrastructure facility for risk reduction, repair, retrofitting or upgrading of existing infrastructures; procurement, hiring, or repairing of equipment; recruitment, hiring, and training of volunteers or specialized manpower; and preparation and dissemination of awareness raising and training materials focusing various target groups. The detailed planning of the above activities will lead to preparation of budget for disaster mitigation activities.

The following activities need to be taken up for reducing the future impact of disasters.

- Roads and bridges or culverts
- Communication facilities (satellite telephones, mobile phone network)
- Health facilities
- Search and rescue facilities
- Flood control measures
- Dissemination of earthquake resistant construction techniques
- Disaster awareness through schools

Information, Education, Communication (IEC) materials should be evolved for awareness creation of all stakeholders with a special focus on the communities. The plan will comprise the type of IEC materials (pamphlets, posters, booklets, audio, video, etc.), target group for each (women, children, students, volunteers, community, government employees, etc.), who will prepare, schedule and cost. More emphasis will be given to women volunteers in development of village disaster management activities. Specialized training will be organized at different levels for the disaster management team members for enhancement of skills to effectively carry out their responsibilities such as warning dissemination, search and rescue operation, shelter management, first aid, trauma counseling and damage assessment etc. The DMT members will be provided a specific type of apron or jacket for easy identification after the training. Adequate training will be provided to the women DMTs to carry out activities during emergency situation.

5.1 Disaster Management Information System

The focuses of information management strategy evolve a Disaster Management Information System (DMIS) which will fulfill normal and emergency information needs. The DMIS will facilitate handling of longer term tasks such as vulnerability and risk analysis, capacity and resource mapping, hazard impact and recovery documentation, etc. On the other hand, emergency information management will include: warning dissemination, pre-and post-impact situation monitoring, immediate damage assessment,

emergency response monitoring, documentation, etc. Major tasks to be accomplished for putting in place a DMIS in the state are as follows:

District level DMIS units will be installed at District EOC, which will compile data collected from Block EOCs. The Block will feed all necessary data into the District level DMIS by collecting and compiling the same from Village council levels; DMIS at the state level will receive and compile data and information from all relevant agencies, departments at the state level and EOCs at district, block, and village levels

Modalities for collection of relevant information and documentation of various activities at various levels will be fixed by SDMA and SRAC.

SDMA and SRC (State Relief Commissioner) will together manage the DMIS at the state level; SDMA will be the coordinating point for information management activities relating to preparedness, response, recovery, and mitigation.

The most important task of the DMIS will be to facilitate Emergency Information Management, which will include disaster tracking & warning dissemination, de-warning, situation assessment and reporting, etc.

DMIS will make use of existing and newly installed mechanisms for collecting and compiling data/ information required for various tasks such as preparedness, response, recovery, mitigation, and prevention; and accordingly develop databases for quick and easy reference by agencies involved.

DMIS will develop a GIS Databases on vulnerability, risks, capacities, resources, of communities at vulnerable locations. **GIS Database will focus on surface communication, river network, drainage network, location of emergency shelter,, topography, population, other socio-economic indicators.**

Other Databases to be developed and continuously updated include: Databases on Humanitarian Agencies, Volunteers, Equipment, Communication, Emergency Shelter and other Disaster Management facilities. The Data-Base on Humanitarian Agencies (INGOs, NGOs, other agencies) will focus on their skills, areas of operation, nodal offices, sector specializations, financial and human resources, etc. The database on Volunteers will be based on volunteers directly registered with SDMA and those committed by humanitarian agencies active within and outside the state.

The Database on emergency management facilities will cover emergency shelter, equipment, communication facilities, etc. (in control of government and private sector).

All databases will be managed at the state level by SDMA and SRAC

DMIS will have **vertical linkages** established among agencies involved from the community to the state level and **horizontal linkages** established among agencies involved at state/district/ Village council and community levels. Information Management for Preparedness will include: collection and updating of information required for monitoring preparation of contingency plans, and preparedness exercises at district, block, municipality/village and community levels;

Dissemination of necessary information to relevant agencies and stakeholders will be an important component of tasks accomplished by DMIS, which will be discussed in subsequent sections of this draft.

A major goal of DMIS will be to provide standardised Data/Information to response agencies (active in the fields of health, psychological counselling, social security, reconstruction, logistics, etc.) in order to facilitate early enhance response intervention and improve the quality of such intervention.

5.2 Information Collection and Dissemination:

The chief goal emergency information management is to facilitate timely access to and use of information compiled at different levels. Thus planned flow of information within the state emergency management system and with other stakeholders along a timeline is crucial to successful utilization of the DMIS. The flow of information will be managed keeping mind immediate and long-term needs. This section deals with information flow and dissemination needed for emergency management. Emergency Information Dissemination will focus on Alert, Warning, De-warning. Alert will be issued early to wake up people to the threat of disaster and to keep emergency response and support agencies on alert. Warning will be issued to trigger evacuations and other pre-impact response activities. De-warning will be issued to inform people and agencies about lesser likelihood of a disaster and thus facilitate resumption of normal activities.

In case of warning, emphasis would be on sending clear message regarding action to be taken by people likely to be affected and agencies likely to be involved in the response process. Warning would focus on need for evacuation, if any; emergency shelter; safety tips to people; facilities and support available; agencies extending support; etc.

Alert, Warning, De-Warning will be issued to relevant response and support agencies and EOCs at district/block/municipality/GP levels, who will be responsible for its dissemination through necessary public announcements if necessary to wider public at respective levels; Direct Dissemination of Alert, Warning, De-Warning will also be done at the state level through relevant agencies such as the Information and Public Relations Department; and Mass Media including Radio, TV, Newspapers, Internet, etc.

A timeframe for above activities should be clearly laid out by District EOC.

5.3 Disaster Management Plan :

Concept – to ensure that the following components of disaster management are organised to facilitate planning, preparedness, operational coordination and community participation.

Prevention: the elimination or reduction of the incidence or severity of disasters and the mitigation of their effects.

Response: the combating of emergencies and the provision of immediate rescue and relief services;

Recovery: the assisting of people and communities affected by disasters to achieve a proper and effective level of functioning.

RupNagar district response plan sets out the roles and responsibilities of response organisations within the district, documents co-ordination arrangements, and lists contact details for all agencies and the resources they can provide. It also provides for the co-ordination of support from within and outside the district RupNagar's disaster

management arrangements are designed to deal with all major hazards district is facing. Though the focus of attention has been on the more frequent disasters like floods, Industrial, Chemical hazards earthquake, fire, droughts and transport accidents, the same disaster management arrangements and resources could be used for a wider range of hazards. Landslide, Avalanches, is not considered which is not present here at all due to hill and mountain.

5.4 Prevention responsibility to be integrated with involvement all stakeholders

The management of emergencies is a shared responsibility involving many people and organisations in the community. It is not something done by one sector to or for the rest of the society, although some organisations have specialist roles of this kind. In addition to the response services, most government departments have some role to play. The disaster response role is usually a minor part of the responsibilities. However, many departments have an essential prevention responsibility.

Municipalities, Gram Panchayats, Panchayat Samities and Zila Parishads have essential roles in disaster management. Besides the Government, Voluntary organisations such as Medical institution, the Civil Defence and organizations specialised in search and rescue operations play well-defined roles in disaster management. Public and Private sector organisations/undertakings are often involved when their services and resources are needed for prevention, response and recovery activities or where disasters affect their buildings, equipment, personnel, suppliers or consumers. Individual members of the community are also responsible for taking preventive, protective and restorative actions in their own and community's best interests.

5.5 Mitigation Planning: Suggestions

1. Nodal Officers are appointed in all the District Administrations to implement the Programme at the District, Block and village levels under the overall guidance of the Deputy Commissioners who head the District DM Committees.
2. Control Room-cum- Information Centre known as Emergency Operation Centers to be setup in the District Deputy Commissioners' offices to react immediately to any part of district provided centre. These EOCs are being equipped with IT equipment, Disaster Management Information System (relevant data like Road, Approach Road, GIS based web server, contact no. of nearest hospital, police zone etc), Information Collection and Dissemination
3. Prepare On-Site emergency plans of all the hazardous units and Off-Site emergency plans in the Major Accident Hazardous factories in the RupNagar district. Same supposed to be done for major flood affected regions of RupNagar district.
4. Awareness is created through Talk Shows, Seminars, Posters & Stickers, Essay Competitions, Painting Competition, TV spots & ads, handouts, hoardings and above all Mock Drills.
5. First Aid training is imparted to DMT volunteers at village level, block level and district level.

6. Search & Rescue training to DMT volunteers at village level, block level and district level.
7. Training in School Safety Plan and Evacuation Drill.
8. Communication Plan is drawn up through inter-departmental radio network with the District Police Radio Organization as the nodal department. Communication will also be linked up with State Wide Area Network (SWAN) if available.
9. Rescue/Relief equipments are to be at the District level and uploaded in the National Website under India Disaster Resource Network so that the whole country can share with each other.
10. Form units of Rapid Response Teams from RupNagar Police Battalions. These teams will be trained as Collapse Structure Search & Rescue and First Medical Response.
11. Establishment of Emergency operation centre to react immediately to any part of district provided centre.
12. Train collision, fire broking out in Public buildings/ Industries, Hazardous/ toxic chemical leakage through air or water
13. Only one emergency phone no. (help line) for any natural or man induce disaster and web- page giving all crucial spatial in formation regarding disaster and their prevention with its link in concerned department for example www.pbirrigation.gov.in, NIC and others.

Mitigation Plan and suggestions mentioned below is focused on two major disaster that district is facing or could be faced i.e. Industrial Hazard and Flood Hazard.

5.5.1 Industrial Hazard

Identifying most polluting and hazardous chemical using industries and demarcating hazardous zone of industrial areas and other susceptible areas and their distance from nearest Fire station and medical centre/ hospital. Alarm button which not only alert the zone near it but also whole city functionary administrative departments/ agencies/ in case of worst case Industrial hazard scenario so that Bhopal Gas like tragedy can't repeated. Industrial Hazard trainng program to team/ official concerned. Pre trained Team / Volunteer to react first in case industrial fire or hazard case as they know where to react and what to do first. Enough Fire extinguishing equipments with certain demo training with medical centre and Fire stations Provision of regular check / surveillance of toxic/ chemical container, pipes, chimney with strict and mandatory efficient obligations to be followed.

GIS Approach- assessment of the vulnerability of hazardous Industrial zone with help of ALOHA software and ground non spatial data.

5.5.2 Flood Hazard

Identifying and demarcating hazardous zone for recurring flood with field verification, rainfall data and Geomatic techniques. Monitoring of flood controls and proposing remedial for flood affected region and drainage system. Requirement of ground level flood protection work against flood to decrease vulnerability to flood incoptad with Geomorphological studies and Scientific based damage assessment.

Requirement of ground level flood protection work against flood to decrease vulnerability to flood. Analysing and evaluate various flood control measures like drainage improvement ; diversion of flood water (spill channel); Catchment area treatment; alignment, location, design and provision of waterway etc. Here Irrigation Department coordination and planning is needed. To develop Decision Support System for Flood Management and early warning system Capacity building for preparedness and awareness for the floods after – effects situation Capacity Building with special stress on support and coordination of Administration, medical centre, academic centres, NGO, security and rescue forces.

