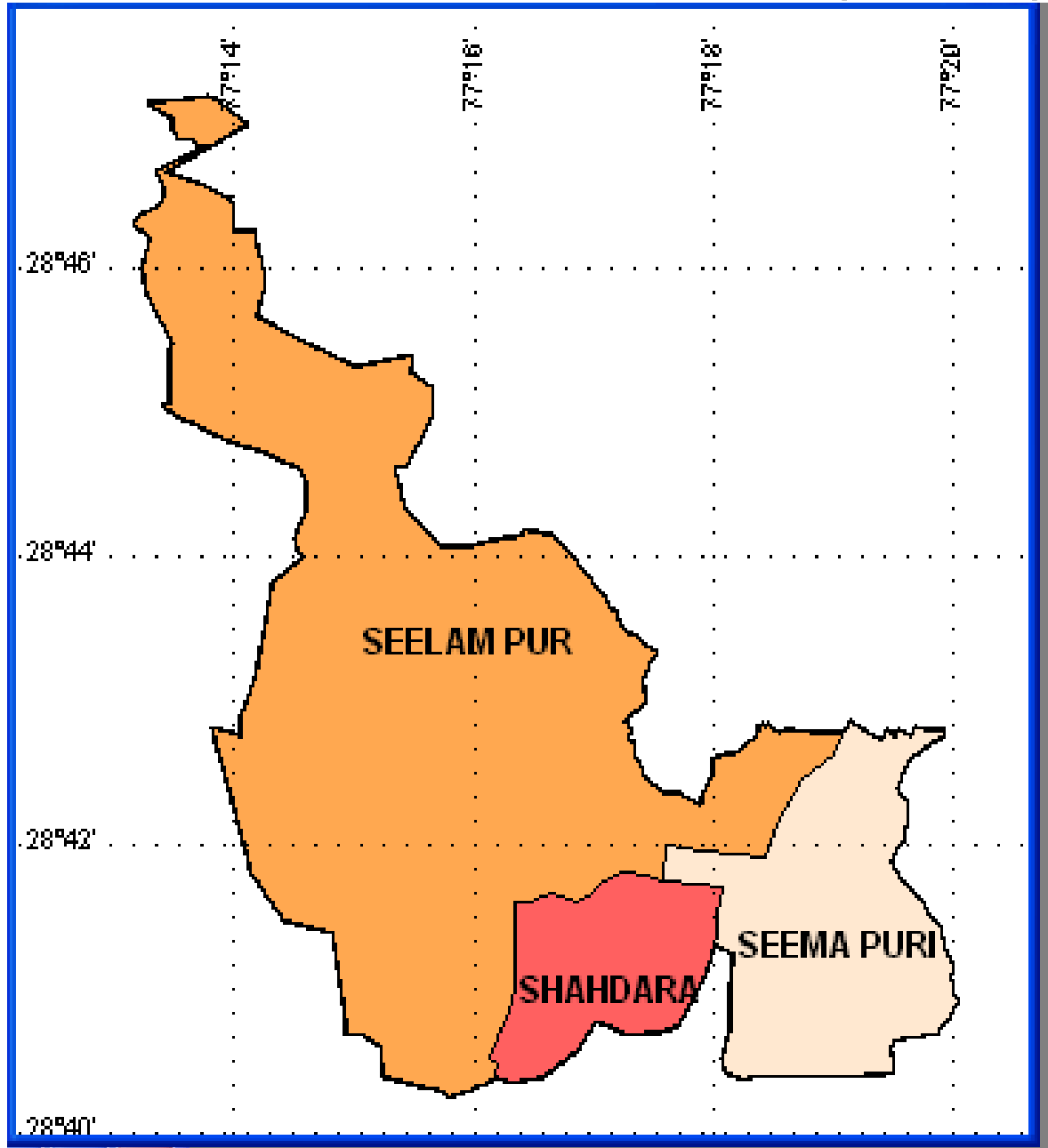




DISTRICT DISASTER MANAGEMENT

P L A N

(VOLUME-I)



NORTH EAST DELHI



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NORTH EAST DELHI (VOL. 1)

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**District Disaster Management Plan, North East Delhi
Volume 1, Version 1.0**

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EXECUTIVE SUMMARY

Although common man is not so familiar with the term *disaster management*; they are much aware of certain phenomena like Earthquake, Cyclone, Landslides and now even Tsunami. Since time immemorial India is highly prone to natural calamities. Today, from Kanyakumari to Himalaya, India doesn't have any region exempted from one or another kind of disaster.

According to a recent study, 65 per cent of total Indian landmass is highly prone to earth quake; where as, Twelve per cent is submerged under water annually (Ministry of Home Affairs, 2004). The latter alone cost about 40 million hectares of landmass. Besides, an 8000-KM stretch of Indian coastal line affects with the fury of cyclone in two seasons. That is to say eight per cent of the land is disturbed biannually with cyclones ranging from low pressure to super cyclones, like the one, which perished decades of human efforts in Orissa coast in 1999. Now the people of India especially the coastal folk are much appalled with a new avatar of nature's fury i.e. Tsunami. The unanswered question, today, is how to tackle such disasters.

Being one of the metro cities and the capital of India, Delhi spreads across 1450 sq. km area over the West Bank of River Yamuna. The National Capital Territory of Delhi is significant, not only historically, but by modernization too. Over a couple of the past decades, Delhi has emerged as the socio-economic hub of India. Delhi is comprised with nine districts and the North East district on Yamuna Bank is the most backward district in the state.

North East Delhi has a total population of 1768061 with 141547 rural and 1626514 urban populations. Major portions of the population in this district are migrants from the neighboring states viz. UP, Haryana, Punjab, Utharanchal and Bihar. North East Delhi has large number of JJ colonies and Slums. On the other hand, the infra structure facilities in North East District are not suiting to a metro city like Delhi.

Delhi lies in the Gangetic Plain, and the eastern part of Delhi is considered as the worst for earthquake as well as flood, fire and so forth. It is well known that the entire state of Delhi falls under seismic zone IV. In addition, fire is a major concern for the District as fire incidents have risen steeply in the last couple of decades. The vulnerability of the district increases in fire accidents since most of the JJ clusters and slums are thickly populated.

The efforts to prepare a document like this -The District Disaster Management Plan for North East Delhi- received inspiration from such a scenario. The objective of this document is to introduce the unique and tested method of disaster management in district northeast. Replacing the well-known traditional methods of disaster management, one has to embrace decentralized efforts and people's participation.

In the new set up of disaster management in district north east, the traditional relief and rehabilitation department has been replaced with an exhaustive institutional mechanism, in which District Disaster Management Committee is the high-powered committee in district level for planning, implementing and monitoring disaster management activities in normal time. This is a multi disciplinary committee with more than 30 members.

The Incident Command System of North East District is the higher authority during a disaster. The Incident command system is a pre-designed system, which is activated only in time of disaster and its roles, get over as soon as the rehabilitation is completed. There are Crisis Management Groups and three Working Groups under the Incident Commander cum Deputy Commissioner North East with key players to look after day-to-day disaster management activities during an emergency. Also there are 11 Emergency Support Functions with one nodal agency and a couple of supporting agencies to look after disaster management, in the new set up.

The District Disaster Management Plan for North East Delhi is a combination of modern participatory approach. This document has been designed in two volumes in which the first volume contains Twelve Chapters where as the second volume is dedicated for annexure and additional information.

Certain most important concepts and approaches like significance of a District Disaster Management Plan for North East Delhi as well as detailed profile of the district are coming in the first two chapters. The vulnerability and hazard situation and capacity available to face a disaster are elaborately described in the third chapter. Some other important discussions in the first volume are the present institutional mechanism of disaster management; Mitigation plan, standard operation procedures and action plan for the Emergency Support Functions. A plan document shall specify the sustainability of the proposed programme. First Volume of this document concludes with chapters on financial and budgetary provisions, linking with developmental plan and certain sample guidelines for conduction mock exercises.

The second volume of The District Disaster Management Plan for North East Delhi is dedicated for supplying additional information required for better disaster management. Mostly it contains the resource inventory of the district, emergency contact number, Performa for data collection, check list and many more. Besides, this volume provided an exclusive list of schools in the district, various associations in the district and much other information required in a disaster situation.

CHAPTER-01

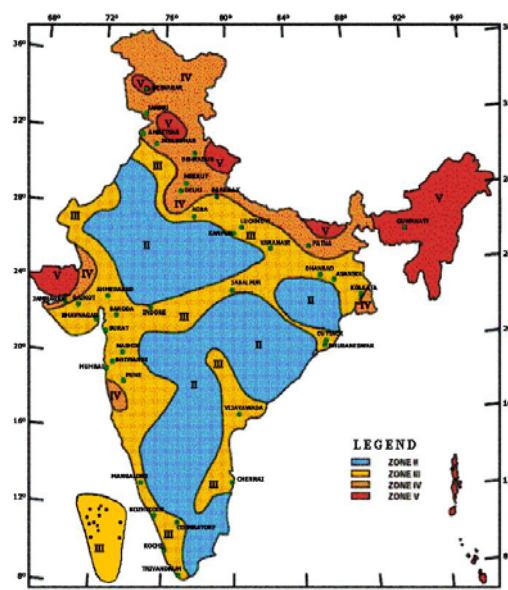
INTRODUCTION

The present capital of India, Delhi, has been the capital city of a succession of mighty empires and powerful kingdoms. According to popular tradition, the city has changed its locality a total of seven times, although some authorities, who take smaller towns and strongholds into account, claim it has changed its site as many as 15 times. All of these locations are confined to a triangular area of about 70 square miles (180 square km) called the Delhi triangle. Making disaster management significant to the state, two sides of this triangle are represented by the rocky hills of the Aravalli Range in the west and south, known as the Delhi Ridge, the third side by the shifting channel of the Yamuna River in the East, where falls District North East.

1.1 NEED FOR PLANNING

District North East of the National Capital Territory of Delhi is part of the Yamuna River Edge, *ipso facto*, it is more prone to flood and Earth Quake than the other districts. Adding to this, Districts on Yamuna Pushta are timid with migrants from various parts of the country viz. Uttar Pradesh, Bihar, Punjab so forth, creating large number of narrow lined resettlement colonies, slums and industrial areas. Moreover, in the latest seismic map of the county, Delhi falls under Zone IV, which means it is highly vulnerable to multi hazards, especially Earth Quake.

Some of the common disasters in North East District could be listed as regular and increased number of fire hazards, seasonal flood situation, explosion of LPG cylinders causing multi injury, death and loss of property, odd cases of riots and violence, large number of migration from other states creating multiple slums and contagious diseases in the slum and resettlement colonies. According to Delhi Fire Service records; there were 13336 cases of fire accidents in the district for the last 10-year span. If this figure itself is distributed for each single year the number comes as 1333 cases per year. This is an alarming figure, which calls attention of the district administration and disaster managers.



1.2 CHANGING CONTEXT OF DISASTER MANAGEMENT

Taking all this in to consideration the Government of Delhi, District North East has announced a series of initiatives for better disaster management with cooperation of all line departments, voluntary organizations, national and international NGOs and more over

the local residents. The erstwhile relief and rehabilitation section of the Government of Delhi under Revenue Department has been renamed as Department of Disaster Management as well as a separate District Disaster Management Committee has been constituted under the Deputy Commissioner, North East to look after disaster management activities.

Disaster management is a cycle in which *relief* is just a fetter for better development. But at the same time it is to be remembered that none of these steps in disaster management cycle are watertight compartments. If disasters have been handled professionally with the perspective of a long term development and sustainability, the quantity of relief required could be halved drastically.

It's a common belief of both administrators and the public that disaster management starts with distribution of relief materials and ends with restoration of the damaged infrastructures. But in actual situation, instead of waiting for disasters to get it managed, one should start preparations well in advance so that when hazard comes, it will not trigger as a disaster. Interestingly, even the phase of rescue and relief should be with a developmental touch. There is a paradigm shift from the traditional charity approach of disaster management to a professional way of handling it.



Preparation of this document is another milestone of District North East in disaster management initiatives. This document, the District Disaster Management Plan (DDMP), is a ready reference guide and manifesto of disaster management in district North East as well as an imperative for the sustainable development of the District.

1.3 OBJECTIVES OF PLANNING

Every planning has its own aims and objectives. Although the features of all districts in Delhi are not much different, there are certain peculiar characteristics that make the districts unique. In the very fact, 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 North East Delhi is to protect all its residents and every kinds of wealth from all sorts of untoward incidents through the following sectoral 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 Govt. mechanism to handle any unprecedented events
5. Instant response and effective decision making in disasters
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

1.4 METHODOLOGY OF PLAN DEVELOPMENT

Preparation of a multifaceted plan document is neither possible with a single agency nor an individual. District North East has been taken various measures to prepare this document and make it as perfect as possible. The major steps involved in preparing the plan document include the following steps:

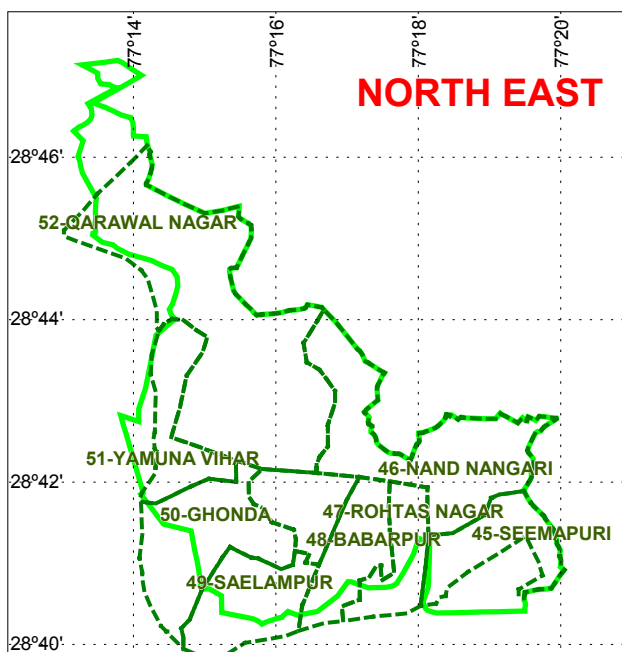
- Data collection from all line departments,
- Data analysis,
- Discussion with experts,
- Referring national and international literatures,
- Preparation of action plans for departments,
- Preparing draft plan document,
- Mock drill to check the viability and feasibility of implementation methodology,
- Wide circulation for public and departmental comments and
- Preparation of the final plan document

CHAPTER-02

DISTRICT PROFILE OF NORTH EAST DELHI

North East district is one of the nine districts of the NCT of Delhi that came into existence from January 1997 when Delhi was divided into Nine revenue Districts. Prior to that, there used to be only one district for the whole of Delhi with its district head quarter at Tis-Hazari. North East District having its head quarter at Nand Nagari has great social, economical and cultural importance. North East district is predominantly rural but also has a sizeable urban population.