- through GIS approach-

Identification of flood risk zone and consequently identifying Shelter Area and proposing or identifying nearest approach road against flooded settlement for emergency relief operation.. Change detection study of the river course and identification of chronic flood prone areas with other geographical features- buffer based GIS analysis ; Preparation of maps and list of flood affected villages with blockwise, tehsil wise showing percentage of village flooded area compared with total village area within 24 hrs. as real time flood dataset (RADARSAT 2/ AWIFS -Imaginary data) provided from NRSC, Hyderabad. Probability of major region having recurring flood inundation through generation of Flood Hazard Zonation Map of RupNagar District.

CHAPTER 6
DISASTER PREPAREDNESS

6.1 General Preparedness Checklist

1. Deputy Commissioner, RupNagar shall ensure that preparedness checklist is duly followed by each front line department and status of the same is discussed in monthly meetings.
2. Head of department of each frontline department shall ensure that the departments are prepared to meet the challenges of any emergency/ disaster by duly following the preparedness checklists.
3. Nodal officers of each of the frontline departments shall ensure quarterly Updation of District Disaster Management Resource Inventory and submission of the same to District

Emergency operation centre, RupNagar by:

- a) Adding to it any changes in the human resources of their department along with their updated contact numbers, if any.
 - b) Adding to the equipment list, relevant resources for response activities from both the government and private sector.
4. ADC (G) shall ensure that the same has been updated and uploaded on website of District Administration on quarterly basis with the help of District Information Officer (DIO) and DEOC.
 5. Nodal officers of each of the frontline departments shall also report to Head of Department and/or Deputy Commissioner, RupNagar about requisition of any relevant
 6. resource/equipment, not available with the Government and/or private sector, for disaster management activity.

District Disaster Management Authority (DDMA), RupNagar shall ensure the establishment of Emergency Operation Centre, RupNagar with the following:

- a) Proper space for Planning and Logistics Section Chief and staff.
- b) Proper space for control room with adequate communication equipments including landline telephones, mobile phones, satellite phones, walkie-talkie, ham radio, computer/ laptop with printer facility, email facility, fax machine, television, etc.
- c) Ensure power backup facilities along with availability of generator set.
- d) Ensure proper space for meeting, conference, media briefing along with LCD, computer and video conferencing facilities.
- e) Availability of District Disaster Management Resource Inventory, RupNagar and also of the neighbouring districts, Disaster Management Resource Inventory of the state and also of critical national resources.
- f) Availability of Hazard Seasonality Map of RupNagar district.
- g) Availability of District Disaster Management Plan, RupNagar

6.2 Department wise Preparedness Checklist

6.2.1 District Administration

1. Ensure enforcement of the codes, bylaws and act such as National Building Code, Bureau of Indian Standards, etc in the upcoming development projects, construction work, and commercial complexes.

6.2.2 Agriculture Department

1. Prepare Agriculture Contingency Plan.
2. Constitute a Crop Weather Watch Group at district level (as per 'A Model Manual for Drought Management', GoI) with representatives from Meteorological Department and concerned officers dealing with agricultural inputs, credit extension, etc to keep a close watch on the monsoon situation, extreme temperature, hail and wind storm.
3. Identify vulnerable areas prone to pest infestation, drought, flood and other hazards.
4. Ensure awareness generation in farmers regarding various plant diseases, alternate cropping practices in disaster-prone areas, crop insurance, provision of credit facilities, proper storage of seeds, etc.
5. Provide training to farmers in alternate cropping techniques, mixed cropping and other agricultural practices which minimise crop losses during future disasters.
6. Ensure surveillance for pest infestation and crop diseases.
7. Ensure availability of stock for immediate replacement of broken/non-functioning gadgets/equipments.
8. Ensure availability of adequate stock of seeds and other agro inputs particularly for areas vulnerable to hazards.
9. Prepare trained and equipped team for assessment of damage to soil, crop, plantation, irrigation systems, drainage, embankment, other water bodies and storage facilities that might impact agricultural activities.
10. Prepare for establishment of public information booths, with appropriate and modern means of communication, to assist farmers in providing information regarding insurance, compensation, repair of agro equipments and restoring of agricultural activities at the earliest.

6.2.3 Animal Husbandry

1. Ensure fully functional mobile veterinary unit at disposal.
2. Prepare a database of veterinary hospitals/ clinics and agencies working for animal care.
3. Ensure availability of stocks of mineral and feed supplements, life saving drugs, electrolytes, vaccines, etc.

4. Ensure sensitization of farmers about protection of their feed and fodder prior to the onset of monsoon.
5. Ensure filling feed banks before the scarcity period
6. Prepare for the feed of the poultry birds for drought situation.
7. Locate feed and fodder banks in view of submergence situation during the monsoon.
8. Identify source for procurement of fodder
9. Identify safe locations for fodder depot and cattle camps within the district.
10. Ensure assured source of water or canals for drinking and growing fodder along with the above locations.
11. Prepare for necessary arrangements of *tatties*, gunny bags and tarpaulin sheets to cover the sheds during heat and cold waves.
12. Ensure availability of sprinklers/ foggers in shed/camp during heat waves period.
13. Prepare for special care for productive, lactating and pregnant animals; also supplement them with additional concentrates and fodder.
14. Ensure proper administration of de-worming and vaccinations for cattle, sheep and goats, pigs and other relevant measures for disease management during any disaster situation.
15. Prepare for arrangements for transportation of critically injured livestock.
16. Identify space for burial of animals and ensure proper disposal of dead animals.

6.2.4 Bharat Sanchar Nigam Limited

1. Procure recovery plans from private communication service providers for their recovery time objectives.

6.2.5 Civil Aviation

1. Identify safe locations that can be used as helipads.

6.2.6 Development and Panchayat

1. Prepare mechanism for proper solid waste management, disposal of waste and removal of debris in shelter and relief camps, feeding centres and affected rural areas.
2. Prepare for sanitation operations in view of post flood situations.
3. Ensure availability of tractor trolleys and other required equipments for the same.
4. Plan to provide building/guest house/*dharamshalas* at different locations to establish control room, first aid and medical post or shelters during emergency.

6.2.7 District Red Cross Society

1. Ensure availability of fund for relief materials/ work.
2. Train and prepare ward and village wise first aid teams.
3. Prepare database of blood donors in the district and update the same in DDMRI.
4. Prepare database of trainers & volunteers and update the same in DDMRI.

5. Prepare a database of voluntary organizations and service they offer, ensure their authenticity, and update the same in DDMRI.
6. Ensure availability of adequate stock of food items, blankets, clothing including woollens, utensils, first aid kits, stretchers, medicines, etc in view of any emergency situation.
7. Ensure availability of adequate stock of aids (hearing, visual, crutches, artificial limbs, etc) for physically challenged persons.
8. Ensure availability of old blankets/ gunny bags for animal during cold wave period.

6.2.8 Education Department

1. Organise awareness generation programs in schools and colleges for students, teachers, administrative staff and other helpers. These programs should focus on dos and don'ts for various hazards and safe evacuation in case of any emergency.
2. Conduct hygiene promotion activities as per direction issued by the Health Department on a regular basis.
3. Ensure preparation of first aid and disaster management kit in each school and college.
4. Ensure preparation of school and colleges disaster management plan.
5. Identify safe schools and colleges to serve as relief shelter in case of any emergency within that area, only for short period of time.

6.2.9 Electricity Department

1. Ensure transmission map at disposal.
2. Prepare a database of critical and lifesaving infrastructure in the district and prepare for providing uninterrupted power supply to them.
3. Prepare for providing continuous power supply to the affected area.
4. Prepare to provide electrical connections and system at short notice in affected areas for purpose of pumping flood water and illumination of the area.
5. Prepare for prompt replacement/ re-commissioning of affected power supply system.
6. Ensure availability of adequate stock of important equipments like transformers, poles, conductors, cables, insulators, etc for prompt action whenever required.
7. Ensure trained construction and maintenance staff at disposal.

6.2.10 Fire Services

1. Ensure proper functioning of all equipments.
2. Make a database of existing fire fighting services and facilities provided with private agencies
3. Be aware of MAH units and other potential hazardous installations and level of possible emergency required.
4. Prepare to deal with leakage of flammable toxic substances.

5. Ensure, at disposal, the list of adverse affects of chemicals and antidotes/ methods to deal with emergency involving each chemical. This is prepared by Department of Industrial Safety and Health.
6. Review the adequacy of existing fire prevention arrangements in each MAH and other hazardous units before and after the installations. Share the report with Department of Industrial Safety and Health.
7. Identify roads and routes of access and escape to and from MAH and other potential hazardous units.

6.2.11 Food & Supplies Department

1. Prepare a database of godowns and cold storage facilities in the district.
2. Prepare a database of catering services providers.
3. Prepare for safety of stored food grains in godowns against inundation and water logging, fire and other possible hazards.
4. Prepare for out-movement of food grains to a pre-decided safer location, if required.
5. Ensure availability of adequate food grains storage in godowns in view of the scarcity or emergency period.
6. Prepare a database of kerosene depots, petrol pumps, gas agencies, etc and update the same in DDMRI.
7. Ensure availability of adequate stock of gas cylinders, kerosene, etc.
8. Prepare database of private retailers and wholesalers of edible food items.
9. Prepare a database of providers of refrigerated vehicles for transportation of perishable food items.
10. Prepare for large scale movement of food grains, their transportation, expeditious unloading, proper storage and prompt distribution through fair price shops, if required.
11. Prepare a database of private providers of tents, tarpaulin sheets, poles, *kanats*, cooking utensils, polythene bags, shrouds and other essential items that could be used for community kitchen and cremation and burial.

6.2.12 Forest Department

1. Ensure proper functioning of all equipments and vehicles.
2. Prepare a database of aara machine holders, carpenters.
3. Prepare team for catching wild animals to prevent infiltration in habituated areas, relief camps, etc.

6.2.13 Roadways

1. Ensure proper functioning of filling station, vehicles and equipments including fire extinguishers, first aid kits, etc.
2. Prepare for prompt deployment of vehicles at short notice for various purposes like mass evacuation, transportation of response teams, relief items, victims, etc.
3. Prepare mechanical team for prompt repair of equipment and vehicles.

4. Train drivers and conductors in first aid and basic life saving techniques.
5. Identify the vehicle for rescue operations.
6. Be well familiar with routes of potential hazardous installations and follow incident traffic plan.

6.2.14 Health Department

1. Prepare trained team of paramedics.
2. Develop dos and don'ts and IEC materials regarding health and hygiene.
3. Organise awareness camps with help of CHC/ PHCs and Development and Panchayat Department for hygiene promotion and public health issues.
4. Ensure availability of trained mobile medical teams at disposal.
5. Prepare psychological and psychosocial care teams.
6. Ensure availability of generator sets and buffer stock of fuel at disposal.
7. Ensure availability of adequate supply of life saving equipments and stock of medicines, portable supplies including portable oxygen cylinders, portable X – ray machine, portable ultrasound machines, triage tags, etc.
8. Ensure availability of adequate space with suitable facilities for storage of medicines.
9. Prepare a database of private hospitals and nursing homes with services and facilities available.
10. Prepare a database of doctors registered with Indian Medical Association (IMA).
11. Prepare a database of available ambulance services from government, private agencies and District Red Cross Society, if any.
12. Ensure, at disposal, list of MAH units and hazardous chemicals stored in them.
13. Ensure, at disposal, the list of antidotes for various hazardous chemicals. This list is prepared by Department of Industrial Safety and Health.
14. Ensure availability of adequate supply of blood units.
15. Prepare database of blood donors in the district and update the same in DDMRI.
16. Prepare a database of providers of refrigerated vehicles for transportation of vaccines, blood, blood products, etc.
17. Train drivers and attendants of ambulance and mobile medical units in first aid and basic life saving techniques.
18. Prepare a decontamination ward in view of any possible chemical or industrial hazard.
19. Prepare for prompt establishment of temporary hospital, mobile surgical unit, etc at short notice, near the affected area.
20. Ensure proper and safe mechanism for medical waste disposal.
21. Prepare for proper disease surveillance system.
22. Make proper arrangement and mechanism for mass casualty management.

6.2.15 Home Guards

1. Ensure proper functioning of all equipments.
2. Prepare teams trained in search and rescue, first aid, fire fighting, etc.

3. Prepare a database of volunteers and equipments and update the same in DDMRI.

6.2.16 Industrial Safety & Health

1. Prepare offsite emergency plan.
2. Prepare a database of MAH units and their contact details.
3. Enlist methods of packaging and handling, safe transportation, disposal, containment and precautions for all the hazardous materials present in district.
4. Inspect premises and machinery in plants, industries for adequacy of safety and emergency arrangements in industries and direct for corrective measures, if necessary, with respect to statutory provisions for safety.
5. Direct the management of industries and units to prepare on-site emergency plan of their units.

6.2.17 Irrigation Department

1. Ensure proper early warning mechanism in place for flood by monitoring water level of surface water bodies.
2. Ensure proper and timely inspection of conditions of bunds, siphons, regulators, embankments, etc.
3. Ensure timely de-silting and dredging of rivers and canals, if required.
4. Ensure prompt repair of channels, if required.
5. Ensure proper functioning of all equipments including dewatering pumps.

6.2.18 Municipal Corporation

1. Prepare for sanitation operations in view of post flood situations within jurisdiction of the area.
2. Ensure availability of tractor trolleys and other required equipments for the same.
3. Prepare mechanism for proper solid waste management, disposal of waste and removal of debris in shelter and relief camps, feeding centres and affected areas in their jurisdiction.
4. Plan to provide building/ guest house at different locations to establish control room, first aid and medical post or shelters during emergency in coordination with HUDA.

6.2.19 Police Department

1. Ensure proper functioning of all equipments.
2. Ensure proper mechanism in place for early warning of different hazards through police stations and police posts.
3. Arrange for public address system and siren.
4. Prepare for temporary installation of wireless systems between district and subdivisions in case of any damage to existing wireless system with the department.

5. Train the communication wing of police in setting up control room at short notice at a required site.
6. Prepare Crisis Management Plan for response to bomb blast, riots, terrorist attack and other law and order emergencies.
7. Prepare deployment plan of home guards and other volunteers for protection of property of affected community.
8. Prepare for proper arrangement for custody of recovered belongings and property from dead bodies and affected sites.
9. Train police personnel and staff of PCR vans in first aid and basic life saving techniques.
10. Prepare for proper protection to women, girls and children to avoid cases of human trafficking.
11. Prepare for protection of dead bodies to avoid their theft and false claims.
12. Prepare for safety and security of food and other commodities.
13. Prepare for protection against hoarding, black marketing of relief material.
14. Prepare for safety and security arrangements for evacuated area, affected area, transit camps, relief camps, hospital, medical centre, cattle camps and feeding centres.
15. Ensure traffic plan of Police at disposal.

6.2.20 Pollution Control Board

1. Prepare a database of hazardous chemicals and pollutants in the districts and their probable adverse effects on environment
2. Prepare for methods and techniques of decontamination of the same.

6.2.21 Public Health Engineering Department

1. Ensure availability and well functioning of all equipments and vehicles.
2. Prepare for distribution of water purifying tablets, bleaching powder and chlorination of public water resources, if required.
3. Prepare for arrangement of safe drinking water supply for surviving community in the affected areas and also in relief camps and shelters. Also prepare for provisioning of water for other purposes.
4. Prepare a database of suppliers and distributors of packaged drinking water.
5. Prepare for prompt repair of pipelines supplying potable water.
6. Prepare for prompt repair of sewerage systems and water works.
7. Make standby arrangements of generators for running the water pumps.
8. Ensure cleaning of drains before the monsoon season.
9. Ensure installations of tube wells, if needed, before the monsoon to provide underground water to the livestock during flood period.
10. Ensure availability of adequate number of water tankers, drums, jerry cans or identify their private suppliers to prepare for supply of water, in scarcity period and in emergency.
11. Ensure availability of water supply/ filling points for fire tenders, water cannons,

hospitals and other necessary life saving infrastructure.

12. Prepare for prompt provision of temporary toilets/ trench latrines in the affected area and relief camps.
13. Ensuring filling of water ponds/ lakes in the district with canal water/ tube wells prior to the onset of summer.
14. Prepare for the arrangements of clean drinking water for affected livestock and poultry.
15. Prepare mechanism for proper solid waste management and disposal of waste in shelter and relief camps, feeding centres and affected villages.

6.2.22 Public Relations Department

1. Prepare for proper public address system ensuring rumour control.
2. Prepare for media management.
3. Ensure database of dos and don'ts of all possible hazards in the district.
4. Ensure distribution of IEC material to community for awareness generation about the same.
5. Publicise the information in the interest of public awareness through booklets, pamphlets, radio, television, film shows, newspapers, documentary films, door to door campaign, meetings, etc.

6.2.23 Public Works Department

1. Ensure availability and functioning of all equipments like cranes, JCB, etc.
2. Prepare a data base of availability of heavy equipments like cranes, JCB with private agencies also.
3. Ensure, at disposal, the list of MAH units and other vulnerable buildings.
4. Prepare for prompt clearance of debris.
5. Prepare the demolishing squad for prompt demolition of unsafe buildings.
6. Prepare for prompt clearing and repairing of damaged roads, culverts, bridges and flyovers.
7. Prepare for construction of new temporary roads at short notice for diverting traffic from the affected area.
8. Prepare for construction of temporary facilities like that of medical post, temporary shelters, temporary toilets, etc at short notice.
9. Prepare for prompt establishment of helipad near the affected site for VVIP visits.
10. Prepare for restoration of government buildings damaged during disaster.

6.2.24 Regional Transport Authority

1. Make a database of private vehicles available with schools, colleges and other private agencies.

6.2.25 Revenue and Disaster Management Department

1. Ensure regular monitoring of rain gauge and regular updation of database for distribution and variation in rainfall.

2. Ensure proper mechanism in place for early warning of different hazards to village level through tehsildars, patwaris, DDPO.
3. Prepare Flood Control Order by 31st May of each year.
4. Ensure proper functioning of District Emergency Operation Centre/Flood Control Room during monsoon period and otherwise, if required.
5. Identify villages vulnerable to flood and drought.
6. Prepare a database of critical and lifesaving infrastructure in the district.
7. Prepare a database of safe locations for evacuation.
8. Identify possible safe sites for temporary shelters and relief camps.
9. Ensure availability of fully functional boats, life jackets and oars in view of flood condition of the district.
10. Prepare a database of voluntary organizations and service they offer. Ensure the authenticity of the same.
11. Identify competent persons/experts from various required fields for carrying out damage and need assessment post disaster.
12. Prepare proper mechanism for disbursement of compensation to victims or families of deceased.
13. Prepare a database of safe locations for relief distribution site for mass care and housing.
14. Identify site for temporary burial.

CHAPTER 7

Capacity Building & Training

As per the National Disaster Management Act (2005), capacity-building includes:

- i. Identification of existing resources and resources to be acquired or created;
- ii. Acquiring or creating resources identified under sub-clause (i);
- iii. Organization and training of personnel and coordination of such training for effective management of disasters.

The primary purpose of capacity-building in disaster management is to reduce risk and make communities safer. This can be done by increasing resilience and enhancing coping capacities. Effective capacity building at the district level requires the active participation of all those tasked with it. It must therefore include maintaining a comprehensive and up-to-date Disaster Management Resource Inventory, awareness generation, education, Research and Development (R&D) and systematic and systematized training. The Deputy Commissioner should ensure the following capacity-building activities of the entire district, and the various Heads of Departments should ensure capacity building of their respective departments. Furthermore, the Nodal Officers should, in coordination with the HODs, procure relevant equipment for disaster management activities.

7.1. Institutional Capacity-building

Institutional capacity-building will be structured upon a level-system that will be designed to bring officials and professionals from multiple fields and skill-sets at the district level. The District Disaster Management Authority (DDMA) will utilise the abilities and expertise of representatives from following areas, structured in the form of levels on the basis of priority.

7.1.1. Level-1 Capacity-Building

A. Centre for Disaster Management, MGSIPA

The Centre for Disaster Management (CDM), MGSIPA holds responsibility at the State level for conducting training programs on Disaster Management in all the districts of state. The trainings take place over three to five days and involve district officials from various departments, as per the specificities of the training being conducted. Trainings are conducted in the Institute as well as within the districts, for which officials are nominated by the District Administration. It is incumbent upon these officials to attend the trainings for which they have been nominated, and upon completion of the program, they shall receive certification from MGSIPA. The officials in charge of updating the DDMP are also responsible for keeping track of all trainings conducted and at the time of updating the plan, they are to include the names and contact details of all officials from RupNagar district who have attended any Disaster Management related training in the past six-months. This will ensure the availability of trained human resources capable of dealing with disasters at the district level.

B. DDMA / HODs

The role of District Level Officials in terms of capacity-building and training is primarily that of the District Disaster Management Authority (DDMA). The Authority will ensure that

participants from various departments are nominated for the various disaster management-related trainings conducted by CDM, MGSIPA and any other body/authority that is competent to conduct/organise trainings in the field of disaster management. The role of the DDMA will, thus, be predominantly that of coordination and monitoring. Furthermore, capacity-building at the institutional level should be done by carrying out various activities. The DDMA will also be responsible for ensuring that the Heads of Department (HODs) of the following departments discharge their responsibility of nominating officials from their departments for various disaster management trainings pertaining to their specific areas of work.

Agriculture Department

The HOD must ensure:

1. Formation and training of a Weather Watch Group for the purpose of monitoring crops in the district.
2. Putting in place disaster management protocols for the hazards of drought, flood, hailstorm, etc
3. Provision of training to farmers in alternate cropping techniques and mixed cropping.
4. Formation of Rapid Damage Assessment Teams who will be capable of assessing the condition of soil, fields, irrigation systems and any other damage to crops in postdisaster situations.

Animal Husbandry

The HOD must ensure:

1. Formation of Rapid Damage Assessment teams capable of examining and assessing damage caused to livestock, feed and fodder, and other things within the domain of animal husbandry.

Home Guards

The HOD must ensure:

1. Provision of trainings for volunteers, in Search and Rescue (SAR), First Aid, Traffic
2. Management, Dead Body Management, Evacuation, Shelter and Camp Management, Mass Care and Crowd Management.
3. The purchase of SAR equipment through the appropriate channels of the District Administration.

District Red Cross Society

The HOD must ensure:

1. Provision of training for the preparation of ward-level and village level First Aid teams.
2. Ensure organisation of blood donation camps on a regular basis during normal times.
3. Organise drives to recruit volunteers to help with blood donation camps and other activities.