There are 28 villages in the district with all characteristics of rural India. Total population of the district is 1768061 from 310887 households, out of which the male population crosses 956078 and 811983 are females. The high density of population makes it a backward district. This is one of the reasons for starting the metro railway system from Shahadra to Tis Hazari. The literacy rate of the district is 77.85. The detailed profile of the district based on Census 2001 is given in the second volume of the plan document.



2.1 GEOGRAPHY AND BOUNDARIES

Delhi is situated about 100 miles (160 km) south of the Himalayas and stands on the west bank of Yamuna River, a tributary of the Ganga. The national capital territory lies at an elevation of between 700 and 1,000 feet (213 and 305 meters) and covers an area of 573 square miles (1,483 square km) between latitude 28 degree 24' 15" to 28 degree 53' 00" and longitudes 76 degree 50' 24" to 77 degree 20' 30". Of this area, Old Delhi occupies 360 square miles (932 square km) and New Delhi 169 square miles.

The National Capital Territory is bounded to the east by state of Uttar Pradesh and north, west, and south by state of Haryana, where as district North East is rounded by other districts like North and East as well as the neighboring state of Uttar Pradesh. It generally has been presumed that the city was named for Raja Dhilu, a king who reined in the first century BC, and that the various names by which it has been known (Delhi, Dehli, Dilli, and Dhilli) have been corruptions of this name Delhi.

2.2 DISTRICT ORGANIZATIONAL STRUCTURE

The Deputy Commissioner (DC-NE) followed by an Additional District Magistrate (ADM-NE) as second-in-command heads the revenue district. The district is divided into 3 subdivisions and a Sub Divisional Magistrate (SDM) is the head of each subdivision. Each sub division is having revenue and clerical staff for its various functions. For revenue functions each sub division has Tehsildar, Naib-Tehsildar, Kanungo and Patwaris in that order. For other functions, there are clerical staffs.

Office of the Block Development Officer (BDO-NE) is also a part of the office of Deputy Commissioner. Headed by the Block Development Officer, this office is responsible for custody of Gram Sabha land and promotion of Agriculture, Horticulture and Developmental activities in the village.

There is also a center of NIC in the district officiated by the District Information Officer, which facilitates computerization and links the district with outside world through world wide websites (www). The newly created Disaster Risk Management Programme (DRM-NE) and its exclusive control room named as Emergency Operation Center (EOC-NE) are the latest additions to this structural framework.

2.2.1 Shahadra Sub-Division

This sub-division has maximum urban population in the district. The office of the Sub Divisional Magistrate (SDM) Shahadra is located in DC Office Complex, Nand Nagari. There are only two villages in the sub division and they are:

1. Babarpur
2. Saqdarpur

2.2.2 Seemapuri Sub Division

Office of the Sub Divisional Magistrate (SDM) Seemapuri is located in DC Office Complex, Nand Nagari. List of villages in Seemapuri Sub-Division are:

1. Mandoli
2. Saboli

2.2.3 Seelampur Sub Division

Seelampur Sub Division is predominantly rural in nature. The office of the (SDM) Seelampur is located at SDM Court, Seelampur on G.T. Road. Perhaps this is the largest sub Division in the State itself. Altogether there are 24 villages in the sub division and the lists of villages are given in **Table. 2.1**

TABLE-2.1
VILLAGES IN SEELAMPUR SUB DIVISION

1. Karawal Nagar	11. Maujpur	21. Ghonda Chouhan Khadar
2. Sabhapur, Shahadra	12. Ziauddinpur	22. Ghonda Chauhan Banger
3. Iharipur	13. Jafrabad	23. Khajoori Khas
4. Sadatpur Gurjan	14. Gokalpuur	24. Garhi Mandu
5. Sadatpur Musalman	15. Jeewnpur @ Johripur	
6. Baquiyabad	16. Khanpur, Delhi	
7. Badapur Khadar	17. Ghonda Gurjan Bangar	
8. Purv Delhi	18. Ghonda Gurjan Khadar	
9. Pur Shahadra	19. Mustafabad	
10. Sabhapur Delhi	20. Mirpu Tirk	

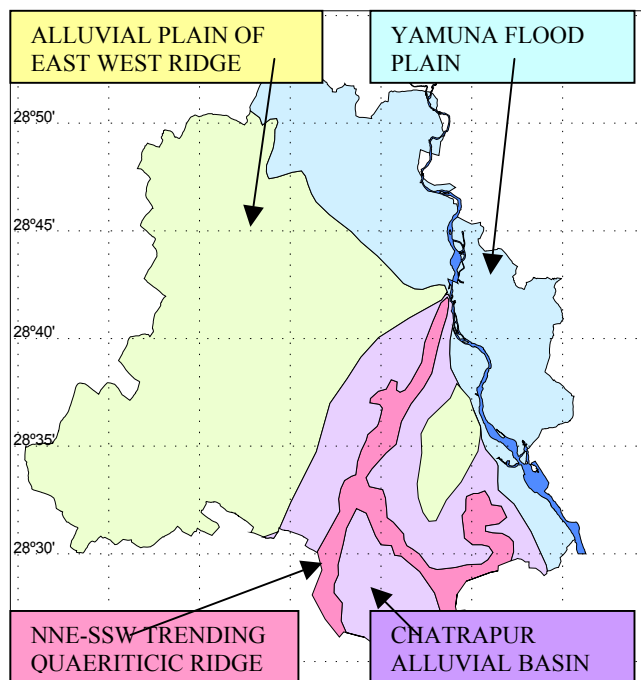
2.3 LANDSCAPE

The natural plant cover in North East Delhi varies according to the physical features with which it is associated. During the monsoon season, herbaceous species grow in profusion. Riverine vegetation consisting of weeds and grass occurs on the banks of River Yamuna. It is also known for numerous flowering plants, which provide a splash of color during the winter. The transition from winter to spring is very gradual, and only the flowers can testify to changing conditions, with chrysanthemums in December yielding place to roses in February.

2.4 CLIMATE (TEMPERATURE, RAINFALL, GEOLOGY)

The climate of North East Delhi is characterized by extreme dryness, with intensely hot summers, which is almost similar with the other parts of the state. It is associated with a general prevalence of continental air, which moves in from the west or northwest, except during the season of monsoon (rain-bearing wind), when an easterly to southeasterly influx of oceanic air brings increased humidity.

The summer season lasts from mid-March to the end of June, with average maximum and minimum temperatures of 97 °F (36 °C) and 77 °F (25 °C); it is characterized by frequent thunderstorms and squalls, which are most frequent in April and May. The monsoon season, following the hot summer, continues until the end of



September, with an average rainfall of about 26 inches (660 mm). Due to poor infrastructures and large number of slums and resettlement colonies in North East District, monsoon is seemed as a curse to the residents. The post-monsoon period of October and November constitutes a transition period from monsoon to winter conditions. The winter season extends from late November to mid-February.

Delhi consists of flat and level plains interrupted by cluster of sand dunes and a long continuous chain of rocky ridges. The sand dunes are of varying dimensions and in general trend northeast – southwest). Most of the geology of the State is comprises of Yamuna flood plains, alluvial plains and quartzite ridge.

The air in the District is dry for most of the year with very low relative humidity from April to June and markedly higher humidity in July and August, when weather conditions are oppressive. The entire State's mean daily temperature is highest in May; and the monthly mean temperature is highest in June, which is also the month when the night temperature is at its maximum. The mean daily temperature may rise as high as 110 °F (43 °C). The coldest month is January, when both the mean maximum temperature and the mean minimum temperature are at their lowest—70 °F (21 °C) and 45 °F (7 °C), respectively.

2.5 LAND HOLDING PATTERN

The pattern of land use in North East District was influenced considerably by the implementation (albeit partial) of the Delhi Development Authority's 20-year (1962–82) master plan. A large number of small manufacturing establishments have entrenched themselves in almost every part of the District. A number of local shopping centers have also developed in other localities; where as District Shopping Centers are still a dream. In the District there is a strong feeling of Mohalla (“Neighborhood”), partly induced by the peculiar housing layout. There, gates or doorways open onto private residences and courtyards or onto *katra* (one-room tenements facing a courtyard or other enclosure and having access to the street by only one opening or gate).

Cultural “islands” have formed in certain areas; for example, Bengali, South Indian, and Punjabi cultures, although cultural distinctiveness is being eroded as other city residents move in. Another facet of the profile is the slum and resettlement colonies, inhabited mostly by construction workers, sweepers, factory laborers, and other low-income groups like the one in Seemapuri. There are also urban village enclaves, where houses and streets retain rural characteristics though residents have urban occupations.

2.6 DISTRICT LAYOUT

The town/city plan of North East district is a mixture of contrasting old and new road and circulation patterns. The contrast between the convoluted form of the old city and the diagonal features of the modern traffic arteries is particularly striking. The streets tend to be irregular in direction, length, and width and are suitable only for pedestrian traffic. Thus, the pattern as a whole consists of a confusing mixture of narrow and winding streets, culs-de-sac (one side closed streets), alleys (narrow passages), and byways giving access

to residences and commercial areas. Seelampur sub division especially has such one profile in layout.

2.7 THE ECONOMY

In the economy of North East Delhi, the service sector comes first in importance and is the largest employer. The industrial sector is second and the commercial sector occupies only third place. Agriculture once contributed significantly to the economy but now is of little importance. A substantial proportion of working population has engaged in various services, including public administration, the professions, the liberal arts, and various personal, domestic, and unskilled-labor services.

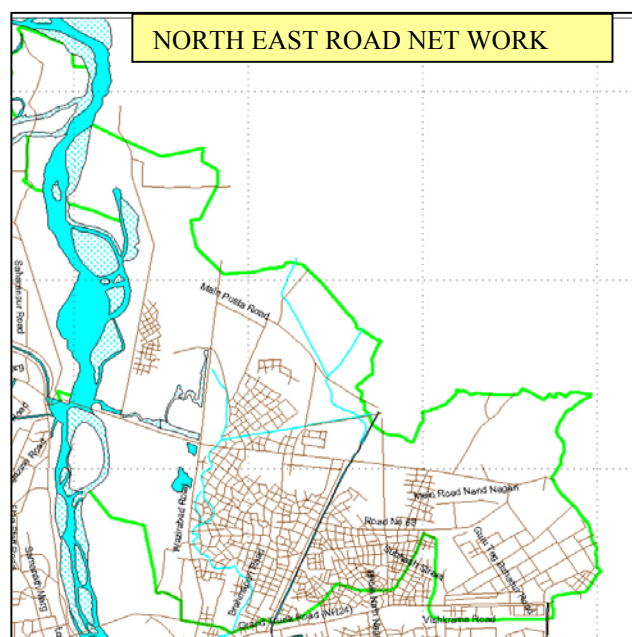
2.8 POPULATION

The Population in district North East has increased about 40-fold from 1911 and thus the population density also has been multiplied in North East Delhi. The highest growth rate occurred between 1941 and 1951—mainly because of the influx of a large number of refugees into the city at the time of independence—and the population has since grown steadily. Much of the increase continues to be from immigration. The composition of the district's population reflects its truly cosmopolitan character, with more than half of the residents coming from outside the state territory. Most of these immigrants come from other Indian states like Uttar Pradesh and the adjacent countries, and only a small proportion consists of resident foreigners. Migrants from South India like Keralites and Tamilians occupy a major portion of Dilshad Garden and Dilshad Colony. The religious composition of the population is also varied. The great majority of the population belongs to Hinduism; Muslims constitute the largest minority, followed by smaller numbers of Sikhs, Jain, Christians and Buddhists.

2.9 ROADS AND MEANS OF TRANSPORTATION

The geographic position of the State makes it a pivotal center in the subcontinent's network of transportation. Five national highways converge on Delhi where as several railway lines also meet there, linking the city with all parts of the country. The traffic-circulation pattern within a city that was designed for a smaller population became heavily overburdened with Delhi's explosive growth.

Improvements to the road system—such as flyover, adding overpasses, underpasses and widening major thoroughfares—have alleviated the worst traffic congestion, but the



sheer volume of traffic—which includes such slow-moving vehicles as bullock carts, pedi cabs, Cycle Rickshaws and bicycles—makes road travel in North East Delhi difficult, particularly during peak-hour conditions. The major road in North East Delhi viz. GT Road, Wazirabad Road and the one which leads to Vikas Marg are pathetically congested even in odd timings. Mass-transportation facilities are still inadequate, the principal means of public transport consisting of an ever-increasing fleet of buses. Ring Road bus service and Inter State Bus Terminus etc facilitate long-distance commuting within the city.

2.10 DRINKING WATER SOURCE

The supply of drinking water in the district has not kept up with demand, in spite of the fact that the water system has been improved and augmented several times. The Yamuna River, the main source of supply, is practically dry during the summer months. Presently, the District is getting privilege of using Ganga water and the upcoming Sonia Vihar water plant may fulfill the need of drinking water in the district. Underground water has generally been found to be brackish (salty) in the territory; Delhi, therefore, must depend for part of its needs upon the adjoining states. Still the residents are using a large number of hand pumps and tube wells to cater the need of pure water.