Education Department

The HOD must ensure:

1. Formation and training of damage and need assessment teams within the department.
2. Provision of trainings in First Aid and basic survival skills for teachers and students in the district.
3. Education and awareness programs should be designed in such a way as to include the disaster management education in the school / college curriculum.
4. Capacity-building at the institutional level should be done by carrying out various activities under the School Safety Programme (SSP).

Electricity Department

The HOD must ensure:

1. The timely purchase of electric equipment necessary for maintaining a state of adequate preparedness and for speedy and efficient disaster response, through the appropriate channels of the District Administration.

Forest Department

The HOD must ensure:

1. Formation and training of teams within the department, for catching wild/escaped animals that pose a threat to human safety.

Punjab Roadways/ PEPSU/ Punbus

The HOD must ensure:

1. Provision of training to drivers, conductors and staff in First Aid and basic life saving techniques
2. Adequate stocking/replenishing of First Aid kits and maintenance of fire extinguishers in all vehicles and depots in the district.

Health Department

The HOD must ensure:

1. Formation and training of damage and need assessment teams within the department.
2. Provision of trainings for preparing teams of paramedics, mobile medical teams, psychological first aid teams and psycho-social care teams.
3. Timely procurement/ purchase of portable equipment for field and hospital diagnosis triage, etc.
4. Provision of trainings for health attendants and ambulance staff in First Aid and lifesaving techniques.
5. Provision of training to members of local communities in health and hygiene practices.

6. Capacity-building at the institutional level should be done by carrying out various activities under the Hospital Emergency Preparedness Programme (HEPP).

Irrigation Department

The HOD must ensure:

1. Provision of trainings to all human resources with regard to early-warning for flood.
2. The timely purchase of early warning and communication equipment through appropriate channels of the District Administration.

Development and Panchayat Department

The HOD must ensure:

1. Provision of training for formation of teams to engage with the issues of hygiene and sanitation at the village level through the Gram Panchayats.

Police Department

The efforts of the police go a long way in helping avoid and/or control chaos at disaster sites. They also help prevent human trafficking which is increasingly common in the aftermath of disasters these days. A training module on Disaster Preparedness and Response for Punjab Police has been prepared by CDM, MGSIPA and will need to be modified from time to time as per the requirement of district. Other training programs on disaster management that are relevant to the role of the police force are conducted by CDM, MGSIPA from time to time, and the District Administration should ensure that police personnel are deputed for such trainings.

The trained police personnel should be placed on record within a district level database of persons trained in disaster management. Such trainings are thus an important aspect of capacity-building in the district. District police will also receive training specific to the role of the department from the Police Academy Punjab (PAP) in Jalandhar District.

Fire Services Department

Punjab Fire services operated by Municipal Corporations/ Municipal Councils. Fire Services in RupNagar district should be made responsible for conducting fire-safety trainings and capacity building for all district officials as well as for Education institutions, housing societies and etc. from time to time. District Fire Services should also be made responsible for conducting safety audits of various government and civilian buildings in order to check whether they are compliant with fire safety norms. Furthermore, the Fire Services should conduct mock-drills for fire-fighting and evacuation procedures from time to time, following a schedule stipulated by the District disaster Management Authority (DDMA). Training programs on disaster management that are relevant to the role of the Fire Services and the District Administration should ensure that fire personnel are deputed for such trainings. The trained Fire Services personnel should be placed on record within a

district-level database of persons trained in disaster management. Such trainings are thus an important aspect of capacity-building in the district.

7.1.2. Level-2 Capacity Building

a. Civil Engineers (structural capacity building)

There is strong evidence that appropriate engineering intervention can significantly reduce the risk of disasters. Civil engineers also play an important role in post-disaster conditions – in rescue operations, damage assessment and the retrofitting of structures. Civil engineers need to keep themselves updated about the latest research and developments in construction technology, advances in construction materials and analysis or design procedures. Civil engineers should also take support from other branches of engineering for the better planning, execution and functioning of their building and infrastructure projects. Trainings to Civil Engineers will be provided by CDM. Furthermore, at the district level, civil engineers will conduct training of masons for construction of earthquake-resistant structures. Such trainings will be facilitated by the DDMA.

b. Corporates, Professionals

The National Disaster Management Framework emphasizes on the “involvement of corporate sector in awareness generation and disaster preparedness and mitigation planning”. Keeping in mind the need to mainstream disaster management concerns at multiple levels of the corporate sector, the following steps should be taken into consideration:

1. Through Corporate Social Responsibility (CSR), Corporates can assist in development projects can thus help enhance the capacity at the district-level.
2. Conducting mock-drills at regular intervals to determine the efficacy of the DM plans.
3. Large-scale association with awareness generation initiatives aimed at building the knowledge, attitude and skills of the common people for a safer habitat.
4. To move away from relief centric approach to a pro-active assault on vulnerabilities through risk management measures and capacity building of industrial personnel through Business Continuity Planning (BCP), trainings and other measures.
5. Training of a core team of Structural Engineers for retrofitting of existing industrial infrastructure as per requirement.

7.2 Strengthening of District (EOC)

Emergency Operations Centre (EOC) contains important equipment and certain resources such as maps and communication equipment including landline telephones, mobile phones, satellite phones, walkie-talkie, ham radio, computer/ laptop with printer facility, email facility, fax machine, television, etc. In addition, it will also contain, LCD monitors, printers,

videoconferencing equipment, power sources and backups, copies of plans, etc. It is crucial to strengthen the district-level EOC. This can be done by ensuring regular training of all staff meant to be present in the EOC.

7.3 Capacity-building at the Community Level

Capacity-building at the community level includes awareness, sensitisation, orientation and developing skills of communities and community leaders. At the district-level, assistance will be provided by consolidating the know-how and practical training provided by NDRF, Civil Defence and NGO, District Red Cross and Self-Help Groups (SHGs) and disseminating it within the communities. Multiple responsibilities within the arena of capacity-building and training will be delegated to local authorities, PRIs and ULBs under the overall guidance of District authorities. It is also crucial to focus on imparting training, cultivating community awareness and ensuring skill development

among members of the community. Furthermore, capacity-building at the community level should be done on the Public Private Partnership (PPP) model. This can be done by ensuring identification of local resources and developing local infrastructure through PPP. Community-based Disaster Risk Reduction (CBDRR) and Village Contingency Planning (VCP) is also critical for capacity building at the community-level and will be managed by the concerned departments in the district.

7.4 Development of IEC Material

Addressing the specific requirements of vulnerable regions and the risk mitigation and preparedness needs of identified communities, various IEC material like list of do's and don'ts, posters, leaflets, banners, training modules and audio visual material must be prepared using capacity building funds of the state. The aim is to develop a large body of advocacy and awareness materials, especially in vernacular languages, targeting vulnerable groups such as women, children, elderly, Physical disables, and marginalized and excluded groups.

7.5 Sensitization/Awareness Campaigns

The District administration must reach out to the local residents and general public of the district with various level sensitization programmes. Sensitization programmes shall be conducted for **schools, hospitals, colleges, communities, policy makers and all other specific sectors**. Awareness on multi hazards and dos and don'ts to solve it are most import and basic for a human being to save him/herself. Disaster strikes everywhere everyone irrespective of land, caste, creed, color, people, and gender. The basic information shall be given in forms of booklets reading materials, audiovisual material etc. The broad objectives of such programmes shall be as follows:

1. To bring awareness about disasters among the inmates of all institutions and residents of all communities in district.
2. To pave way for strict enforcement of building rules in construction departments and contractors.
3. Preparation of Building Evacuation Plans and training the general public on base of IRS self defense thereby building capacities of school authorities and saving lives in the event of an Earthquake or Fire accidents or any other disaster.

4. To sensitize officers from the District Administration, Department of Education, Police, Health, Fire Service and all other parallel agencies.

Different methods and techniques shall be utilized to spread awareness on disaster in the district. Some sample techniques and methods are listed below:

- Public meetings / workshop/ seminar/ training.
- Wall painting in the communities.
- Distribution of posters/ leaflets and other Information Education and Communication
- (IEC) materials to students and local people.
- Observation of disaster risk management day/ week.
- Street plays, documentaries and films on disaster management subject.
- Use of electronic media, especially cable channels and print media.
- Quiz-painting competitions, special types of books, etc for students.
- Any other means the DDMA/ESFs feels apt and proper.

CHAPTER 8

Response and Relief Measures

8.1 Declaration of Disaster

Deputy Commissioner, RupNagar as the ex officio chairperson of DDMA, RupNagar is responsible for declaration of disaster and activation of response and relief activities. To do so, first priority is to determine whether the resources are sufficient or not. If the situation is beyond the coping capacity of community in the affected area then a disaster shall be declared.

Declaration can be on the basis of level of disasters (L0, L1, L2 and L3) in affected area as per the NDMA guidelines.

L0 denotes normal times which are expected to be utilized for close monitoring, documentation, prevention, mitigation and preparatory activities. This is the planning stage where plans at all levels from community to the State shall be put in place. Training on search and rescue, rehearsals, evaluation and inventory updation for response activities will be carried out during this time.

L1 specifies disasters that can be managed at the district level, however, the state and centre will remain in readiness to provide assistance if needed.

L2 specifies disaster situations that may require assistance and active participation of the state, and the mobilization of resources at the state level.

L3 disaster situations arise from large scale disasters where districts and the state may not have the capacity to respond adequately and require assistance from the central government for reinstating the state and district machinery.

8.2 Content of Declaration

1. Date and Time
2. Justification for declaring of disaster, specification of the event and level of disaster.
3. Delineation of the area (Representation by map)
4. Special orders associated with situation and reason justifying these orders
5. Declaration signed by Deputy Commissioner.

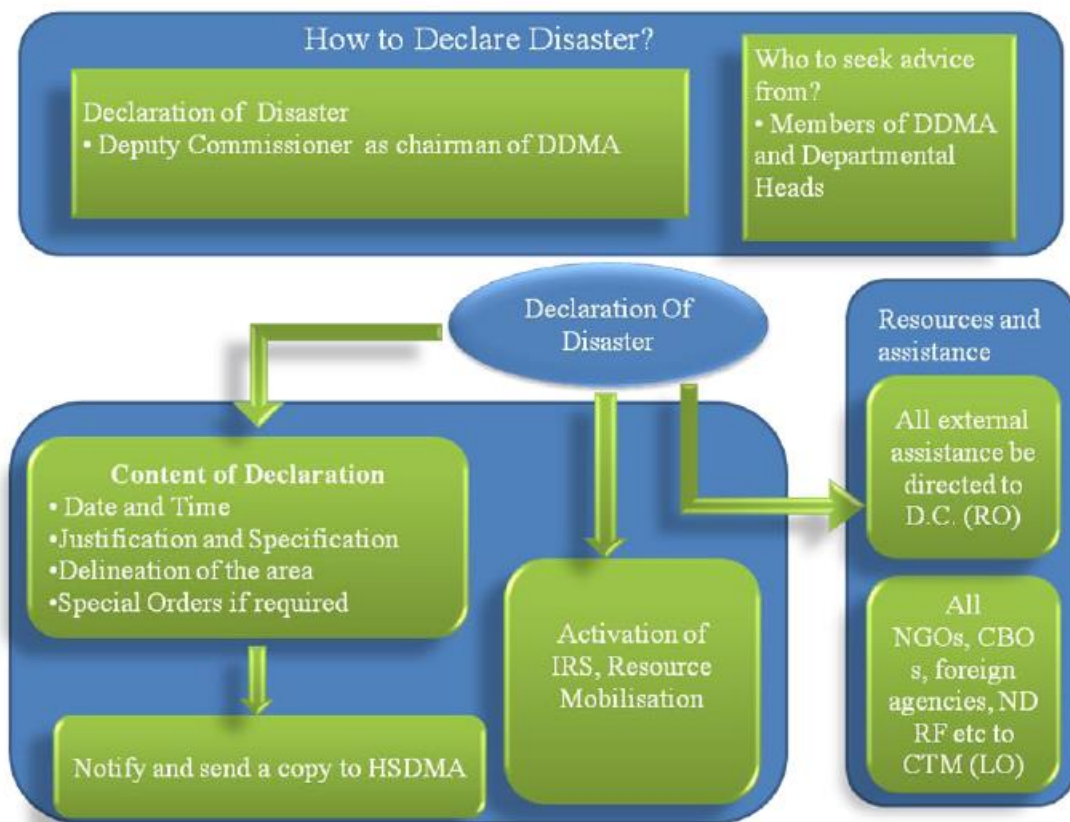


Figure 7.1 Declaration of Disaster

8.3 Implementation of DDMP

DDMA, RupNagar shall ensure implementation of District Disaster Management Plan for activation of IRS, roles and responsibilities, emergency support functions and DDMRI for resource mobilization.

(a) Incident Response System:-

What is Incident Response System (IRS)?

IRS is a mechanism which reduces aphorism in response through a well conceived team. It incorporates all the tasks that may need to be performed during the response. It identifies and pre-designates officers to perform various duties and get them trained in their roles. It is flexible system and only those Sections/Branches may be activated in the team which is required to meet the disaster situation.

The first part of RupNagar Response Plan functions through Incident Response Team (IRTs) in the field in line with our administration structure and IRS Guidelines (NDMA) Act 2005. Deputy Commissioner (DC) of RupNagar has been designated as Responsible Officer (RO) and overall in charge of the Incident Response Management. The DC may however delegate responsibilities to the Additional Deputy Commissioner (ADC) of RupNagar as IC, who in turn will manage the Incident through IRTs. The IRTs will be pre-designated from District to affected areas. On receipt of early warning, the RO will activate them. In case of a disaster occurs, without any warning, the local IRT will respond and contact RO for further support, if required. The RupNagar SDM has been designated for proper coordination between the District, State and National Level. In addition to his roles and responsibility as Liaison Officer, SDM will also activate air support, if required. A part from RO and SDM, Nodal officer (NO).

Response Plan has two main components:

Activation of IRS

On declaration of disaster, DDMA, Patiala shall activate IRS at district level. Deputy Commissioner, Patiala as responsible officer will activate various sections, branches, divisions, units and other facilities as and when required.

Establish and activate Incident Command post

The ICP is the location at which primary command functions are performed. IC will be located at ICP, and there would be only one ICP. This also applies to situations with multi agencies or multi- jurisdiction under unified command. ICP may be located at the headquarters. In case total destruction or lack of space it can be in a tent or a vehicle as well.

Establish Staging Area

Staging area is an area where mobilized resources are collected and accounted for field operations. These may include food, vehicles, equipments and other materials. It should be located at suitable site near the affected area for immediate, effective and quick deployment of resources.

Establish Incident Base

All primary services and support activities are usually located and perform at the incident base; the logistics section is preferable located here.

Coordination

There should be proper liaison and coordination amongst these stakeholders involved in the comprehensive disaster management for ensuring the implementation of the components involved in the DDMP. It is the responsibility of the CTM, Patiala to liaison with concerned line departments, agencies, NGO"s, INGO"s, CBO"s etc. And their representatives at various locations, keeping IC informed about arrivals of all the Government and Non Government agencies and their resources and organise briefing sessions of all Governmental and Non Governmental agencies with the IC. This coordination will involve facilitating response by addressing special needs of services like sign language interpreters or language translators for communication and other needs. CTM will also be responsible for management of all the VIPs and VVIPs visiting the affected area. CTM must coordinate with police to ensure their safety and security without affecting response and relief work.

Disaster Reporting

Importance of disaster reporting is an important aspect to maintain clear communication between different levels of administration. This helps people responsible to understand situation precisely and respond effectively and efficiently. This involves documentation of situation and photographs as well.

Rapid assessment report

Rapid damage and need assessment team will produce a report describing the magnitude of disaster with respect to life loss, property loss and other urgent needs of the affected areas. This assessment provides a base for planning response activities. This report should further be communicated to PSDMA.

Preliminary assessment report

This will give an account of disaster in first 24 hours. With some basic needs and damages.

Detail assessment report

This report highlights severity of disaster and provides detailed information on damage and needs of the affected area. It is prepared by damage and need assessment team and is based on reports from departments and specialists in health, irrigation, public health infrastructure etc. It gives a clear picture to district administration for proper resource mobilization and external help and forms the basis of relief and rehabilitation activities. It should be prepared within 72 hours of disaster and forwarded to PSDMA.

Interim Report

Based on earlier reports, interim reports provide additional and more precise information, and are to be submitted every 24 hours to DDMA. This time may vary depending upon the recipient and activities involved and this should be forwarded to PSDMA. As time goes by, the emphasis of interim reports will shift from the needs for relief to the needs for rehabilitation and reconstruction (e.g. Repairs to damaged structures, restoration of agriculture, animal husbandry, fisheries and industrial production). It is not necessary to repeat what has already been said in earlier reports unless the earlier details require updating. Interim reports should provide forecasts (with inputs from specialists and people who have experience of previous disasters) and highlight information which may not otherwise be obvious to the recipient's e.g. potential problems, changes, patterns, trends and indicators, essential component to vulnerable group etc.

Final Report:

A summary of Disaster Management of activities Lessons learnt.

Emergency Support function

Emergency support functions are essential services for prompt and well coordinated management of disaster. It is to be noted that Response branch director will be responsible for task assigned for their department

Emergency Support function will support following functions:

8.4 List of Emergency Support Functions

ESF No.	Emergency Support Functions	Purpose
1	Early Warning	Primary Purpose
2	Communication	To provide provisions for communications support before, during, and after an emergency/disaster situation. It will coordinate communications resources (equipment, services, and personnel) that may be available from a variety of sources (i.e., District/ state agencies, voluntary groups, country agencies, the telecommunications industries, armed forces) before or after the activation of the state Emergency Operations Centre.
3	Evacuation	To provide necessary information for administration and people to evacuate to safe places.
4	Damages and Need Assessment	To assess the extent of damage caused by a disaster. This assessment helps in planning and execution of relief and response activities. The needs assessment of the affected

		populations is a vital and continuous activity. Since the situation and needs changes, the assessments should be carries out regularly and results should be updated accordingly.
5	Fire Fighting	To provide life and property saving assistance to manage fire incidences following natural or man-made disasters.
6	HAZMAT	To provide state support to local governments in response to an actual or potential discharge or release of hazardous materials resulting from a natural, manmade or technological disaster and other environment protection issues. Also, it has to establish and coordinate the basic roles and responsibilities for oil & hazardous material.
7.	Search and Rescue	To provide life saving assistance from naturals as well as human caused events.
8	Health	To coordinate assistance in response to an all-hazards emergency or disaster events requiring a coordinated response, and/or during a developing potential health and medical emergency. Furthermore, it has to respond to medical needs associated with mental health, behavioral health, and substance abuse considerations of incident victims and response workers. And then it has to cover the medical needs of members of the “at risk” or “special needs” population (it includes a population whose members may have medical and other functional needs before, during, and after an incident.)
9	Dead Body Management	To indentify and maintain the record of the dead (Human beings) and facilitate in appropriate cremation/ burial, claim of compensation and belonging to reduce the psychological impacts on the family members.
10	Food and Supplies	To Provide food and other supplies to relief centers and affected areas.
11	Shelter and Camp Management	To provide requirements like food, clothing, shelter, water, basic amenities to the affected people in the relief camp and ensure safe, secured and healthy environment in culturally appropriate manner.
12	Mess Care and Housing	This ESF facilitates various services to be provided to the affected population until the recovery is achieved. These services cater to mess care needs beyond the scope of relief camps and shelters. Human services programs help disaster survivors recover their non-housing losses including replacement of destroyed personal property, and assist with obtaining disaster loans, flood supplies, crisis counseling, disaster unemployment and other central and state benefits.
13	Water, Sanitations and Hygiene (WASH)	To promote good personal and environmental hygiene in order to protect health. Effective WASH relies on identification of key hygiene problems and culturally appropriate solutions. Ensuring the optimal use of all water supply and sanitation facilities and practicing safe hygiene will result in the greatest impact on public health. Hygiene promotion is integral to WASH function and is reflected in the specific takes relating to water supply, excreta disposal, medical waste disposal, vector control, solid waste management and drainage.
14	Media Management	To disaster information about various hazards in the district, and the relevant dos and don'ts for before, during

		and after a disaster. This may be done through various media such as newspapers, television, radio, internet, media and information van, street theatre, etc. This ESF will also help in control of rumors and panic and for crowd management.
15	Law and Order	To provide safety and security to citizens and their property during disaster. To establish command and control in coordination with law enforcement personnel.
16	Public works	Provides technical assistance for damage assessment and repair and restore damaged public infrastructure.
17	Transport	To coordinate the use of transportation resources to support the needs of human, technical, equipment, facility, materials and supplies etc to the emergency responding department/agencies requiring transportation capacity to perform task of emergency response, recovery and assistance during an emergency/ disaster.
18	Livestock	To establishment procedures to coordinate local government agencies, volunteer organizations, allied animal interest groups, and veterinary medical personnel to provide their services to animals affected by any disaster with emergency medical care, temporary confinement, shelter, food and water, identification and tracking for return to owners and ultimate disposal of dead and unclaimed animals as necessary.

8.5 Relief

The norms of compensation for ex-gratia grant payable to persons affected by calamities like flood, drought, hailstorm, fire, lightning, and earthquake for loss of human life, for damage of crops, for loss of cattle, for loss of personal property by fire and damage to houses due to floods. Relief in district should be cultural sensitive and appropriately distributed. It should be noted that relief distribution should include all community and all parts of society, considering this district, special attention is necessary for population from scheduled caste, women, children and old age people during the process. It is the responsibility of each responsible department with district administration to see that their rights are not violated during the process.

8.6 ROLE OF ARMED FORCES, NDRF IN RESCUE AND SEARCH OPERATIONS

Disasters continue to strike unabated and without notice and are perceived to be on the increase in magnitude, complexity, frequency and economic impact. Disasters strike in varying intensities- some at will and some after due warning and time frame. Civil Administration is development oriented and at best can tackle low and moderate intensity emergencies depending upon the resources at their disposal and capabilities permitting. Civil police, although first agency to be informed, due to limiting numbers are rarely capable of surmounting the disaster.

From times immemorial, the Indian Armed Forces and Paramilitary forces have always done a commendable job, when called to aid civil authorities, especially in wake of natural disasters or man-made disasters. Although, the armed forces are called upon to intervene and take on specific tasks when the situation is beyond the capability of civil administration, in practice, they have been the core of government response capability

in case of major disaster .The Armed forces are trained to react in emergencies and work against time is built in their training schedule. Both the public and government repose tremendous faith in armed forces and believe that emergencies and crisis can be handled by the armed forces.