2.11 HOSPITALS IN THE DISTRICT

Overall health standards in District North East exceed the national average, but the accessibility of health-care facilities varies widely. Much of the district's health care is provided by a large number of allopathic dispensaries, Ayurvedic and *Unani* (yunani) dispensaries (i.e., practicing indigenous systems of medicine that use mostly herbs and minerals), and homeopathic dispensaries. Most of the larger hospitals—such as Guru Teg Bahadur Hospital (GTB), Institute of Human Behaviors and Allied Science, the recently opened Rajeev Gandhi Hospital, etc—are administered by the Delhi administration or autonomous bodies. Besides there exist numerous private hospitals and clinics in each nook and corner of the district. List of important Hospitals in the district are given in **Table 2.2**

TABLE 2.2
LIST OF GOVERNMENT, AUTONOMOUS AND PRIVATE HOSPITALS

SL NO	NAME	BED CAPACITY	AGENCY/OWNER
1	Guru Teg Bahadur Hospital, Dilshad Garden	1000	DHS
2	Institute of Human Behaviours and Allied Science, Dilshad Garden	578	Statutory Body
3	Civil Hospital, Shahadra		MCD
4	Swami Dayanad Hospital, Shahadra	230	MCD
5	ESI Hospital, Jhilmil	200	Statutory Body
6	Maternity Home, Shahadra	20	MCD
7	Maternity Home, Karawal Nagar	10	MCD
8	Chandiwala Maternity Home		MCD (M&CW)

9	Red Cross Society for Maternity Welfare and Child Care, Seemapuri	48	Autonomous
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GOKUL PUR

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
1.	MS Mani Nursing Home, Maha Laxmi Vihar, Karawal Nagar	Dr. Rajesh Choudhary	10
2.	Akash Hospital, F-38, 25,25 th Road, Chand Bagh	Dr. Rohini Ali Khan	8
3.	M.B Nawab Nursing Home, Brij Puri, Main Wazirabad Road	Dr. M.R Nawab	10
4.	Karawati Nursing Home, D-Block, Gali No 10, Brij Puri	Dr. Prakash Vats	2
5.	City Nursing Home and Eye Hospital, C-211, 25 th road, Nehru Vihar, Mustafabad	Dr. W.A Hashmi	8
6.	N.M Clinic, F-38, Main 25 th road, Gali 21, Mustafabad	Dr. Noushad	3
7.	Triveni Nursing Home, Sadat Pur Main Road, Karawal Nagar	Dr. S.P Singh	10
8.	Mavi Nursing Home, Sherpur Turning Point, D-Block, Nehru Vihar, Dayal Pur	Dr. R.S Mavi	15
9.	Homeopathic Dispensary, Gokulpur	Dr. S.V Kulkarni	

SEELAMPUR

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
10.	Swastic Nursing Home, C-5, Main Road, Seelampur	Dr. Ramesh Kumar Jain	15
11.	Jain Muniji Bhagmalji Maharaj Dharmarth Hospital, C-56, Main Road Subhash Park	Dr. Dharam Pal Jain	5
12.	Kamal Nursing Home, 790, Main Jafrabad	Dr. Gajja	20
13.	Sufia Nursing Home, 1435, Gali No 51, Main Market, Jafrabad	Dr. Jamal Abbeydeen	7
14.	Ansari Nursing Home, 756, Main 66 th Road, Jafra Bad	Dr. M.A Ansari	5
15.	Kahinoor Hospital, G-3, New Seelampur	Dr. P.S Pundeer	4
16.	Dharmarth, Suryaditya Nursing Home, F-Block, Subhash Park	Dr. Sandeep Jain	4
17.	Shivam Nursing Home, A-93, New Seelampur	Dr. S.K Gupta	7
18.	Mohan Nursing Home, C-43/1, Brahmapuri, Chouhan Bangar	--	5

19.	Alam Nursing Home, C-209, Gali No 6, Chouhan Bangar	Dr. Muneer Khan	5
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KHAJURI KHAS

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
20.	Sashi medical Center, E-Block, Main 20 th Road, Khajuri Khas	Dr. Rajeev Lochan	7
21.	Neha Hospital, Main Road, Karawal Nagar, Dayal Pur, Near Bus stop	Dr. Nand Kishore Mudgal	15
22.	Kumar Nursing Center, , Karawal Nagar, Dayal Pur Extension	Dr. Suman Kumar	1
23.	Bhartiya Mudgal Hospital, A-1, (F-13) Dayal Pur, Main Road, Karawal Nagar	Dr. Bharat Bhushan	6

NEW USMAN PUR

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
24.	B.K medical Center, T-680, Gali-10, Goutam Puri	Dr. Babu Khan	2
25.	Aruna Memorial Nursing Home, X-182/6, Street-8, Brahampur	Dr. S. R. Goyal	2
26.	Dr. Pankaj Goyal Nursing Home, X-9/85 A, Main Road, Brahampur	Dr. Pankaj Goyal	--

BHAJAN PURA

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
27.	Sharma Nursing Home, C-1/18-A, Yamuna Vihar	Dr. D.C Sharma	15
28.	Raj medical and Research Home, C-3/51 A, Yamuna Vihar	Dr. Rajendra Sharma	10
29.	Panchsheel Nursing Home, C-3/64, Yamuna Vihar	Dr. B.K Dass	10
30.	Narula Nursing Home, C-3/65, Yamuna Vihar	Dr. K.J Singh Narula	10
31.	Rupali Medical Centre, C-4/77 A, Yamuna Vihar	Dr. Dinesh Gupta	8
32.	Gupta Medical Centre, C-6/ 463 Yamuna Vihar	Dr. R.K Gupta	4
33.	Mamta Medical Center, C-9/12, Yamuna Vihar	Dr. Vijay Lekhi	6
34.	Jindal Hospital, B-3/194, Yamuna Vihar	Dr. R.P Jindal	4
35.	Mohan Nursing Home, B-2/14 A, Yamuna Vihar	Dr. Mohan Lal	15

WELCOME

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
36.	Sarvodaya medical Center, Tagor Gali No 12, Babur Pur	Dr. Desh Pratap	5
37.	Shyam Medical Corner, 75, double story, welcome	Dr. Umesh Kumar	5
38.	Welcome Medical Center, Z-II/476, Welcome	Dr. Rahim Bux	--
39.	M.K.Hospital, Z-II/479, 480, Welcome	Dr. Hazi Mohammad	--

SHAHADRA

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
40.	Shanti Nursing Home, D-1, Panchsheel Garden	Dr. Jai Chand Sharma	20
41.	Gupta Nursing Home, 25 RR Block, Naveen Shahadra	Dr. Ram Prakash Gupta and Geeta Gupta	15
42.	Shahadra Nursing Home, Z-1, Naveen Shahadra	Dr. Ameena Hussein	
43.	Roshan Lal Hospital, L/!, Naveen Shahadra	Dr. Surender Mohan Taneja	10
44.	Gopal Nursing Home, Loni Road, West Jyoti Nagar	Dr. H.L Gupta	20
45.	Vaid Maternity Center, 60 th Road, Balbir Nagar	Dr. Krishna Vaid	10
46.	Sona Nursing Home, Durga Puri Chhowk, West Jyoti Nagar	Dr. Subhod Goyal	10

M.S PARK

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
47.	Sagar Nursing Home, 1/4077, Ram Nagar	Dr. Sanjay Sagar,	6
48.	Family clinic, 4368, Ram Nagar	Dr. Rainu Tutla	--
	Rajdhani Nursing Home, Mandoli Road, Jagatpuri	Dr. Yogesh Sharma	--
49.	Sharma Nursing Home, Mandoli Road, New Modern Shahdra	Dr. J.D Sharama	--
50.	SAI Nursing Home, A-86, Jagatpuri	Dr. Rakhi Sharma	--
51.	Diwan Nursing Home, New Modern Shahdra	Dr. Sunil Kumar Diwan	10
52.	Jyoti Nursing Home, East of Loni Road, Jyoti Nagar	Dr. Rajeev Lochan	25
53.	Krishna Nursing home, A-118, Sulhar Bazaar, Ashok Nagar	Dr. Bijendra Kumar	5
54.	Mamta Nursing Home, D-742, Galo-	Dr. Usha Rani	5

	13, Ashok Nagar,		
55.	Ashirwad Nursing Home, DDA Flats, MS Park	Dr. K.M Prasad	5
56.	Mahasati Pravesh Kumari Charitable Hospital, MS Park	Jain Samaj Delhi	--
57.	Bhagawati Nursing Home, 1/3793, Bhagawanpur Khera, Shahdra	Dr. Ashok Kumar	--
58.	East Delhi Medical center, GT Road MS Park	Dr. Ajay Bedi	25
59.	Maha Laxmi Nursing Home, 1449/P-8, 100 th Road, Durga Puri	Dr. R.M Attray	13

NAND NAGARI

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
60.	Sitara Medical center, F-2/10,11, Sunder Nagari	Dr. Abdul Rahim	6
61.	Vimal Nursing Home, B-5, Meet Nagar	Dr. D.P Singh	2
62.	Shanti Nursing Home, 20 th Road, Meet Nagar	Dr. DPS Choudhary	2
63.	Sidharth Medical Centre, A-283, Amar Colony	Dr. Dharam Prakash	3
64.	Kataria Nursing Home, A-2/260, East of Gokulpur,	Dr. MP Singh	1
65.	Shri Ram Memorial Centre, B-4/60, Nand Nagari	Dr. Bhupender	4
66.	Akar Nursing Home, Near Bank of Baroda	Dr. P.K Sharma	6
67.	Arun Nursing Home, Near Primary School	Dr. Rajesh Kumar Terhan	4
68.	Daya Medical center, 554, Saboli, Mandoli	Dr. Gyaneshwar Sharma	10
69.	Deep Medical Center, Village Saboli	Dr. Sahib Singh	4
70.	Madhu Nursing Home, A-449, Main Wazirabad Road, Meet Nagar	Dr. Surender Kumar	5

SEEMAPURI

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
71.	Jain Medical Centre, C-22, Old Seemapuri	Dr. S.K Jain	21
72.	Rajeev Gupta Medical Center, Pocket-I, Dilshad Garden	Dr. Rajeev	5
73.	Best Care Bansal's Surgical and Maternity Center, F-118, Dilshad Colony	Dr. Shyam Bansal	5
74.	Kapoor Medical Center, F-20,	Dr. Anil Kapoor	7

	Dilshad Colony		
75.	Sameer Surgery Center, 369-A, J&K Pocket, Dilshad Garden	Dr. Sameer	1
76.	Mangalam medical Center, E-131, Opp LIC Colony, Dilshad Garden	Dr. R.K Sahgal and Dr. Poonam Sahgal	10
77.	Life Care Medical Center, J-5, Dilshad Colony, near Bus Depot	Dr. Riyaz Khan	5
78.	Sunder Lal Memorial Hospital, F-Pocket, Opp Gurudwara Baba Nakhi, Dilshad Garden	Dr. Ajay Mishra	4
79.	Gupta Nursing Home, 44 A Pocket A Dilshad Garden	Dr. A.K Gupta,	5
80.	Gupta medical center and maternity Home, 164 A, Pocket A Dilshad Garden	Dr. Y P Jindal	8

DILSHAD GARDEN

SL NO	NAME AND ADDRESS OF HOSPITALS	OWNER/AGENCY	BED CAPACITY
81.	Dev Nursing Home, Tikona Park, Dilshad Garden	Dr. Raj	--
82.	Jeevan Jyoti Hospital and heart Centre	Dr. Rajeev Lochan	60

2.12 RIVERS IN THE DISTRICT

District North East is one of the flood prone districts in Delhi due to over flow of River Yamuna in monsoon season. During the rainy season the water level of River Yamuna rises. This rise in water level is also attributed to the fact of large discharge of water from the Tajewale Dam in adjoining state of Haryana. Constant monitoring of water level of River Yamuna is ensured and all the precautionary measures are taken.

In past years, families were evacuated from the low-lying areas to safest places. In the camps of rehabilitation centers, all necessary arrangement such as lighting, water, toilets, medical assistance, supply of ration at the camp at Govt. rates were available. A round the clock duty of staff ensures timely and efficient action. In the new set of disaster management the Emergency Support Functions are being taken action to manage anymore flood situation in North East District bravely.

2.13 HOUSING PATTERN

The housing situation in North East District has been deteriorated after 1947 as result of the influx of refugees caused by the partition of India and Pakistan as well as the city's emergence as the National Capital of India. Since then, building activity has been insufficient to close the gap or to keep pace with the increasing population. As migrants

were unable to occupy key areas in the central parts of Delhi, they started encroaching Yamuna Pushta and thus North East Delhi has become a belt of slums and unauthorized colonies. This has compelled a large proportion of the city's population to seek shelter in congested areas and in unauthorized dwellings or to settle as squatters in slums. These slums are more disaster prone in terms of fire and epidemics.

Causing great concern over vulnerability in case of earthquake or heavy monsoon, the traditional houses in the district are unplanned; consisting of old structures of two, three, or multi stories with a high proportion of single-room dwelling units. A program to build new houses and rehabilitate old housing has been pushed since the 1950s; it is administered by a number of agencies, such as Government of the National Capital Territory, Municipal Corporation of Delhi (MCD), Delhi Development Authority, and various individuals and corporative.

2.14 EDUCATION

Primary-level education in the district is nearly universal, and a large proportion of students attend secondary school. Education for women at all levels has advanced at a much faster pace than it has for men. Among the institutions of higher learning, the most important is the University of Delhi, which has an affiliated college and research institutions. The Shyam Lal College is the only affiliated college to Delhi University in North East District. Besides, there are more than 127 Government and Aided Schools, 202 Public Schools and 195 MCD run Schools in the district. Most of these schools are earmarked as relief and rehabilitation centers in case of Disasters in the district. The detailed list of the schools in the district are attached in **Volume No 2**

2.15 DELHI METRO RAIL CORPORATION

Being one of the thickly populated districts in the State, District North East has been gifted with one of the most important and most modern transportation facilities viz Delhi Metro Railway. In this backward district of Delhi, Metro Railway has been created an immeasurable significance to the Northeast District. It connects the thickly populated Shahadra and the adjacent parts of the district to other vital business and administrative centers of Delhi.

Metro Railway stations deserve special attention in terms of Disaster Management, since all its stations and overhead lines had been constructed with a visionary foresight. It is claimed that all its constructions are strong enough to over come an average Earth Quake of 8.0 magnitudes. More over the underground go-downs and stations of the metro Railway could be utilized for storing relief materials in case of a disaster situation. Name of all stations coming in the territory of North East District are:

1. Shahadra Station
2. Welcome Station
3. Seelampur Station
4. Shahstri Park Station

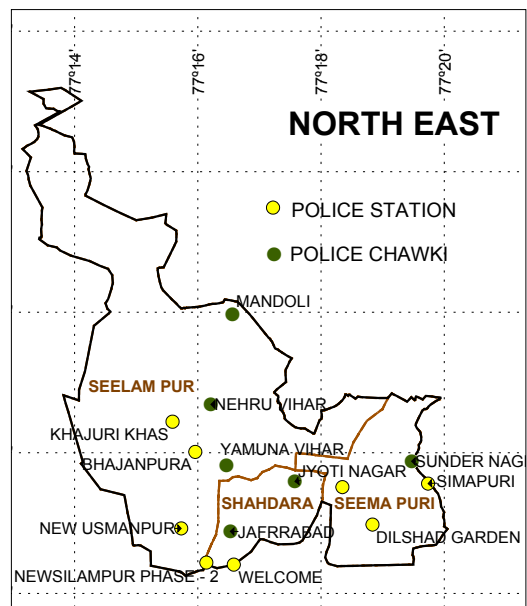
DMRC has constructed two subways near Welcome and Seelampur Metro Stations that enable people staying near the existing railway tracks, on the Shahadra-Delhi Main

line, to cross the tracks safely through box tunnels. The 3 meters high, 6 meters horizontal and 30 meters long boxes were inserted below the existing Northern Railway tracks without disturbing the train movement of Northern Railway.