In the last decade, the country has witnessed frequent and intense natural disasters leading to large scale of destruction, death, disability, diseases ,panic and fear among people at risk among people at risk .The growing tendency over ensuring and not having faith in own civil setup to deal with emergencies ,has led to frequent deployment of armed forces sometimes, unjustified.

Over the years, there is a paradigm shift in government approach from response ,relief and rehabilitation to mitigation, prevention and preparedness. The government of India has enacted Disaster Management Act 2005 and set in motion a number of initiatives for concentrated efforts to manage disaster in holistic and integrated manner. The government has felt the capability for rapid professional force to disasters .In that matter, National Disaster Response Force (NDRF) has been constituted with advance training ,equipments, communication and mobility to respond to any type of natural or manmade disasters including nuclear, chemical and biological disasters .

The Government of India, considering the changing Geo-political scenario ,reducing the chances and occurrence of traditional wars and steadily increasing threats from natural and manmade threats has envisaged a greater role on the part of civil defense from merely hostile, act-centric responsibility to a hostile role in all the facets of disaster management in the country .The Civil Defense being a community based voluntary organization can, in addition to rescue ,relief and rehabilitation ,also play a stellar role in the field of community capacity building and public awareness to face any disaster situation, as is being done by Civil defense setups in many other countries. In addition to role assigned under Civil Defense 1968,the Civil Defense can play a major role in assisting District Disaster Management Authority(DDMA) with the help of volunteers at grass root level ,in different phases of disaster particularly in pre-disaster (public awareness, community capacity building and community preparedness) and mid-disaster phases(response and relief) phases.

The frequency and intensity of natural and manmade disasters have increased in recent years .Though the government paradigm shift from response and relief centric to preparedness, prevention and mitigation is in progress phase and yet to take its proper shape ,the changing role of various response agencies has to be reviewed and redefined and trained accordingly.The increasing propensity on the part of the civil administration to requisition armed forces and Para-military forces need to carry out re-appraisal of the role of armed forces especially in contingencies relating to disaster management .Sequential deployment of rescue and relief sources or a graduated response by various entities to emergencies is fraught with the dangers of delay and situation going beyond control.

Ideally, assessment of the response to disaster or impending disaster is needed. This will facilitate deployment of necessary resources i.e Civil Defense, National Disaster Response force, Paramilitary forces and Armed Forces ,without loss of time ,to limit the damage and losses to minimum.

8.7 Search & Rescue Team Work

NDRF BATHINDA

NAME & CONTACT NUMBER OF NDRF/ ARMY OFFICERS
WHO WILL BE ASSISTED DURING THE FLOOD

ARMY UNIT NAME	NAME OF OFFICER	DESIGNATION	MOBILE NO.
7 TH NDRF, BATHINDA	MR. RAVI KUMAR	COMMANDANT	9417802032
	NDRF CONTROL ROOM,BATHINDA	CONTROL ROOM	01642246570
8 SIKH REGIMENT	DHARMINDER SINGH	SUBEDAR (Sr. ADJIT)	9872019158
	MR. PARVINDER	NAIB SUBEDAAR	8427569590
KUMAON REGIMENT	COL. KASHYAP,	CO	8826006743
	MR. VIJAY KUMAR	SUBEDAAR	8556053790
	MR. SHER SINGH	SUBEDAAR	9876361945

8.7.1 LIST OF NGO (NON-GOVERNMENT ORGANISATION)

Sr No.	NGO Name	Name of Head/Secretary	Mobile Number
1	ROTARY CLUB, RUPNAGAR	SH. VIVEK CHANNA	99157-32190
2	LIONS CLUB, RUPNAGAR	SH RAJESH VASUDEVA	98151-94672
3	GURDWARA KALGIDHAR COMMITTEE, RUPNAGAR	SHRI MANINDERPAL SAHNI	94172-20454
4.	GURU GOBIND SINGH STUDY SANTHA RUPNAGAR	INDERPAL SINGH CHADDA	98888-66696
5	SAHEED BHAGAT SINGH YOUTH WELFARE, RUPNAGAR	SHRI NAVEEN DARDI	94634-54119
6	YOUTH CLUB TALMAEL COMMITTEE, RUPNAGAR	SHRI SHIV KUMAR	96460-41369
7	BHAI MANJH SEWA DAL , RUPNAGAR	SHRI DARSHAN SINGH	98556-01456
8	GURU GOBIND SINGH STUDY CIRCLE, RUPNAGAR	SHRI INDERPAL SINGH CHADDHA	98888-66696
9	SHRI TEJINDER PAL SINGH GOLDY,SOCIAL WORKER, ANANDPUR SAHIB		94638-22798
10	SHUBH KARMAN SOCIETY,GHANAULI, RUPNAGAR	SHRI JASBIR SINGH	98722-75479
11	NATIONAL YOUTH WELFARE CLUB, BAIRAMPUR, RUPNAGAR	SHRI GURSOHAN SINGH	95019-36063
12	TRIMURTHI CLUB, RUPNAGAR	SHRI ANIL GOLDY	98559-25232
13	BHARAT VIKAS PARISHAD, BATHINDA	SHRI D.S.DEOL	98149-21705
14	YOUTH WELFARE CLUB, DUGRI, RUPNAGAR	SHRI GURDEEP SINGH	94635-23568
15	YUVAK SEWAWA CLUB, VILLAGE BHANAM, TEHSIL NANGAL	SHRI SATWINDER SINGH	98762-31632
16	SAHEED-E-AZAM YOUTH WELFARE CLUB RUPNAGAR	SHRI KAMALJIT SINGH	98763-68779
17	SHRI HARBANS SINGH MEMORIAL 262 JAIL SINGH NAGAR,ROOPNGAR	SHRI KIRANPREET GILL	98142-85709
18	SHRI HARJIT SINGH ACHINT, MEMBER, RED CROSS, SOCIAL WORKER, ANANDPUR SAHIB		9814969271

19	FRIENDS CLUD RUPNAGAR	PRARAMJIT SINGH	92176-86403
20	INER WHEEL CLUD RUPNAGAR		98767-16306
21	SANKLAP SEWA SOCIETY, RUPNAGAR	SUKHDARSHAN SINGH	94171-94533
22	LIFE LINE BLOOD DONOR SOCIETY CHAMKAUR SAHIB	DIDAR SINGH	89689-43148
23	SHAHEED BHAGAT SINGH BLOOD SOCIETY RUPNAGAR	KAMALJIT SINGH	98763-68779
24	S.S. HARBANS SINGH MEMO SOCIETY RUPNAGAR	KIRAN PREET	94172-85709
25	NATIONAL YOUTH WELFARE CLUB BAHRAMPUR	GURMEET SINGH	81468-94793
26	SATSANG GHAR BEAS	RANJEET SINGH	98880-80730
27	SHIV KAWAD SANGH	JAI SHANKAR	90410-91681
28	SIKH SEVA SOCIETY	AMRINDER SINGH	87290-01006
29	PUBLIC WELFARE NGO, RUPNAGAR	MONIKA	74040-20791

8.7.2 LIST OF BOAT DRIVERS

**INFORMATION PROVIDED BY DISTRICT RAKHEYA SEWAWA WELFARE OFFICE,
RUPNAGAR**

RUPNAGAR

<u>NO</u>	<u>SOLDIER'S NAME AND ADDRESS</u>	<u>MOBILE NUMBER</u>
1	(NO.15566805M) SPR SUKHDEV SINGH VILL. MAGROR, DISTRICT RUPNAGAR)	84370-68539
2	(NO.1586329K) HAV ACP NB/SUB MAJOR SINGH H.N. 294A, W.NO. 1 SHAHID BAHGAT SINGH COLONY, DISTRICT RUPNAGAR	98761-78750
3	(NO.1589462X) HAV, DARSHAN SINGH VPI PURKHALI, TEHSIL CHAMKAUR SAHIB, DISTRICT ROPAR	73475-66353
4	(NO.15563976) SPR, HARWINDER SINGH VILL. SOLKHIAN DISTRICT RUPNAGAR	98771-87372
5	(NO.15575159) SPR LAKHVIR SINGH VPO BALAMGARH, MADWARA, DISTRICT RUPNAGAR	88475-36683

ANANDPUR SAHIB/NANGAL

<u>NO</u>	<u>EX SOLIDER'S NAME AND ADDRESS</u>	<u>TELEPHONE NUMBER</u>
1	(NO.14922902F) HAV, HARWINDER SINGH VPO TAKHATGARH, TEHSIL SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	82830-12847
2	(NO.15344844F) SPR, BALWINDER KUMAR VILL. SAINI MAJRA P.O. NURPUR BEDI, TEH. SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	97819-74271
3	(NO.155667908) SPR HARMAIL SINGH VPO ABIANA KALAN, TEHSIL SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	99144-37114
4.	(NO.15339511L) SPR BALBIR SINGH VPO KHERA KALMOT, TEHSIL SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	95309-96326
5.	(NO.1489914A) HAV PARMINDER SINGH VILL RAIPUR SANI, P.O KOTLA POWER HOUSE, TEHSIL SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	94644-81827
6.	(NO.15344849A) SPR RAMESH KUMAR VILL. LALPUR PO. BARWA, TEHSIL SRI ANANDPUR SAHIB, DISTRICT RUPNAGAR	98160-22540

CHAMKAUR SAHIB/MORINDA

<u>NO</u>	<u>EX SOLIDER'S NAME AND ADDRESS</u>	<u>TELEPHONE NUMBER</u>
1	(NO.15567905K) SPR LAKHJINDER SINGH, VPO CHAMKAUR SAHIB, DISTRICT RUPNAGAR	94650-10236

2.	(NO.15347486) SPR MANDEEP SINGH, VPO SAMANA KHURD, TEHSIL MORINDA, DISTRICT RUPNAGAR	97815-69635
----	--	-------------

F. DISTRICT DEVELOPMENT AND PANCHYAT OFFICER

NAME OF THE OFFICER SH,/ SMT.	PLACE OF POSTING	OFFICE TELE NO.	MOBILE NUMBER
BALJINDER SINGH GREWAL	DDPO	01881-221161	98145-65219
ISHAN CHAUDHARY	BDPO, RUPNAGAR	01881-220562	95920-99544
CHAND SINGH	BDPO, ANANDPUR SAHIB	01887-232107	90411-03578
HARKIRAT SINGH	BDPO, MORINDA	0160-2632048	94177-81063
MAJOR SINGH	BDPO, CHAMKAUR SAHIB	01881-260132	90411-03578
HARINDER KAUR	NURPUR BEDI	01887-240424	97806-58086

G. FOREST OFFICER

NAME OF THE OFFICER	DESIGNATION	CONTACT NUMBER
MR. GUR AMAN PREET SINGH	DISTRICT FOREST OFFIER, RUPNAGAR	90413-89291
MR. SATWINDER SINGH	FOREST OFFICER RANGE RUPNAGAR	94632-54024
MR. BALJINDER SINGH	FOREST OFFICER RANGE CHAMKAUR SAHIB.	99153-36897
MR. ANIL KUMAR	FOREST OFFICER RANGE NURPUR BEDI	88727-00560

8.8 Withdrawal of Declaration of Disaster

This would be about normalization and withdrawal of special orders which were given to bring situation under control.