2.16 DELHI POLICE

In 1978, the Delhi Police Act was promulgated, by which Delhi came under the Commissioner of Police system. Section 107 and the Section 144 Cr.PC, which are very important *viz* law and order, since then have been directly dealt with by Police. The city is divided into nine police districts, each of which is headed by a Deputy Commissioner of Police. For each Revenue District there are numerous Police Stations headed by a Station House Officer. The police stations in District North East are:

1. Seelampur
2. Usman Pur
3. Bhajan Pura
4. Khajuri Khas
5. Gokal Puri
6. Shahadra
7. Welcome
8. M.S.Park
9. Nand Nagari
10. Seemapuri
11. Dilshad Garden



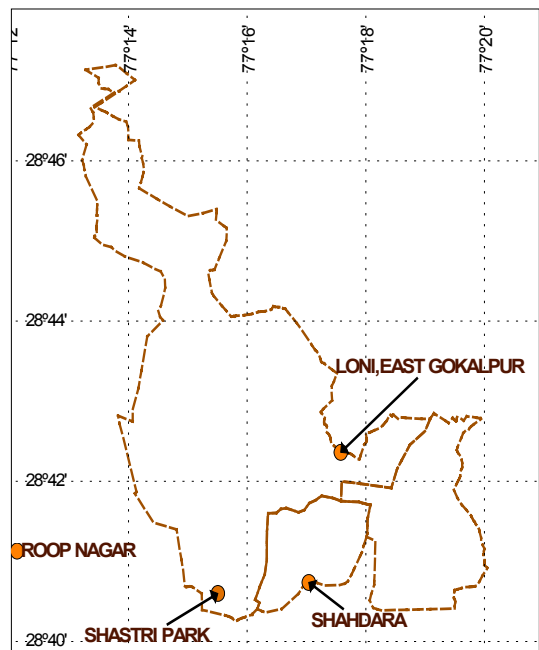
2.17 DELHI FIRE SERVICE

The jurisdiction of the Delhi Fire Service extends over both the urban and rural areas of the national capital territory. In the rural areas, temporary stations are opened during the summer.

District North East has at present three fire stations located in Shahadra, Gokalpur and Man Sarovar Park. The Fire Stations for the District are in:

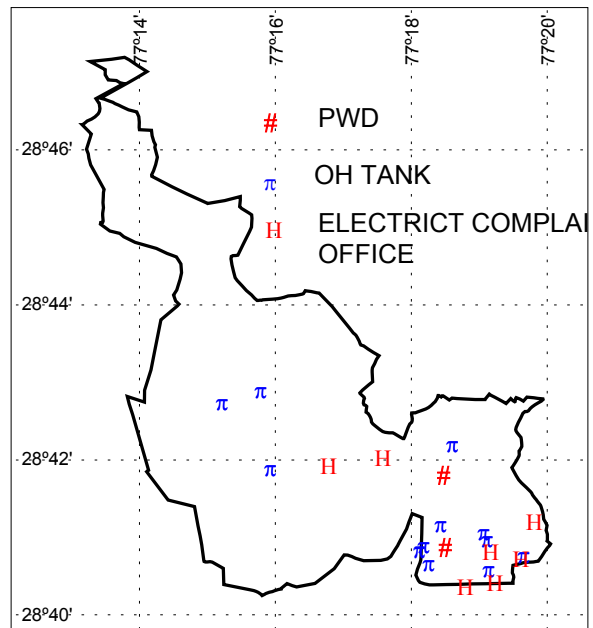
1. **Laxmi Nagar**
2. **Shahadra**
3. **Shastri Park**
4. **Gokalpur**

The Divisional Fire office for East, South and North East are common which is located in Laxmi Nagar. This is functioning as disaster management training centre too.



2.18 PUBLIC UTILITIES

While the Delhi Jal Board under the leadership of the Chief Minister take care of water supply, drainage, sewerage, and conservancy and scavenging services are mandated to the Municipal Corporation of Delhi. The corporation performs such functions as city transportation and the generation where as a private player called BSES Yamuna Power Ltd looks after distribution of electricity. Most of the constructions in the district are under the purview of Delhi Development Authority, Municipal Corporation of Delhi and the Public Works Departments. Also these three major Civic Bodies are much involved in the day-to-day affairs and public dealings and therefore a say in disaster management.



CHAPTER-03

HAZARD, VULNERABILITY AND

CAPACITY ANALYSIS

North East district is highly prone to multi hazards like earthquake, flood, fire accident, LPG cylinder blast as well as building collapse and epidemics. 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 RECORD OF PREVIOUS DISASTERS

In the district records, no major disaster has been mentioned for the last 25 years, except a single case of communal riots following the killing of the then Prime Minister Mrs. Indira Gandhi and another flood occurred due to overflow of river Yamuna in the 1980s leading to massive loss of property. Most of the other disasters for which compensation has been given or registered as untoward incident are minor cases of accidents, which may not come under the definition of a Disaster.

But at the same time a large number of earth quakes and fire accidents are registered in the district. According to Delhi Fire Service, in the last 10-year span a total number of 13336 fire assistance calls have been received in the district. Though most of these calls were of minor cases, the number is alarming. Similarly more than half a dozen of minor tremors were registered in the last decade in district northeast. The last of that series was in September 2004. The available data of disasters or would be potential disaster are given on **Table 3.1**

TABLE 3.1
SELECTED DISASTERS IN NORTH EAST DISTRICT

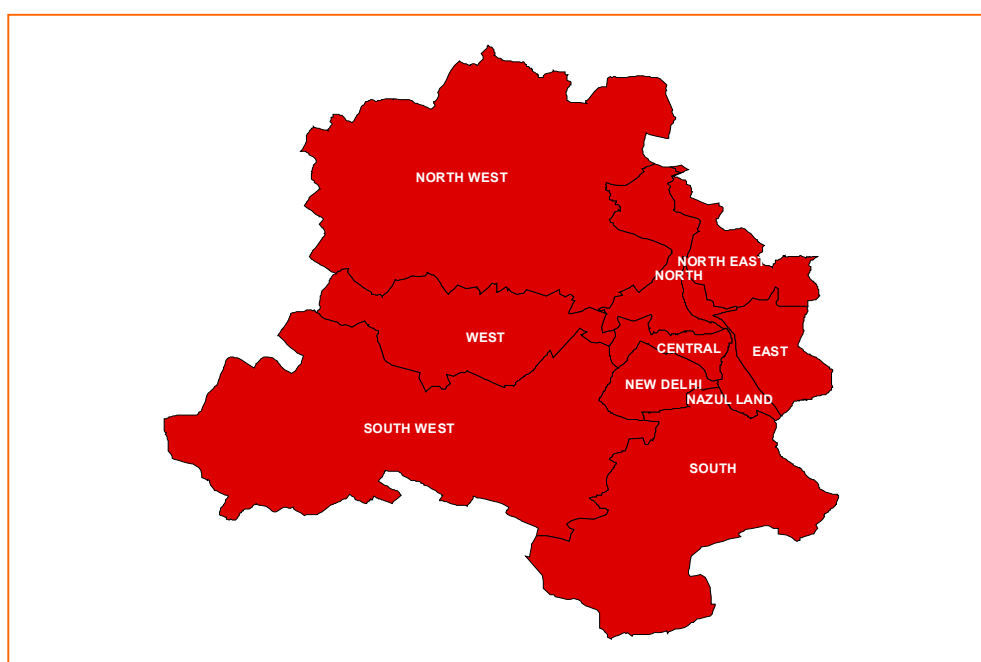
Sl No	Name Of The Disaster	Month/Year	Remarks
1.	Building collapse in M.S Park	April 2005	No casualty
2.	Fire accident in Saboli	Dec 2004	No casualty
3.	Earth Quake	Sept 2004	3.1
4.	Earth Quake	June 2004	2.0
5.	Fire accident	January 2004	No casualty
6.	Earth Quake	April 2004	1.9
7.	LPG Cylinder Blast	April 2004	No casualty
8.	Earth Quake	March 2004	2.7
9.	Fire accident in Mandoli	April 2002	No casualty
10.	Earth Quake	Nov. 1994	2.9

11.	Earth Quake	Dec 1993	3.5
12.	Earth Quake	March 1993	3.6
13.	Earth Quake	June 1992	2.8
14.	Riots	1984	Sikh riots
15.	Flood on Yamuna Bank	July 1980	Not available

Though the above table is incomplete in the sense large number of fire accidents and LPG Cylinder blast are gone unregistered, it's clear that district North East is vulnerable to earth quake predominantly and fire accidents in large number.

3.2 TYPES OF HAZARDS THE DISTRICT PRONE TO

The entire state of Delhi falls under Seismic Zone IV in the national seismic map. This means the state is adjacent to the high vulnerability area i.e. zone V. The Tectonic activities under the National Capital Region are shifting swiftly. The increased number of illegal construction practices in the area has been one of the forces behind this. The Yamuna Pushta of the National Capital Region of Delhi has been considered as the most vulnerable area in Delhi itself. The map of Delhi given below shows the Seismic zone.



People living in District North East are basically migrants from various parts of the other states. And a large number of people are illiterate. As per a recent study, about 30 per cent of Delhi's population is illiterate and a 60 per cent of the total illiterate in Delhi are from the Eastern districts of the state. This shows how vulnerable the district is. Even a minor accident turns as a disaster due to the socio-cultural back ground of the district.

3.3 IMPACT ANALYSIS OF THE WORST CASES

The worst of the disaster case in the district was a human induced disaster that has already got a mention above. Following the assassination of the then Prime Minister Mrs. Indira Gandhi, riots embarked up on against the Sikhs in the district as it was in the case of other parts of the state. This was one of the human induced disasters. The preparedness towards protecting human lives was very poor and due to the very fact large numbers of lives were lost. The entire North East district victimized this disaster.

Another case of the worst disaster in District North East was the flood caused by overflow of River Yamuna in 1980s. During that flood, preparedness and management was not up to date and even disaster management was not as popular as it is now. Modern machineries and advanced technologies were not available that time to fight against the calamity.

The most vulnerable groups of the hazard were people who lived in JJ clusters and slums on the Yamuna Pushta. Even relief activities were not sufficient and satisfactory. People of Seelampur Sub Division were highly vulnerable to flood on Yamuna as well as the fire accidents, since large number of unauthorized colonies and slums existed there. Even today the condition is not different. Though an institutional mechanism of disaster management is in place, numbers of slums and resettlement colonies and JJ clusters have multiplied.

Immediately after the independence, the other side of River Yamuna faced severe migration from Punjab and Jammu and Kashmir and this created severe cases of epidemics, environmental disasters and socio-cultural disasters. The major areas of relief and rehabilitation under taken in District North East are as follows.

- Relief in Hit & Run Cases
- Relief to the families of J & K Migrants
- Relief to the families of Punjab Migrants
- Draught Relief
- Flood Relief
- Relief to 1984 riots victims

The compensation and pension to the J & K Migrant and Punjab Migrant are still continuing. Large numbers of religio-centric communities still exist in District North East.

3.4 IMPACT ANALYSIS OF THE WORST AREAS

District North East of the NCT of Delhi is ill reputed for its slums and resettlement colonies. The people of this district are of less civic sense and low security concern. Illegal constructions, large number of cottage industries, stealing electricity, disordered weekly markets, illegal setting up of tent houses etc leads to fire accidents in the district. If taking record of the last five years, one can see that fire accidents are overtaking all other disasters in the district.

3.4.1 Mandoli Industrial Area

This is basically a village and now Mandoli Extension also has come up. Small industries in Mandoli are characterized by one room cottage industries run and managed by the house owners. Most of these industries are non-registered and no license has been issued. It is estimated that more than 12000 small industries are there in the district. Also it is alarming that a large number of cracker shops and industries are running in this area without the knowledge and approval of the administration.

3.4.2 Seemapuri Resettlement Colonies

Seemapuri is very often referred in the State map and in each planning discussion held in the state as well. This is a resettlement colony comprising two communities called New Seemapuri and Old Seemapuri. People in these colonies are mainly migrants from neighboring Uttar Pradesh, Punjab, and Bihar etc. Major occupations of the people of this area are selling fish, meat and poultry products. Numerous rag pickers and street children are seen here. Roads in these colonies are too narrow and houses are mainly in one room set up on multi-storied buildings. Neither open area, parks nor any better community centre available here. Seemapuri has been considered as one of the worst areas in the district prone to multi disasters. People comprise mainly Muslims and Hindus.

3.4.3 Seelampur Sub Division Area

Perhaps Seelampur is the largest Sub Division in the State of Delhi. But the infrastructure facilities as well as cultural background in this area are pathetic. Some of the colonies like Khajuri Khas, Sarita Vihar, and Seelampur are congested with cycle rickshaws and other older transportation means. Roads in these colonies are narrow and institutional set up is very poor. The up coming Sarita Vihar Water Treatment plant is another vital installation that can cause environmental disasters and fire like tragedies.

3.5 HAZARD/ VULNERABILITY ANALYSIS

Table 3.2 clearly explains how vulnerable the district is. According to a recent survey by the Sub Divisional Magistrates of all three Sub Divisions in North East District, there are total 28 villages in the district of which 24 are in Seelampur Sub Division itself.

An alarming 139 unauthorized colonies are spread over the district. Making things simpler, large industries are not in the district where as small industrial areas viz. Mandoli and Saboli are in Seemapuri Division. But a large number of unregistered cottage industries and house industries are running, ignoring all norms and laws of the land. They are illegally consuming electricity causing short circuits and fire accidents as well as severe air and environmental pollutions.

**TABLE 3.2
CRITICAL PROFILE IN NUTSHELL**

ITEM NAME	TOTAL NUMBERS
Villages	28
RWAs	112
Resettlement Colonies	2
JJ Colonies	2
Unauthorized Colonies	139
Slums	Data not available
Major industries	NIL
Industrial Areas	2 (Mandoli & Saboli)
District Centers	NIL
Merchants Traders Associations	5
Govt. Office buildings	21
NGOs	14
Dispensaries (Govt and Pvt)	23
Colleges	2
Cinema Halls	4
Community Centers	5
Old Fortified Areas	NIL
Monuments	NIL
Farm Houses	2
Religious center	Data not available
Bus terminus	6
Metro stations	3
Railway stations	1
Power Stations*	1
Over head Water Tanks*	11

Being the most backward district in the state, North East Delhi doesn't have even a single monument or historic structures. Neither has it had any Farmhouse nor any district centre.