Chapter -9

Reconstruction, Rehabilitation and Recovery Measures

The International Strategy for Disaster Reduction (ISDR) defines recovery as the “decisions and actions taken after a disaster with a view to restoring or improving the predisaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk”. The process demands co-ordinated focus on multi disciplinary aspects of reconstruction and rehabilitation for recovery and is essential to understand disaster reconstruction, rehabilitation under the holistic framework of post disaster recovery.

9.1 Post Disaster Reconstruction

Post disaster reconstruction includes both short term and long term activities. The short term activities refer to repair, restoration and strengthening of damaged structures, whereas long term reconstruction activities refer to reconstruction of multi-hazards resilient housing, relocation, provision of basic amenities etc. along with psychological, socioeconomic, environmental and agronomic rehabilitation. DDMA, RupNagar should initiate the reconstruction activities based on the details of damage assessment. Further, on the basis of extent and type of damage to buildings (public, private, government, etc.), district administration should initiate reconstruction measures.

9.2 Short Term Reconstruction Activities

I. Repair

The main purpose of repair is to bring back the architectural shape of buildings to resume their functioning at the earliest. The following actions can be taken for repair:

1. Patching up of defects such as cracks, fall of plaster, etc.
2. Repairing doors, windows, placement of glass panes.
3. Checking and repairing electric wiring.
4. Checking and repairing gas pipes, water pipes, sewerage and other plumbing services.
5. Repairing of broken walls, disturbed roofing tiles, cracked flooring and its redecoration with washing, painting etc. The architectural repairs as stated above do not restore the original structural strength of cracked walls or columns and may sometimes be very illusive.

Restoration

The main purpose of restoration is to carry out structural repair to load bearing elements. It may involve cutting portions of the elements and rebuilding them or simply adding more structural material so that the original strength is restored. Removal of portions of cracked masonry wall and piers and rebuilding them in richer mortars. Use of non-shrinking mortar is preferred. Addition of reinforcing mesh on both faces of the cracked walls holding it to the wall through spikes or bolts and covering it suitably. Several alternatives can be used. Injecting epoxy like material which is strong in

tension into the crack in the Walls, columns, beam etc. Where structural repairs are considered necessary, these should be carried out prior to or simultaneously with the architectural repairs so that total planning of work could be done in a coordinated manner and wastage is avoided.

Strengthening of Existing Buildings

Strengthening is an improvement over the original strength where the evaluation of the building indicates that the strength available before the damage was insufficient and restoration alone will not be adequate in resisting future impacts. Strengthening procedure should aim at one or more of the following objectives:

Increasing the lantern strength in one or both directions, by reinforcement or by increasing wall area or the number of wall and columns.

Giving unity to the structure by providing a proper connection between its resisting elements in such a way that inertia forces generated by the vibration of the building can be transmitted to the members that have the ability to resist them. Eliminating features that are sources of weakness or that produce concentrations of stresses in some members or cause abrupt changes of stiffness from one floor to the other concentration of the large masses.

For example, large opening in wall without a proper peripheral reinforce.

Avoiding the possibility of brittle modes of failure by proper reinforcement and connection of resisting members.

9.3 Long Term Reconstruction Activities

Reconstruction of housing and associated infrastructure plays most important role in betterment of psychological trauma, livelihood, health, education in entire disaster recovery process. Therefore, it should consist of a comprehensive approach involving rehabilitation of housing, infrastructure, livelihood, health, education, environment, etc to ensure sustainable development of disaster affected communities. It should be taken into consideration that below mentioned multi disciplinary activities and approaches should be incorporated in reconstruction process in consultation of the affected community in an institutionalised manner. This would ensure sustainable development of the community.

I) Design & Material

The reconstruction of housing requires appropriate design i.e. culturally acceptable, environmentally suitable and suitable to contextual needs of community. The material and technology used should also be context specific and in full consultation with the people so that they are able to maintain the housing after they occupy them. For the same, owner driven approach is preferred.

II) Disaster Resilient Construction

DDMA, RupNagar shall constitute a committee to meet the technical requirements for disaster resilient housing in reconstruction. This committee shall have members from PWD (B&R) department, Development and Panchayat Department and other member's best suited for ensuring disaster resilient housing. These members shall assist in multi hazard resilient design and monitor the entire process of reconstruction. The committee should

ensure that disaster resilient techniques are incorporated in various schemes and development projects. Therefore, funds under schemes can also be used for reconstruction Indira Awaas Yojana and other such as Housing Schemes for Scheduled Castes and Denotified Tribes.

III) Owner-Driven Approach

One of the significant approaches for disaster reconstruction is owner driven approach. This approach facilitates the owner to build the housing as per their own conveniences. The intervention of district administration is limited to provision of the funds and technical expertise for construction activity. This approach will facilitate the owners to design houses as per their needs, at preferable locations. This gives them a sense of ownership and helps them to maintain their social capital. The involvement of owner helps in reducing the cost and proper monitoring.

IV) Relocation

When reconstruction also involves relocation of the community, the relocation site should be in close proximity to the existing sources of livelihood such as places of work, agricultural farms, livestock facilities, markets, etc. This will ensure favourable conditions for livelihood generation and other economic activities. DDMA, RupNagar should plan and procure land for rehabilitation in consultation with the targeted community members to meet the above mentioned aspects.

9.4 Basic Amenities

DDMA shall ensure the provision of the following basic amenities at all reconstruction and relocation sites.

Health Facilities

DDMA shall constitute a committee to ensure for provision of health facilities at all reconstructing sites in the district. The committee shall co-ordinate with constructing agencies and departments (Private agencies, PWD (B&R), PUDA, Housing board, etc.) in association with Health department and ensure functioning of health facilities along with necessary infrastructure at strategic locations at all reconstruction sites. Schemes under health department such as NRHM should be used for the same

Educational Facilities

DDMA shall constitute a committee to ensure provision of educational facilities for all the reconstructing sites in the district. The committee shall co-ordinate with constructing agencies (PWD B&R, PUDA etc) in association with Education department for ensuring education for disaster affected children/ students in the district. Various departmental schemes such as balwari programme, creche programme, Children's library can be used for the same.

Water

DDMA shall constitute a committee to ensure provision of adequate water supply for all the reconstructing sites in the district. The committee should ensure potable water for drinking and water for other use is provided by PHED(Public Health Engineering Department) department through proper functional pipelines and other arrangements.

The committee shall co-ordinate with reconstruction agencies to ensure that each household/ constructed unit is provided with adequate water storage facilities.

Drainages and Sanitation Facilities

DDMA shall constitute a committee to ensure provision of proper drainage and sanitation facilities for all reconstruction sites in the district. The committee shall co-ordinate with PHED and constructing agencies (Private, PWD (B&R), PUDA, Housing Board, etc.) to ensure proper drainage system and other hygiene and sanitation activities in rehabilitation sites.

Electricity

DDMA shall constitute a committee to ensure provision of electricity and sufficient lighting facilities for all the reconstructing sites in the district. The committee shall coordinate with electricity department and MC to ensure provision of electricity and associated infrastructure in all the rehabilitated sites with permanent connections

Transportation and Connectivity Facilities

DDMA shall constitute a committee to ensure provision of proper road connectivity and transportation facilities for all the reconstructing sites in the district. The committee shall coordinate along with PWD (B&R) Department, Punjab roadways and RTA, RupNagar to ensure road connectivity and transportation facilities for the reconstruction sites.

9.5 Rehabilitation

Post-disaster rehabilitation is a complex process involving several dimensions such as livelihood restoration, psychological care, environmental rehabilitation, etc. This requires strong linkages between government, nongovernmental organisations as well as international organisations and should be seen as opportunity to work with communities in the district.

9.6 Socio-Economic Rehabilitation

DDMA shall constitute a committee to ensure revamping of economy for affected people in the district. This committee shall provide mechanisms and schemes for livelihood generation and support for livelihood. The committee shall have members from Development and Panchayat department, Dist. Social Welfare department, Welfare Department, District Red Cross Society, DCCW, and Health Department etc. Various measures such as seed capital, micro finance and other related schemes should be used for the same. Following are some of essential activities for different target groups. The committee shall ensure the execution of the same at every reconstruction and rehabilitation sites.

a. Livelihood Generation

The socio- economic rehabilitation committee shall further co-ordinate along with Department of Employment, District welfare department and NGO's to ensure financial arrangements such as loans and assistance for self employment. Other livelihood support

activities which can be provided by the schemes under Welfare Department are given below:

Training tailoring to SCs/BCs destitute/ widowed women/girls. Upgradation of typing and data entry skills of the SC/BC unemployed youth through computer training. Financial Assistance for training to Scheduled Castes candidates in unorganised sector through private institutions Creation of employment generation opportunities by setting up Employment oriented Institutions/ training programme. The socioeconomic rehabilitation committee shall also co-ordinate with Animal Husbandry and Dairying Department to ensure alternate livelihood generation activities by providing cows and buffaloes. Various schemes under Animal Husbandry and Dairying Department shall be used for the same:

Schemes for Employment Opportunities to Scheduled Castes families by establishing livestock units and insurances of their livestock (SCSP) Special Employment to educated/ uneducated young men/women of rural area through Dairy Development Self employment generation in dairy sector by establishing Hi-tech/ Mini dairy units Schemes for salvaging and rearing of the male buffalo calves.

b. Children

The socio- economic rehabilitation committee shall further co-ordinate along with DCCW department to install playschools, orphanages etc. at community level. Under the Balwadi Programme, pre-school education, routine health check-up, nutrition, play and other related activities are covered. DCCW, RupNagar should ensure that each and every child from affected community is benefitted from such schemes and programmes.

Financial Assistance under the Non-School Going Disabled Children and Destitute Children, ICDS, etc. could also be used.

c. Women

1. The socio- economic rehabilitation committee should co-ordinate along with Department of Social Welfare to ensure that each widow/destitute is registered under various schemes and measures to support livelihood.

2. The Widow and Destitute Women Pension Schemes and other such schemes under Welfare and Social Welfare Department can be used for the same.

3. Some of the relief and rehabilitation activities shall be targeted to address women of the household. This may involve women in relief and rehabilitation process.

d. Old Age

The socio- economic rehabilitation committee shall further coordinate along with Department of Social Welfare to ensure that each elderly/ old aged people is registered under Old Ages Pension Scheme and Samman

Allowance .The committee shall also coordinate with various NGO's to address various needs of the old age.

e. Physically Challenged

The socio- economic rehabilitation committee shall coordinate with Department of Social Welfare and District Red Cross Society to ensure that each physically challenged person is

provided with artificial limbs, hearing aids, wheel chairs, etc. Assistance should be given by Social Welfare Department under Handicapped Person Pension Scheme, Scholarship to Handicapped Students and Unemployment Allowance to Literate Handicapped Persons, etc.

f. Scheduled Castes and Backward Castes

The socio-economic rehabilitation committee shall co-ordinate along with Social Welfare Department for provision of support for livelihood to SCs and BCs. Various schemes such as Financial Assistance for Training, Tailoring to Scheduled Castes/ Backward Castes destitute/widowed women/girls, Indira Gandhi Priyadarshini Viwah Shagun Yojna and Housing Schemes for SCs, etc. have potential to support the targeted vulnerable sections.

9.7 Psychological Rehabilitation

DDMA shall constitute a psychological rehabilitation committee to ensure provision of psychological care and psychological first aid to the disaster affected community. The committee shall co-ordinate with Health Department, Women and Child Development, DCCW to carry out activities at community level to reduce the psychological trauma of the disaster affected communities. Support and coordination from NGOs should also be utilized for the same. Various programmes like Balbhavans, Play ground, Hobby classes under DCCW Department can be used to provide psychological care for the disaster affected children.

9.8 Agronomic Rehabilitation

DDMA shall constitute an agronomic Rehabilitation committee to ensure soil reclamation in case of any changes in composition and fertility of soil in the district. The committee shall co-ordinate with Department of Agriculture to ensure that Soil testing labs undertake research and formulate necessary steps required for agronomic rehabilitation. The committee shall co-ordinate with NGO's working in same fields and their support should also be channelized for the same. They should also suggest cropping patterns, suitable compositions of fertilizers pesticides etc. depending upon the changes in soil and develop a model of rehabilitation of the same

9.9 Environmental Rehabilitation

DDMA shall constitute an Environmental Rehabilitation committee to ensure decontamination of water bodies, soil, air and other environmental problems. The committee shall co-ordinate along with Punjab State Pollution Control Board, Industrial Safety and Health, Forest, Agriculture and Health department to monitor carry out decontamination. The committee shall monitor rehabilitation sites and take necessary steps to reduce pollution.

9.10 Restoration of Social Capital

DDMA shall constitute a Social Capital restoration committee to ensure intact social bonding of the people during distribution of houses. The committee shall co-ordinate with distributing agency to ensure that the social fabric is not weakened in the process of

allocation of houses. Families with better cooperation with each other should be allocated close to each other.

Coordination ensuring Holistic Recovery Process

DDMA should formulate necessary institutional mechanisms for ensuring that each above mentioned parameters/ activities of reconstruction and rehabilitation are provided at each site. DDMA should monitor and coordinate NGO/ INGO/ or any other agency depending upon their mandates and utilize their resources appropriately. It should be noted that the external agencies have a time bound approach and communities may or may not be completely rehabilitated before that time, therefore DDMA, RupNagar should ensure rehabilitation of such communities. Most essentially to avoid communities getting dependent on assistance, DDMA should design achievable indicators and ensure proper and timely withdrawal.

10.1 IMPORTANT TELEPHONE NUMBER

A. DISTRICT ADMINISTRATION

OFFICER NAME Shri/Smt/ Miss	DESIGNATION	OFFICE	MOBILE
MANVESH SINGH SIDHU, IAS	COMMISSIONER	221400 220400	99154-33666
SONALI GIRI, IAS	DC RUPNAGAR	221150 221250	98888-41777
AKHIL CHAUDHARY,IPS	SSP, RUPNAGAR	220119 220120	70874-22221
DEEPSHIKHA SHARMA, IAS	ADC(G)	221152	82849-46738
SANJEEV SHARMA	ADC(URBAN DEV.)	221152	78370-48773
DINEH VASHISHT	ADC(D)	221153	99159-01752
AMRIK SINGH SIDHU, PCS	AC (GENERAL)	221157	98760-62029
DEEPANKAR GARG, PCS	AC (GRIEVANCES)	221157	78886-58311
JASWANT SINGH, PRS	DRO	221154	99143-24495
BALJINDER SINGH GAEWAL	DDPO	221161	98145-65219
GURWINDER SINGH JOHAL PCS	SDM,RUPNAGAR	221155	98140-21021
KANU GARG, PCS	SDM, ANANDPUR SAHIB	232036	98787-20238
KANU GARG, PCS	SDM, NANGAL	226030	98787-20238
INDERPAL, PCS (ADDITIONAL CHARGE)	SDM, CHAMKAUR SAHIB	261600	95699-02204
JASVIR SINGH, PCS	SDM MORINDA	2632048	98728-83628

PARMINDER KUMAR	CIVIL SURGON, RUPNAGAR	221140	93564-66357
GUR AMAN PREET SINGH, IFS	DISTRICT FOREST OFFICER	222231	90413-89291
SATVIR SINGH	DISTRICT FOOD SUPPLY OFFICER	221160	94640-00039
SUKHWINDER SINGH KALSI	XEN. DRANGE DEPARTMENT	222210	97792-00269
GURSEWAK SINGH RAJPAL	GENERAL MANAGER PUNJAB ROADWAYS RUPNAGAR	221376	94173-15717
DR. RAJVIR SINGH KANG	AISS. DIR. VETERINARY OFFICER	222337	98720-30111
PREET KAMAL SINGH	DPRO RUPNAGAR	221166	99889-19733
GURPREET PAL SINGH	XEN, H/W, ROPAR	222210	98154-88189
HARJEET SINGH	XEN, WATER SUPPLY/SANITATION	222349	9872883239
VISHAL GUPTA	XEN, PWD B&R	222934	9780847887
DAVINDER KUMAR	XEN, CENTRAL WORKS, PWD	220316	98155-45801
KAMALPEET SINGH	XEN, PANCHYTI RAJ	500256	8146617021
RAJ KUMAR	DEO(SEC.)	221163	81465-68369
JARNAIL SINGH	DEO(ELE)	221149	98147-63764
AVTAR SINGH	ELECTION TEHSILDAR	221469	98729-85757
SURINDER SINGH	SECRETARY, ZILA PARISHAD	221168	98882-82363
JAGDISH SINGH	GENERAL MANAGER PUNJAB ROADWAY, NANGAL	220351	9781905011
RAJIV KAPOOR	DSM, PLRS RUPNAGAR	NA	9463652844
KULVIR SINGH	PAWAN PROJECT NETWORK, RUPNAGAR	NA	8288004904

B. FLOOD CONTROL OFFICER IN DISTRICT RUPNAGAR

SR. NO.	NAME OF OFFICER	DESIGNATION	CONTACT NO.
1.	MR. JASWANT SINGH	DISTRICT REVENUE OFFICER- CUM-FLOOD CONTROL OFFICER	99143-24495
2	MR. RAJPAL SEKHON	TEHSILDAR SHRI ANANDPUR SAHIB -CUM-FLOOD CONTROL OFFICER	98150-39390

3	MR. CHETAN BANGAR	TEHSILDAR SRI CHAMKAUR SAHIB -CUM-FLOOD CONTROL OFFICER	98150-88084
4	MR. KULDEEP SINGH	TEHSILDAR RUPNAGAR -CUM-FLOOD CONTROL OFFICER	98722-22543
5	MR. RAM KRISHAN	TEHSILDAR NANGAL -CUM-FLOOD CONTROL OFFICER	98726-57779
6	MR. AMANDEEP CHAWLA	TEHSILDAR MORINDA -CUM-FLOOD,CONTROL OFFICER	98727-27055

C. STATE FLOOD CONTROL STAFF

<u>SR. NO.</u>	<u>ADDRESS</u>	<u>CONTACT NUMBER</u>
1.	PUNJAB CIVIL SECRETARIAT-1 FINANCE COMMISSIONER REVENUE PUNJAB {(2 ND FLOOR) (HALL)}	PHONE - 0172-2749901 FAX NO. - 0172-2747798
2	CAPTAIN KARNAIL SINGH, IAS DIRECTOR-CUM-ADDITIONAL SECRETARY REVENUE REHABILITATION AND DISASTER MANAGEMENT	PHONE- 0172-2746292 MOB NO. P.A.B.X NO.4767
3	Email Address for important information:- daily.monsoon.report@gmail.com	

D) NAME & CONTACT NUMBER OF NDRF/ ARMY OFFICERS WHO WILL BE ASSISTED DURING THE FLOOD

ARMY UNIT NAME	NAME OF OFFICER	DESIGNATION	MOBILE NO.
7TH NDRF, BATHINDA	MR. RAVI KUMAR	COMMANDANT	9417802032
	NDRF CONTROL ROOM,BATHINDA	CONTROL ROOM	01642246570
8 SIKH REGIMENT	DHARMINDER SINGH	SUBEDAR (Sr. ADJIT)	9872019158
	MR. PARVINDER	NAIB SUBEDAAR	8427569590
KUMAON REGIMENT	COL. KASHYAP,	CO	8826006743
	MR. VIJAY KUMAR	SUBEDAAR	8556053790
	MR. SHER SINGH	SUBEDAAR	9876361945

F. DISTRICT DEVELOPMENT AND PANCHYAT OFFICER

NAME OF THE OFFICER SH,/ SMT.	PLACE OF POSTING	OFFICE TELE NO.	MOBILE NUMBER
BALJINDER SINGH GREWAL	DDPO	01881-221161	98145-65219
ISHAN CHAUDHARY	BDPO, RUPNAGAR	01881-220562	95920-99544

CHAND SINGH	BDPO, ANANDPUR SAHIB	01887-232107	90411-03578
HARKIRAT SINGH	BDPO, MORINDA	0160-2632048	94177-81063
MAJOR SINGH	BDPO, CHAMKAUR SAHIB	01881-260132	90411-03578
HARINDER KAUR	NURPUR BEDI	01887-240424	97806-58086

G. FOREST OFFICER

NAME OF THE OFFICER	DESIGNATION	CONTACT NUMBER
MR. GUR AMAN PREET SINGH	DISTRICT FOREST OFFIER, RUPNAGAR	90413-89291
MR. SATWINDER SINGH	FOREST OFFICER RANGE RUPNAGAR	94632-54024
MR. BALJINDER SINGH	FOREST OFFICER RANGE CHAMKAUR SAHIB.	99153-36897
MR. ANIL KUMAR	FOREST OFFICER RANGE NURPUR BEDI	88727-00560

H. IMPORTANT TELEPHONE NUMBER AT NANGAL TOWNSHIP (BBMB)

NAME OF OFFICE	OFFICE	RESIDENCE	MOBILE
MR. KAMALJIT SINGH CHIEF ENGINEER BHAKRA DAM, BBMB NANGAL TOWNSHIP	01887-223001	01887-223024	78886-97174
MR. CHARANJIT SINGH DIRECTOR WATER REGULATION BBMB, NANGAL TOWNSHIP	01887-223758	01887-223106	75893-03892
MR. HUSAN LAL KAMBOJ DY. CHIEF ENGINEER BHAKRA DAM CIRCLE, BBMB, NANGAL TOWNSHIP	01887-223017	01887-227000	94681-77095
MR. GURWINDER SINGH SENIOR DESIGN ENGINEER WATER REGULATION, BBMB NANGAL TOWNSHIP	01887-223043	01887-223026	99155-23449
MR. PARLAD SINGH EXECUTIVE ENGINEER HYDROLOGY DIVISION, BBMB NANGAL TOWNSHIP	01887-223083	01887-223089	94180-77986
MR. RAJESH VASHISHT EXECUTIVE ENGINEER NANGAL DAM DIVISION, BBMB NANGAL TOWNSHIP	01887-220563	01887-223064	94639-34549

I. POLICE STATIONS

THE DISTRICT RUPNAGAR HAS 9 POLICE STATIONS:-

Sr.No	Name Of Police Station	Contact No	Mobile No (SHO)
1.	RUPNAGAR CITY	01881-221177	98155-55214
2.	RUPNAGAR SADAR	01881-221178	99150-12703
3.	SINGH BHAGWANTPURA	--	94648-22265
4.	SRI CHAMKAUR SAHIB	01881-260123	75298-87007
5.	MORINDA	0160-2630022	99146-63615
6.	KIRATPUR SAHIB	01887-238622	97794-59892
7.	SRI ANANDPUR SAHIB	01887-232027	98729-77727
8.	NANGAL	01887-223100	94651-69700
9.	NURPUR BEDI	01887-240422	98786-33339