3.5.1 Vulnerability Due to Tent Houses

This is a major concern in the district. A large number of fire accidents take place in District North East due to lack of precaution while setting up tent houses. District North East has a limited number of standard community centers and marriage halls. Also open grounds and parks are not sufficient to organize party or festivals in the district. Because of these constraints, people prepare makeshift tent houses for occasions like marriage, cultural events, political meetings and religious festivals. Unfortunately they neither seek permission from the administration nor take any precaution to prevent calamity. There are a large number of fire accidents in such tents where electricity has been taken illegally from the eclectic poles directly.

3.5.2 Forewarning and Speed of Disaster Onset

In the present scenario, there is no scope of forewarning for any disaster in the district unless it is in the main land of the district. Although warning has been issued for a case like fire accident, the fire fighting teams can not reach the spot in time due to congested traffic and narrow road. The fruit and vegetable vendors and other small business units occupy most of the roads as well. The fire fighting teams located in three strategic spots in the district are still far away from disaster prone sites like Seemapuri, Seelampur and Mandoli. Besides the poor infra structure facility and heavy traffic in the main roads of district prevent fire fighters entering to the district from neighboring Laxmi Nagar.

3.6 RESOURCE INVENTORY/CAPACITY ANALYSIS

Considering the backwardness of the district it is analyzed that sufficient resources are not available within the district. Material resources, monetary resources and human power is not sufficient to manage any larger calamities.

3.6.1 Civil Society Organizations

District North East has decentralized its administration by increasing people's participation in various levels. To take part in this effort it has a large number of Resident's Welfare Associations (RWA) in the district. The Entire Community Based Disaster Management planning process has been designed in such a way that each RWA territory has to prepare their own plans and sensitize its residents on disasters and disaster managements.

There were only 83 RWAs in the district, but in a couple of months back another dozen or more RWAs were registered with the Government of Delhi. At present altogether there are 112 RWAs in the district. Apart from this numerous non-registered RWAs are working in the field of development. The detailed list of Resident Welfare Associations in District North East is available in volume no 2 of this document.

The Non Governmental Organizations (NGOs) working in district North East play a significant role in educating the public on various social issues and their rights. Disaster Management is one of the major subjects for them and the District Administration has already started collaboration with such organization for community level disaster management planning.

Though numerous NGOs are working in the district, most of their Head Quarters are in other districts in Delhi. The day-to-day operations of these NGOs take place through their project offices. This creates problem in quick decision making in cases of disaster management. Some of the Voluntary organizations have been started in the mid 90s were converted as resident welfare associations of that area and registered to the Government of Delhi for Financial assistances and development role.

3.6.2 Open Areas in the District

The District Administration has identified open spaces adjacent to schools, colleges and certain other vital installations in the district that could be used for relief and rehabilitation in case of disaster. They are listed in **Table 3.3**. The district does not have any large or sizable ground or storing place for rehabilitation efforts, if required in future. The open areas in the district had been occupied by the unauthorized colonies creating severe problem in emergency rehabilitation efforts. There are large numbers of parks in residential areas in authorized colonies, even that are occupied by newly upcoming religious places.

TABLE 3.3
OPEN AREAS IN DISTRICT NORTH EAST

AREA	LOCATION
1. Open land behind Gagan Cinema	Opp DC (NE) Office
2. Harsh Vihar	½ KM away from Souchalaya
3. Near Sabji Mandy	Near Saboli Village
4. Tahirpur Village	DDA Land –do-
5. Near Mother Theresa Leprosy Hospital	Tahirpur
6. Jyoti Nagar Tent Wala School	Jyoti Nagar
7. Behind Picnic Hut	Loni Road
8. Behind Usman Pur Pushta I,II,III	Adjacent to Sulabh Souchalaya
9. Shahstri Park	Adjacent to Sulabh Souchalaya
10. Shahstri Park Police Station	ISBT Usman Pur
11. Yamuna Vihar Open Park	In each Block
12. Near MTNL Office	Yamuna Vihar
13. Ram Leela Ground	B2-Yamuna Vihar
14. Bhagat Singh park	Yamuna Vihar
15. Shyam Lal College Ground	Opp Welcome station
16. Near GTB Hospital	Dilshad Garden
17. Ambedkar College Ground	Shahadra
18. E-Block Nand Nagari	Nand Nagari
19. Mandoli Jail Ground	Near GT Road, Mandoli
20. Near Shahadra Fire Station	Near Shyam Lal College

3.7 PREPAREDNESS ANALYSIS

District has to take a series of steps to prepare the community, administrators and other stakeholders of disaster management. Mock drills are to be organized in regular interval of time to create awareness amongst the administrators and community on further requirements for disaster management.

Being on the other side of River Yamuna, access to the central part of Delhi has always become a problem for the district. There are only three bridges over Yamuna to commute to the district one is ITO Bridge and the second Wazirabad Bridge and third is Yamuna Bridge. While the latter two are narrow and old in nature the former one is highly traffic bound. In case of a high magnitude Earth Quake in the Yamuna Pushta, existence of all these bridges will be in question. For better solution the Yamuna Bridge and Wazirabad Bridge needs to be strengthened and the roads leading to it needs broadening.

The road and ways leading to the district head quarters are narrow in nature and old in capacity. Increased number of Cycle Rickshaws and trucks on these roads create acute problem even in emergency traffic. Lack of over bridges over Vikash Marg and GT road as well as Wazirabad Road may thwart progress in relief and response in disaster management. All roads in the district colonies are very narrow in nature and even annual maintenance is nor sustainable. Though limited in number, a couple of bus terminals and bus depots are in the district, which may help in moving or storing relief materials.

The public distribution system in the district is not completely successful. Lack of modern and basic equipments, vehicle, and storage facility in the system may delay the process of relief and rehabilitation in a worst case. To cope up with an earth quake of 8.0 magnitudes will not leave even the cornerstone of the public distribution system.

As mentioned earlier there is only one hospital in the district, which has the capacity of 1000 beds. But people from other states too approach this hospital for their medical requirements. There are large numbers of private nursing homes and clinics in the district. Still the Government hospital system needs updation, exclusive wards and equipments for disaster-affected patients.

The Centralized Accident and Trauma Services (CATS) were conceptualized as a plan scheme in 1984 during the 6th Five Year Plan. The scheme was to be implemented under the aegis of All India Institute of Medical Science (AIIMS). In April 1988, the ambulance service was transferred to the Delhi Fire Service (DFS) with a fleet of 14 ambulances. In North East District the CATS service is available near Shyam Lal College IHBAS, Shahadra, Loni Chowk Crossing Govt. Dispensary, Yamuna Vihar and I.S.B.T. Sushrut Trauma Centre Crossing. The service of Fire service is appreciable even though there are only two fire stations in the district. They need to be updated with modern sophisticated equipments and vehicles and more number of personnel.

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 Groups 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.

4.2 STATE LEVEL MECHANISM

Similar to the mechanism in national level, disaster management has been institutionalized in state level also. In Delhi numerous initiatives are taken up to make disaster management institutionalized. In the state of Delhi, the Lieutenant Governor is the chairman of Disaster Management Authority and the Chief Minister and the concerned ministers are members.

4.2.1 Delhi Disaster Management Authority

Along with other 10 states in India, Delhi has constituted the Delhi Disaster Management Authority (DDMA) under the chairmanship of Lt. Governor of Delhi and the Chief Minister and Ministers of relevant Departments as members. For Delhi, the Department of Revenue has been identified as nodal department to tackle disasters, being the Divisional Commissioner as its nodal officer and convener of the DDMA.

4.2.2 State Crisis Management Group

The State Crisis Management Group's 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 state Governments and districts in relation to disaster preparedness and relief
3. To obtain information from the nodal officers on measures relating to the above.

4.2.3 State Steering Committee

In the special set up of Delhi, a State Steering Committee has been constituted under the chairmanship of the Chief Secretary of Delhi with nodal officers from the government departments. This committee is responsible for implementation of Disaster Management Programmes in the NCT of Delhi. The state steering committee has the following members:

1. Commissioner of Police, Delhi
2. Vice Chairman, DDA
3. Principal Secretary, Home
4. Principal Secretary, PWD
5. Principal Secretary, Urban Development
6. Commissioner, MCD

7. Chairman, NDMC
8. Chairman of Delhi Vidyut Board
9. Director General, Delhi CD & HG
10. Chief Executive Officer, Delhi Jal Board
11. Divisional Commissioner
12. Chief Fire Officer, Delhi Fire Service

4.2.4 State Working Groups

A couple of working groups are constituted in state level in line with the national set up. These working groups are given with particular responsibilities and they are the core group of such factions. Besides, there is an Emergency operation Centre at the state level to coordinate and perform disaster management activities in a disaster situation as well as in the preparatory stage. In state level the divisional commissioner act as the Incident Commander for the entire National Capital Territory of Delhi.

4.3 DISTRICT LEVEL MECHANISM IN NORTH EAST DELHI

So far the Deputy Commissioner (NE), with help of Additional District Magistrate under the Department of Relief and Rehabilitation, was looking after the entire disaster management activities in District North East. But as Delhi Disaster Management Authority (DDMA) has been set up and the proposed Bill for changing name of Relief and Rehabilitation Department as “Department of Disaster Management” is under preparation, the structure of district level disaster management took a new form. Apart from this, GOI-UNDP Disaster Risk Management Programme has been started with the support of United Nations Development Programme.

4.3.1 District Disaster Management Committee-North East Delhi

District Disaster Management Committee is the high-powered committee at District level to look after disaster management and emergency response. This high-powered committee is chaired by the Deputy Commissioner (NE) with all Policy Makers from the District/Nodal Officer of each line department/ADM (NE)/SDMs and nodal officers from various Organizations as its members. ADM (NE) is the convener of District Disaster Management Committee (DDMC).

Inclusion of new members and removal of existing members of the DDMC, as it is required, is under the discretion of the DDMC. But this shall be discussed in the Meeting prior to action. Also members from RWA, MTA, MCD councilors etc shall be nominated on rotation basis, so that maximum stakeholder ship can be assured.

A District Project Officer (DPO-NE) has been appointed in the district directly under the Deputy Commissioner to look after the day-to-day affairs of disaster management in the district.

The DDMC members have to meet at least once in two months in normal situation and once in month or more in case of crisis situation. Minutes of DDMC meeting shall be circulated among the members. Also the roles and responsibilities of each member differ

each other depends up on the department; there are some common responsibilities. Also each of the DDMC members is member of the Emergency Support Functions (ESFs) in the district.

4.3.2 Duties of DDMC Members-North East Delhi

The major functions and responsibilities of the District Disaster Management Committee members are given below. Besides these functions as DDMC member, each nodal officer will be accountable to his own department in terms of the disaster management. District Disaster Management Committee (DDMC-NE) is an apex planning body and will play a major role in preparedness and mitigation. The detailed account of the functions of the DDMC has been given in table 4.1

4.3.3 District Crisis Management Group

In District North East a Crisis Management Group (CMG) has been functioning as core group to take emergency decisions in disaster situations. This group convenes emergency meetings only and when there is an emergency situation in the district. In normal condition the District Crisis Management Group (CMG) is expected to meet biannually to assess the situation where as in case of disasters it has to meet frequently with the following functions:

1. To take stoke of the situation
2. Assist the Deputy Commissioner cum Incident Commander to take appropriate decision in managing the disaster
3. Deciding the way of immediate operation in disaster relief and rehabilitation works
4. Any other as per the need of the time.

This is a core group with confidential in nature. It is not mandatory to share eth decisions taken in the Crisis Management Group to share with others. The members of the CMG in District north East are:

- ***Deputy Commissioner (NE)-Chairman***
- ***Additional District Magistrate (NE)-Convener***
- ***Member of Parliament form North East District-Member***
- ***Chairman of the District Development Committee (DDC)-Member***
- ***Deputy Commissioner of Police (NE)-Member***
- ***District Project Officer (DPO)- Reporting Secretary***

**TABLE 4.1
DUTIES OF DDMC MEMBERS**

Designation	Responsibilities
<p>Deputy Commissioner</p> <p>Incident Commander (North East Delhi)</p> <p>Chairman</p>	<p><i>Over all planning coordination and supervision of the Disaster Management initiatives including Disaster Risk Management Programme</i></p> <p>Act as Incident Commander during disaster</p> <p>To implementing District Disaster Risk Management Programme in consultation of DDMC at district level</p> <p>To direct and coordinate district administration through various departments and line agencies for the Disaster Management</p> <p>To set up the District Emergency Operation Centre (EOC) and facilitate setting up of mobile coordination</p> <p>To constitution of DMCs and DMTs at Sub-division, wards and Committee level.</p> <p>To ensure preparedness among communities by generating awareness and building capacities</p> <p>To ensure community participation in all the stages of disaster operation in order to maintain community morale an confidence, maximize the use of local resource, reduce the cost of operation and promote a faster recovery</p> <p>To coordinate activities of voluntary organization and NGOs to ensure community participation</p> <p>To facilitate DMTs for preparing Community Disaster Management plans</p> <p>To procure/hire/purchase/pre-contract material for the DRM</p> <p>To coordinate with all fields of responses including transit camps, relief camps, feeding centers and cattle camps in an emergency.</p> <p>To facilitate updating of the IDRN and other DRM web site</p> <p>To chair the DDMC meeting in a regular period of time</p> <p>To supervise and monitoring of disaster management and relief activities within the district</p> <p>To report to the Divisional Commissioner officer as per notification</p> <p>To implement district level mock drills at least biannually.</p> <p>Any other as per the need and direction of the Divisional Commissioner or the higher authority</p>

<p>Add. District Magistrate (North East Delhi)</p> <p>Convener</p>	<p>To convene DDMC meeting in regular period of times and circulate the minutes of the meeting among the members.</p> <p>To coordinate with the Chairman of DDMC and assist to carry out any DRM activities in the District</p> <p>To officiate the DDMC meeting and other proceedings in the absence of DC/Chairman of DDMC</p> <p>To Prepare and send timely report of the DRM as well as the minutes of the to the Div Com office.</p> <p>To Facilitate coordination of all line departments in the Dt. for the disaster management</p> <p>Any other responsibility as the Incident Commander cum Chairman of DDMC allocates, as per the Disaster Management Act.</p>
<p>MP, MLAs MCD Councilors</p> <p>(North East)</p> <p>Members</p>	<p>To Ensure that the stakeholders and line departments are carrying out the roles and responsibilities properly</p> <p>To lobby for disaster management in the policy formulation meetings</p> <p>To Oversee and endorse Community Based Disaster Management Plan.</p> <p>To assist the implementation of District Disaster Risk Management Plan</p> <p>To assist in mass mobilization/campaigns for community awareness</p> <p>To help the Dy. Commissioner during emergency and providing appropriate help especially in the area of warning dissemination, search and rescue, distributing relief material and damage assessment etc</p>
<p>Sub Divisional Magistrates</p> <p>(North East)</p> <p>Members</p>	<p><i>Responsible for disaster management in their own sub-divisions</i></p> <p>To coordinate with Deputy Commissioner in all the activities of the DRM carrying out in their own sub division</p> <p>To facilitate and coordinate preparation of sub-division Disaster Management Plans</p> <p>To constitute and coordinate Sub-Division Disaster Management Committee</p> <p>To facilitate preparation of Community/School/hospital disaster management plans in their own sub divisions.</p> <p>To exercise Sub-Divisional mock drills at least biannually</p> <p>To report to Dy. Commissioner periodically on progress in the DRM</p> <p>To head the Onsite EOC and its team in rapid assessment and follow up action in time of Emergency.</p> <p>Any other responsibility as the Incident Commander cum Chairman of DDMC allocates, as per the Disaster Management Act.</p>

<p>ALL OTHER MEMBERS OF DDMC</p> <p>(North East)</p>	<p>To assist the Dy. Commissioner in preparation of District Disaster Management Plan (DDMP)</p> <p>To prepare Disaster Management Plan for his/her own Department (DMPD) and the subordinate units of the department like police stations, duty stations, vital installations, schools, hospitals etc</p> <p>To convey such (DMPDs) to the Emergency operation Centre (EOC NE) .</p> <p>To provide desirable staff for disasters preparedness among communities by generating awareness and building capacities</p> <p>To assist in preparation of Community Based Disaster Management plan (CBDM) and training to the DMTs for various operations of disasters.</p> <p>To organize regular sensitization cum training on disaster management for their own departmental staff.</p> <p>To constitute/update and train Quick Response Teams (QRTs) and Field Response Teams (FRTs) at their department level</p> <p>To coordinate the Support Agencies of the Emergency Support Functions (ESFs) and organize periodic meetings</p> <p>To organize Mock Drills in their own departments level and the subordinate units level biannually in coordination with the DC (NE)</p> <p>To assist the functioning of District emergency Operation Centre</p> <p>To coordinate with the Dy. Commissioner during emergency and providing appropriate help</p> <p>To report to the Chairman of DDMC periodically on progress on disaster preparedness in their department</p> <p>To provide all possible human resource/equipment resources/communication resources available in the department to the Incident Commander in a disaster situation</p> <p>To provide all possible human resource/equipment resources to the deputy commissioner for organizing training programmes on disaster management.</p> <p>To promote the disaster resistant technologies and seismic engineering in construction pertaining to the department.</p> <p>To negotiate/implement retrofitting methods for the existing vital/lifeline installations under the department</p> <p>Any other responsibility as the Incident Commander cum Chairman of DDMC allocates, as per the Disaster Management Act.</p>
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<p>District Information Officer</p> <p>(North East)</p> <p>Member</p>	<p>To assist the Dy. Commissioner in preparation of District Disaster Management Plan (DDMP)</p> <p>To update the India Disaster Resource Network (www.idrn.gov.nic.in) web site and other such web portals launched by the government and the district.</p> <p>To prepare Disaster Management Plan for his/her own Department (DMPD) and convey the same to the Emergency operation Centre (EOC NE) .</p> <p>To constitute/update and train Quick Response Teams (QRTs) and Field Response Teams (FRTs) at their department level</p> <p>To coordinate the Support Agencies of the Emergency Support Functions (ESFs) and organize periodic meetings</p> <p>To organize Mock Drills in their own departments level and the subordinate units level biannually in coordination with the DC (NE)</p> <p>To assist the functioning of District emergency Operation Centre</p> <p>To provide all possible human resource/equipment resources/communication resources available in the department to the Incident Commander in a disaster situation and for training</p> <p>Any other responsibility as the Incident Commander cum Chairman of DDMC allocates, as per the Disaster Management Act.</p>
<p>District Project Officer</p> <p>(North East)</p> <p>Ex-Officio Member</p>	<p>To assist the Convener of the DDMC in organizing the its meeting/reporting and circulating minutes of the meeting</p> <p>To assist the DDMC Chairman in exercising the day to day affairs of the Emergency Operation Centre</p> <p>To assist the Chairman in implementing the DRM programme in the district.</p> <p>To assist the Convener of the DDMC in preparing periodic reports of DRM programme in the District and any other documents/reports pertaining to disaster management.</p> <p>To negotiate with UNDP/NGOs/INGOs/and other bilateral agencies in implementation of the DRM Programme.</p> <p>Any other responsibility as the Incident Commander cum Chairman of DDMC allocates, as per the Disaster Management Act.</p>

4.3.4 District Working Groups

District Disaster Management Committee is a multi-disciplinary committee for disaster management activities in the district. It is broad in nature. The major functions of this committee are related to preparedness, mitigation and planning of disaster management. In order to simplify the functions of the DDMC, three working groups are constituted in North East District of Delhi with certain focused functions. These are:

1. WORKING GROUP FOR PREPAREDNESS AND MITIGATION
2. WORKING GROUP FOR RELIEF AND REHABILITATION
3. WORKING GROUP FOR DISTRICT PLAN REVIEW AND UPDATION

Working Group for Preparedness and Mitigation will be responsible for all disaster management preparedness and mitigation activities in the district. They may direct and review the preparedness measures in the district. Also they assist the DDMC in coordinating preparedness activities in line departments and organizations. The major preparedness measures are:

- Overlooking and monitoring awareness programmes of the public and government departments
- Organizing/overlooking training and capacity Building programmes for the task forces, various committees and staff of line departments
- Facilitate preparation of disaster management in schools/hospitals/Territory of Resident Welfare Associations and institutions.
- Initiate and monitor mock drills in various levels
- Lobbying for policy formulation for disaster management

It is mandatory for all institutions in District North East - viz. schools, collages, hospitals, Cinema Halls, any other big institution where more than 50 people gather at a time or different times in a day - to provide assistance to this working group for better implementation of disaster awareness/training programmes in their institution or to implement disaster management programmes directed by the working group on their own as the incident commander demands.

Working Group for Relief and Rehabilitation is to assist the Incident Commander particularly in a disaster situation. They will be responsible for all relief and rehabilitation related activities in the district, in case of a disaster. It is their responsibility to prepare code of rehabilitation and updating it early in advance of a disaster. Other functions of the group are:

- Preparation and updation of necessary formats and Performa for disaster assessment, monitoring, relief distribution and situation reports
- Identifying storage spaces and go downs for collecting relief materials.
- Engaging in to pre-contract well in advance
- Fair and transparent distribution of relief materials
- Prepare strategy for rehabilitation

This working group under the direction of the Incident Commander North East has full power to occupy/take over any vital installations - viz. schools, collages, hospitals, Cinema Halls, underground godowns, or any other big institution where they feel that sufficient storage facility is there – for storage of relief materials or any other thing during or immediately after a disaster.

Working Group for District Plan Review and Updation is exclusively for the disaster management plan updation. They have to review the existing district plan biannually and suggest amendments in it. Each revised version of the District plan shall be circulated to each member of the DDMC and ESF timely. Similarly they will look after plan documents of all line Departments/Organizations and suggest modifications as well as monitor progress of Community/school/Hospital disaster management plan preparation.

It is mandatory for all institutions in District North East - viz. schools, collages, hospitals, cinema halls, any other big institution where more than 50 people gather at a time or different times in a day - to prepare their own disaster management plans based on the guidelines issued time to time by the district administration and to share a copy of the same with this working group. Also they may execute the modifications provided by this group and intimate changes they made in the plan document.

4.3.5 Emergency Operation Centre

District North East shall have an exclusive Emergency Operation Centre (EOC) at District Head Quarter other than the revenue control room. This shall be round the clock set up with sufficient manpower and most modern equipments. 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.

There shall be permanent sitting place for each emergency Support Functions (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.

4.3.6 Role of Emergency Operation Centre in Normal Time

The Deputy Commissioner of District North East is empowered to appoint an Administrative Officer as Officer-in-charge of EOC. He will be responsible for the effective functioning of the EOC. 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.

4.3.7 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 DDMC-NE
3. Hospitals in the disaster area/CAT etc
4. Office of Divisional Commissioner
5. State Relief Commissioner
6. Emergency Operation Centre in the neighboring districts
7. National/State Emergency Operation Centre
8. People's representatives form 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.

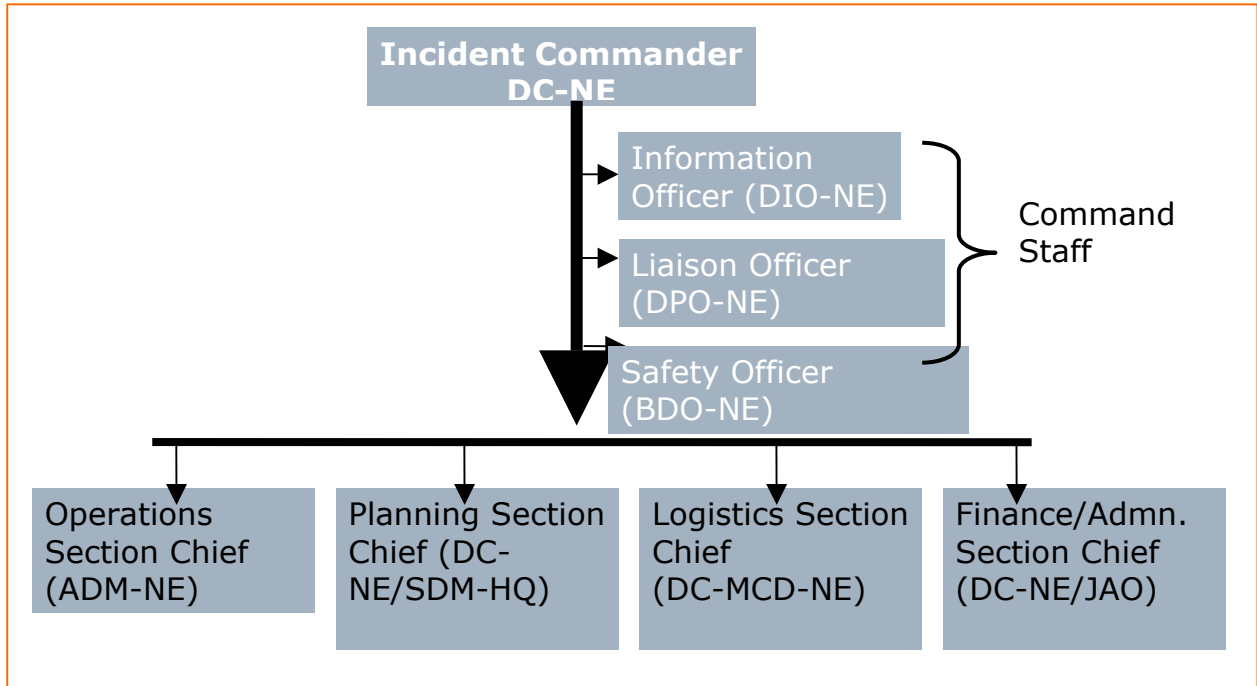
4.4 INCIDENT COMMAND SYSTEM IN NORTH EAST DELHI

The Incident Command System (ICS) is a recent inception in the disaster administrative mechanism of the country. This is a tested institutional mechanism with clear objective of coordinating all manpowers, and other resources. In an administrative circle where there is large number of line departments with unique features exist, a mechanism like Incident Command System is much useful.

District North East has tested and first implemented this system in the NCT of Delhi successfully. In this chain of system, the Deputy Commissioner/District Magistrate is the commanding officer in case of emergency, pertaining to his own district.

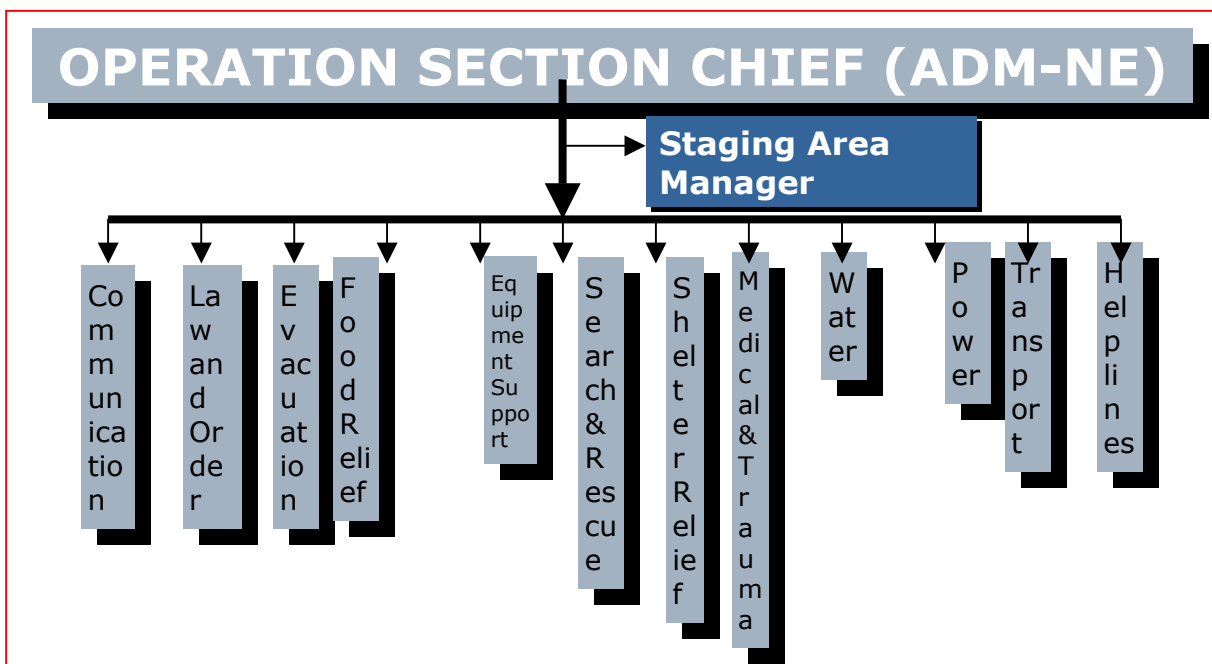
In Incident Command System under the Deputy Commissioner North East, there shall be an operation section with a chief and associates, planning section with a leader and associates, logistic section with a leader and section chief and finance section with a leader and associates. All team leaders will be in the rank of ADM/Line Department Heads in the district who are senior level officer.

TREE DIAGRAM 4.1 THE INCIDENT COMMAND SYSTEM



If the disaster is in more than one district, the DC/DM of the district that has maximum loss will act as Incident commander. In case all the districts are more less equally affected, then the Divisional Commissioner of Delhi will act as Unified Incident Commander and the DC/DM as Incident Command in his/her own district. It is mandatory that all line departments/Organizations/individuals should obey the command of the Incident Commander as condition demands. He can divert all mechanisms and resources in the district to fight against a scenario leading to disaster/calamity in the district. The entire Incident command system is shown in the **Tree Diagram 4.1/4.2/4.3/4.4 &4.5**

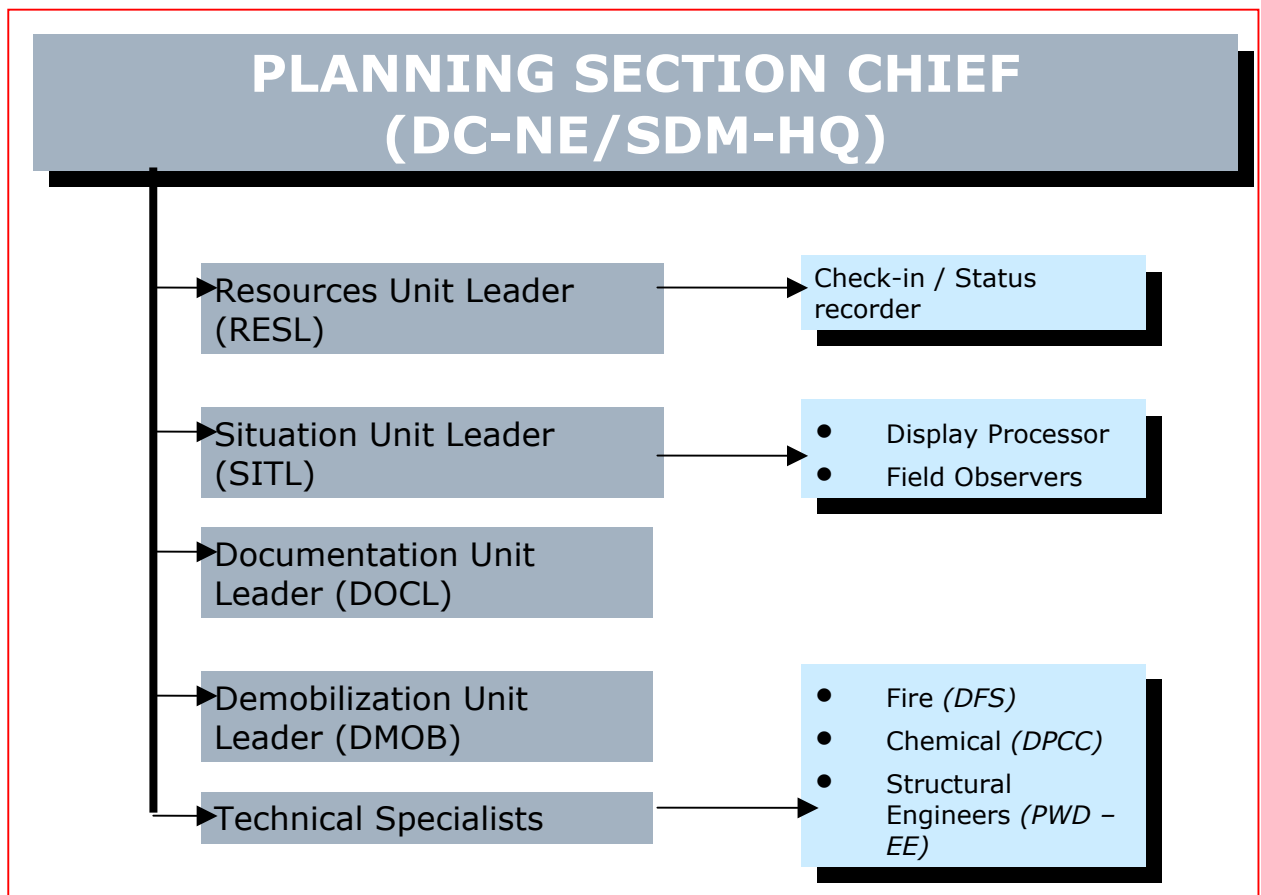
TREE DIAGRAM 4.2 OPERATION SECTION IN ICS



The SDMs shall not be given any responsibility in the incident command chain since they are to look after the onsite EOC in their territory or as assigned to the affected areas as well as they are the Team Leaders of Incident Management Teams (IMTs) in each Onsite Emergency Operation Center.

The Civic bodies like the MCD, District Health Department, District Senior/junior Accountant or any nodal officer capable of doing the same can be given this assignment. This is the sole discretion of the Incident Commander to appoint the Section chief. These section chiefs are vested with commanding authority and logistic assistance to deliver the concerned responsibility.

**TREE DIAGRAM 4.3
PLANNING SECTION IN ICS**



4.4.1 Major Functions of Incident Commander

The general functions of the Incident Commander is as follows:

- To create and integrate communication flow during emergency period
- To manage incident scene, and report through integrated and coordinated command plan

- To facilitate procedures and protocols according to ESF Departments within District as well as State and Central Government.
- To put the communication system in place to receive, record, acknowledge incoming and out going information of any form during the disaster
- To manage resources as per their availability such as– distribution of relief material with ESF agencies required during emergency etc
- Monitoring functional areas during and post disaster phase

Besides these general functions, the Incident Commander has to perform certain specific functions. They are:

1. Size up the situation
2. Determine if human life is at immediate risk
3. Establish immediate objectives
4. Determine if there are enough and right kind of resources on site and/or ordered
5. Develop immediate action plan
6. Establish an initial organization
7. Review and modify objectives and adjust the action plan as necessary

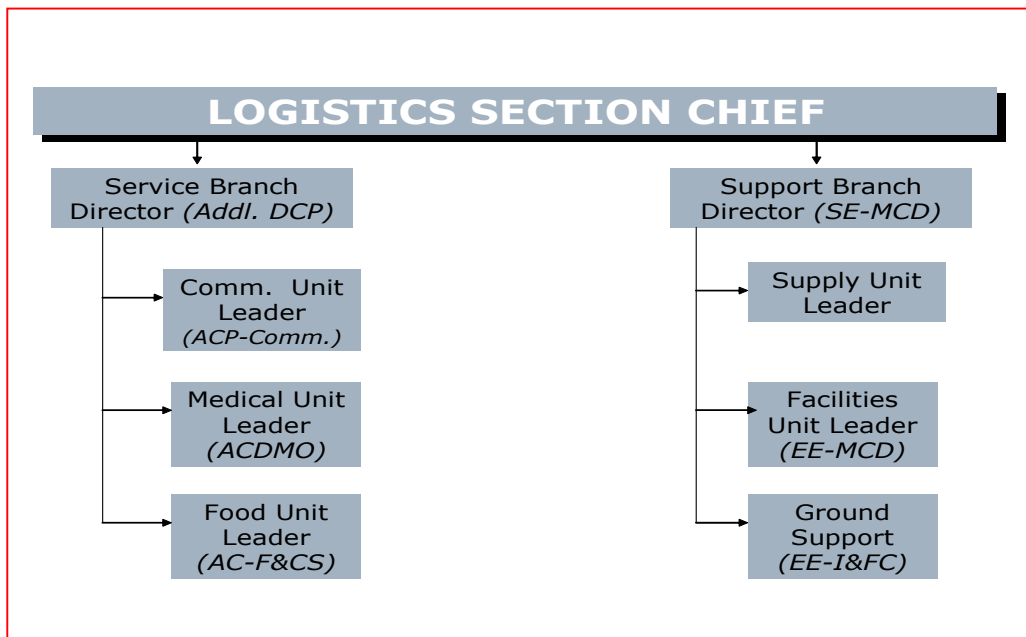
4.4.2 Major Functions of Operation Section Chief

- Responsible for management of all operations directly applicable to primary mission
- Activates and supervises organization elements in accordance with the Incident Action Plan and directs its execution
- Determine need and request additional resources
- Review suggested list of resources to be rebased and initiate recommendation for release of resources
- Report Information about special activities, events or occurrences to Incident Commander
- Maintain Unit / Activity details

4.4.3 Major Functions of Planning Section Chief

- Collection, evaluation, dissemination and use of information about the development of incident and status of resources. Information is needed to
 - Understand the current situation
 - Prepare alternative strategies and control of operations
- Supervise preparation of Immediate Action Plan (IAP)
- Provide input to IC and Operation Chief in preparation of IAP
- Reassign of service personnel already on site to other positions as appropriate
- Determine need for any specialized resources in support of the incident

TREE DIAGRAM 4.4 LOGISTIC SECTION IN ICS



- Establish information requirements and reporting schedules for Planning Section Unit (e.g. Resources, Situation Unit).
- Compile and display incident status information
- Oversee preparation and implementation of Incident Demobilization Plan.
- Incorporate Plans (e.g. Traffic, Medical, Site Safety, and Communication) into IAP. Maintain Unit / Activity details.
- Other Functions include, briefing on situation and resource status, setting objectives, establishing division boundaries, identifying group assignments, specifying tactics/safety for each division, specifying resources needed by division, specifying operations facilities and reporting locations – plot on map and placing resource and personnel order

4.4.4 Major Functions of Logistic Section Chief

The logistic section chief is responsible for providing facilities, services and materials in support of incident. Participants in development and implementation of IAP and activates and supervise Logistics Section.

- Assign work locations and tasks to section personnel
- Identify service and support requirements for planned and expected operations
- Coordinate and process requests for additional resources
- Provide input to / review communication plan, traffic plan, medical plan etc
- Recommend release of unit resources
- Maintain Unit/ Activity details

4.4.5 Major Functions of Finance Section Chief

The Finance section is basically of the administration and managing finance. The major roles of this section includes managing

1. Incident Command Post
2. Staging Areas
3. Base
4. Camps

- The Finance /Administration Section Chief has to be given the incident facilities as

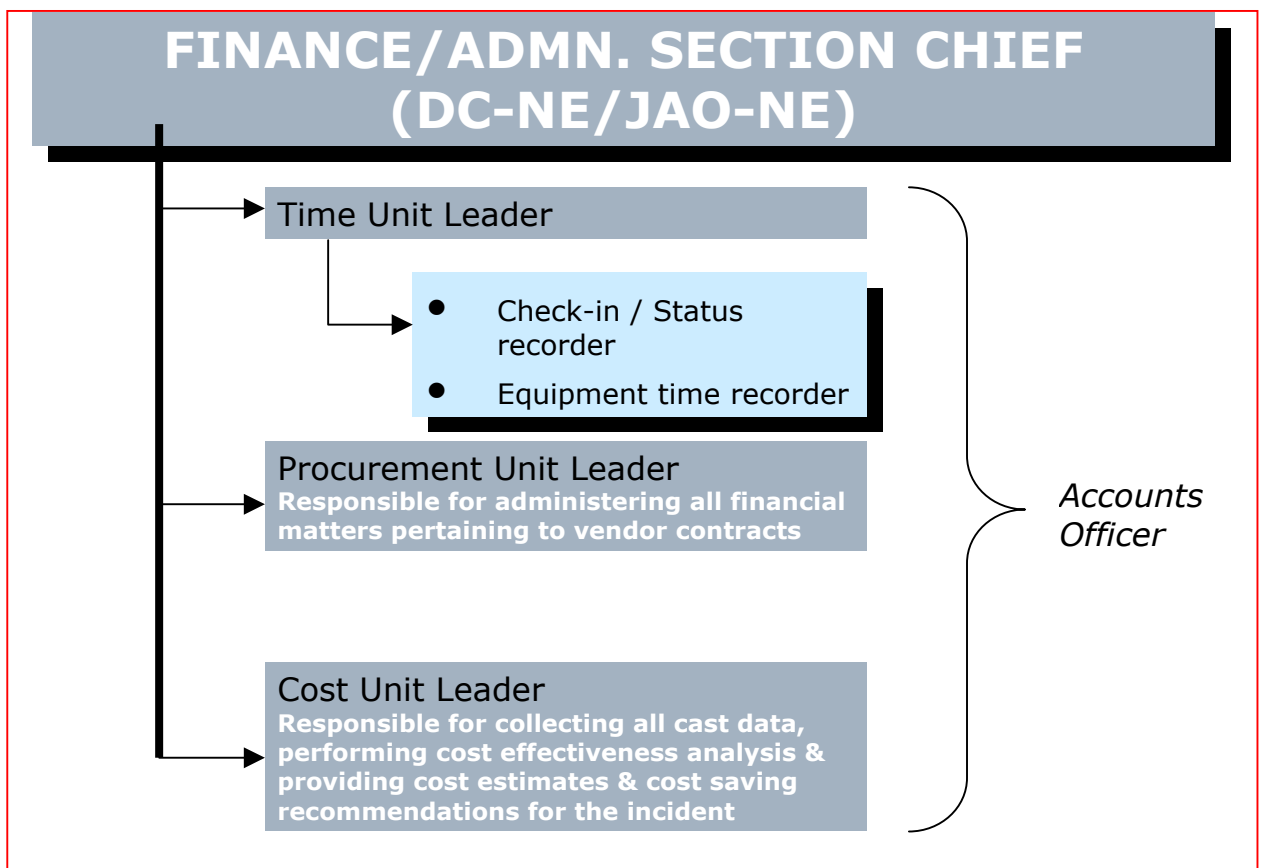
Staging Areas: i.e. temporary location where personnel and equipment are kept while waiting assignment

- Shall be located within 5 min travel time to the area of incident.
- To be set up to meet specific functional needs
- Shall include temporary feeding and sanitation facilities

Advantage of using staging areas:

- Provide locations for immediately available resources to await assignment
- Provide for greater accountability by having available personnel and resources in one safe location

**TREE DIAGRAM 4.5
FINANCE/ADMINISTRATION SECTION IN ICS**



- Minimize excessive communication of resources calling for assignment
- Allow IC/OPS to properly plan for resources use and allow for contingencies

Base:

- All primary services and support activities for the incident are located and performed at the base (one for each incident)
- Logistics section will be located at the base
- All uncommitted equipment & personnel support operations are located here
- Managed by Base Manager (within facilities units) in logistic sections

Camp:

- Temporary locations within general incident area which are equipped and staffed to provide sleeping, food, water and sanitary services to incident personnel
- Camps are separate facilities – not located at the base.

4.4.6 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.

District North East has designated three OEOCs, which are located in Shahadra Fire Station Complex, Seemapuri SDM Office Complex and Seelampur Police Station Complex. These strategic locations will help to cover operations in a calamity in the district in maximum five minutes time.

The concerned SDM will be the Commander-in-chief at this level and would be 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.

4.5 EMERGENCY SUPPORT FUNCTIONS

This is an additional feature in the new mechanism of disaster management. A concerted effort of various agencies is required to manage a disaster. Usually the agencies are able to perform the required function, but lack of proper coordination leaves them under-utilized. To avoid this type of problem, a new mechanism called Emergency Support Functions (ESFs) are formulated in North East District.

**TABLE 4.1
EMERGENCY SUPPORT FUNCTIONS IN NE DELHI**

ESF	FUNCTION	NODAL AGENCY	SUPPORTING AGENCIES
ESF-1	Communication	MTNL	NIC, Police/Revenue Wireless, HAM Reps, Private telecom/ Mobile operators
ESF-2	Evacuation	DC (NE)	Police, DFS, Civil Defence, NCC, Army
ESF-3	Search and Rescue	DFS	Police, Civil Defense, ,NCC, Army Department of Health
ESF-4	Law and Order	Police	Home Guards, Civil Defense, Army, CPMF
ESF-5	Medical Response & Trauma Counseling	CDMO	CATS, DHS, Indian Red Cross, Civil Defense, NSS
ESF-6	Water Supply	DJB	MCD, CGWC, CWC, Irrigation and Flood Control, Delhi Jal Board
ESF7	Relief	F & CS	Department of Revenue, Indian Red Cross, NGOs
ESF8	Debris and Road Clearance	MCD	PWD, DJB, DDA, DMRC
ESF9	Help lines, Warning dissem	DC (NE)	NIC/NGO Reps
ESF10	Electricity	BSES	TRANSCO, DERC
ESF11	Transport	Sec. Transport/ DTC	DMRC, Northern Railways, Civil Aviation, PWD, MCD

The basic structure of the ESF depends up on the functions they are supposed to perform. Altogether there are 11 ESFs in district North East Each ESF is led by the nodal department in the district and assisted by the other parallel civic bodies.

4.6 DISASTER MANAGEMENT TEAMS

Each ESF should be well prepared to set up its coordination desks in all three Onsite EOCs as well as in the District EOC at the time of disaster. With this intention, they have to designate a nodal officer and an alternate nodal officer with specific responsibility. Besides they have to constitute a Head Quarter Team as well as Quick Response Teams (QRTs) and minimum three Field Response Teams (FRTs) with at least five members each.

The name and address of the team members shall be updated time to time with latest contact number. It is the function of the Working Group - III for plan review and updation, to coordinate the disaster management teams. The supporting agencies will directly report to the nodal agency and the nodal agency will report to the Incident Commander regarding its functions.

CHAPTER-5

DISASTER MITIGATION PLAN

A better disaster management with minimum vulnerability is possible only by means of preparedness and mitigation measures. Maximum the disaster preparedness, minimum the vulnerability. Neither a disaster can be prevented nor diverted to any other place. The only possible thing is to minimize the effect.

The changing concept of disaster management has taken its birth in mere hypothesis. Today there is a paradigm shift in the approach to disaster management from a culture of relief and rehabilitation to that of preparedness and mitigation. In District North East, there shall be two approaches in disaster mitigation viz. structural mitigation and non-structural mitigation.

5.1 NON-STRUCTURAL MITIGATION PLAN

Delhi lies in the Gangetic Plain and *de facto* the eastern part of Delhi is considered as the worst for disasters like earthquake, flood and fire. If the entire city falls in Zone IV, informally we can say that the East Delhi is in Zone V, which indicates the District, as at high risk to earthquake. The state is prone to flood from river Yamuna and the consequence of flood becomes misery to the eastern population especially. In addition to this, fire is a major concern for the District as fire incidents have risen steeply in the last couple of decades. The vulnerability of the district increases in fire accidents since most of the JJ colonies and slums are thickly populated.

The non structural mitigation is basically framed in such a way that the whole population of the district will be sensitized on disaster management and their capacity is developed to cope up with a hazardous situation. District north east has specific plan for non-structural mitigation measures which is an ongoing process in various spheres of life.

5.1.1 Preparedness Methodology

Instead of waiting for a disaster to occur and then to manage it, this concept envisages to make people part of the management process. The plan contains a series of measures for preparedness in schools, colleges, hospitals, and all other vital institutions and ultimately the community itself. In a disaster management cycle, preparedness shall be the first step. People of a given area have to be guided to prepare their own coping mechanism. For this the district shall plan various activities and reach out to the local level. The DDMC shall suggest apt and proper methodology for preparedness on regular basis.

5.1.2 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 including rickshaw pullers. Awareness on multi hazards and dos and don'ts to solve it are most important 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 North East Delhi.
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 basics of self defence 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, Ministry of Education, Ministry of Disaster Management, Delhi Police, GTB Hospital, Delhi 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 and loud speaker announcements
- Group meetings of RWAs and other logical units
- Wall painting in the communities
- Distribution of reading materials to the general public
- Distribution of posters and other Information Education and Communication (IEC) materials to children and community people
- Street plays, documentaries and films on the subject
- Use of electronic media, especially cable channels
- Quiz-painting competitions, special types of books, etc for students
- Any other means the DDMC feels apt and proper

5.1.3 Training and Capacity Building

A series of training programmes shall be organized for specialized groups like, district DMTs, sub division and community level office bearers, teachers and principals, doctors and engineers, architects and masons and builders and contractors etc. All walks of people shall be trained. This can even be on construction of buildings and other structures earth quake resistant.

- District northeast shall identify sensitization as one of the best tools to create awareness programme and preparation of Community Based Disaster Management planning. In this respect the DC NE shall organize a

series of programmes for the community people, Resident Welfare Organizations and NGOs.

- There are organizations like Civil Defence, NYK, NCC, NSS etc, which have thousands of volunteers from each nook and corners of the district. The district must train their volunteers and the wardens of these bodies in the district, thus people from various corners will be trained and sensitized in disaster management and this can make a magnifying result.
- For better sustainability of disaster management, the DDMC shall think of training CD & HG, NYK, NCC and NSS volunteers at the cost of the district administration and they shall be given certificate of training, identity cards as disaster managers. The DDMC can take appropriate decision for paying any honorariums for their services.
- Training programmes shall be organized with RWAs and NGOs in the district or they shall be funded for organizing such programmes. Corporate sponsors shall be contacted to hold such massive training programmes.

5.1.4 Disaster Management Planning

It is a known fact that the entire state of Delhi falls under Zone IV; in which the East Delhi is highly prone to multi hazards like earthquake. In addition, fire is a major concern for the District as fire incidents have risen steeply in the last couple of decades. The vulnerability of the district increases in fire accidents since most of the JJ clusters and slums are thickly populated

The first responder of any disaster anywhere is none other than the local people who are the victims too. Once a disaster has been occurred, many agencies like NGOs, Military and Para Military Agencies as well as the Government Agencies approach the area. But it takes time to start rescue and relief operations by these agencies due to poor accessibility and approachability to the disaster site and ignorance to the geographical situation of the affected area. Taking all these in to stoke, the district shall organize various planning exercises with the local bodies. In North East District, RWAs are the prominent civil society organizations under the Bhagidhari scheme. Each pocket and block has at least one RWA or Community Development Organizations. The strategy of planning shall be as follows:

1. The territory of each RWA can be taken as logical unit for planning
2. Where there is no RWA, similar local bodies or NGOs can be taken as logical units
3. Where there is more than one RWA the Registered RWA/first formed RWA/that, which has more public coverage and support, shall be taken in to consideration.
4. Every school in the district, irrespective of size, shall be a logical unit
5. Every Hospital with more than 10 bed shall have Disaster management plans
6. All Cinema Halls, Clubs, religious centers etc where gatherings are possible, shall have Disaster management plans

7. Every Government office/building/department shall have separate disaster management plans
8. Every Merchant Traders Associations (MTA), shopping centers and district centers
9. All industries in the district, irrespective of size and nature.

The predominant objectives of the initiative shall be:

1. To create awareness on disasters and disaster management among community leaders and general public.
2. To prepare Disaster Management plan for each logical unit with Hazard and Resource Maps.
3. To form Disaster Management Committees (DMC) and Task Forces within the logical unit, to manage disasters and train them specifically.
4. To exercise Mock Drills in each Community in a regular interval of time including evacuation exercises.

Each logical unit shall collect the template/modal plan document from the EOC at the district administration and after preparation a copy of the same shall be submitted to the EOC and the other shall be with the logical unit. This plan document shall be updated at least bi annually and the update information shall be given to the EOC in writing. The district EOC shall help the logical unit in conducting the planning exercises as and when they request the same.

5.1.5 Disaster Resource Inventory

In a scenario of total damage due to disasters like earthquake or tornado, all communication system disrupts and disaster managers become armless in fighting the calamity. To overcome such obstacle, Government of India has developed disaster management portals which facilitate the disaster managers and administrators to track down resource stocks in the country or at least in the neighboring area. This Website, called www.idrn.gov.nic.in, basically intended to gather data from the government resources. Data are collected from local units and line departments and uploaded by the District Administration after verification and scrutiny.

Each government department in the district shall take part in updating this portal regularly. They shall give information on fresh procurement of equipments, manpower and technologies to the Emergency Operation Centre, North East Delhi in the prescribed format at least biannually.

5.1.6 Enforcing Existing Codes and Laws

Lists of codes are already in place to monitor the construction practices in the district. Bureau of India Standards, national Building codes of India and subsequent amendments in various acts provides sufficient legal protection to the enforcing agencies for safe construction practices. In District North East, the major government bodies undertaking construction and grant permission to the private players' viz. MCD, PWD,

DDA and Irrigation and Flood Control Department shall ensure that structural safety measures are followed well. In District North East the following general structural safety codes shall be followed strictly:

1. IS: 456:2000 “Code of Practice for Plain and Reinforce Concrete”
2. IS: 800-1984 “Code of Practice for General Construction in Steel”
3. IS: 801-1975 “Code of Practice for Use of Cold Formed Light Gauge Steel Structural members in General Building Construction”
4. IS: 875 (Part-2): 1987- “Design Loads (other than Earth Quake) for Building and Structures, Part 2 Imposed Loads.
5. IS: 875 (Part-3): 1987- “Design Loads (other than Earth Quake) for Building and Structures, Part 3 Wind Loads.
6. IS: 875 (Part-4): 1987- “Design Loads (other than Earth Quake) for Building and Structures, Part 4 Snow Loads.
7. IS: 875 (Part-5): 1987- “Design Loads (other than Earth Quake) for Building and Structures, Part 5 Special Loads and Load Combination.
8. IS: 883:1966 “Code of Practice for Design of Structural Timber in Building”
9. IS 1904:1987 “Code of Practice for Structural Safety of Buildings: Foundation”
10. IS: 1905:1987 “Code of Practice for Structural Safety of Buildings: Masonry Walls
11. IS: 2911 (Part 1) section 1: 1979 “Code of Practice for Design and Construction of Pile Foundation Section 1
 - Part 1: Section 2 Based Cast-in-situ Piles
 - Part 1: Section 3 Driven Pre Cast Concrete Piles
 - Part 1: Section 4 Based Pre Cast Concrete Piles
 - Part 2: Timber Piles
 - Part 3: Under Reamed Piles
 - Part 4: Load Test on Piles

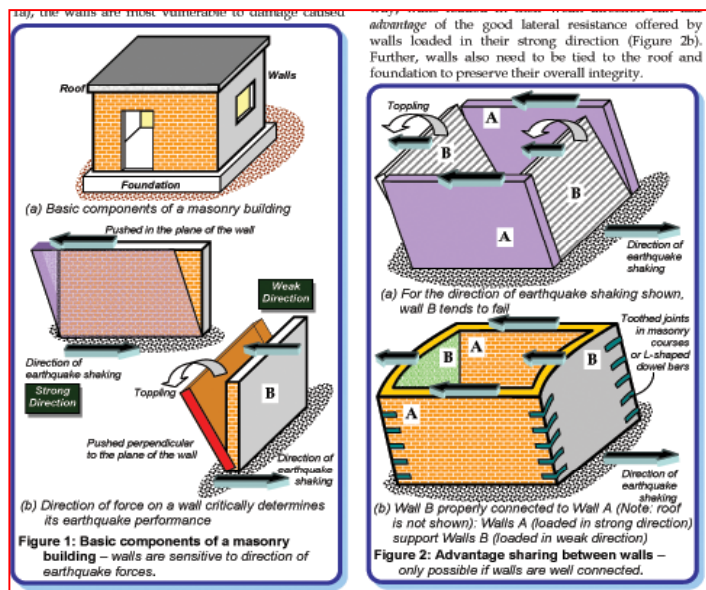
Besides the DDMC shall take appropriate decisions to enforce Codes for Earth Quake Protection, Wind Storm protection, etc

5.2 STRUCTURAL MITIGATION MEASURES

It is immensely pivotal for the planning community to respond towards disaster management positively. The Third Master Plan for Delhi – 2021, which is under preparation, should clearly come out with provisions prescribed in the amended legislations related to disaster management. Urban disaster management is intimately connected to the wholesome process of urban development and therefore needs a sincere incorporation in the development planning itself.

The industrial relocation/location, unauthorized-regularization issue, slumming, over densification and continuous influx of population to Delhi are some of the open concerns and that besides a planning challenge it is a concern for disaster management.

The district shall take steps for structural mitigation of disaster management. The departments that are associated with development of residential and commercial plots shall strict the NOC norms. The Building codes shall be strictly enforced in the district. Only seismically oriented engineers, contractors and masons shall be given certificates for multi story constructions and real estates. Simultaneously retrofitting is to be promoted with the expert advice. The possible two structural measures for disaster protection are Retrofitting of the existing building and Earth Quake Resistant new construction.



5.2.1 Retrofitting

For an existing building, Retrofitting or Seismic Strengthening is the only solution to make it disaster resistant. In district North East, all lifeline buildings such as major hospitals, Schools with large space for storage, district administration offices and other vital installations shall be retrofitted in the first phase. In the second phase all other significant buildings shall be given priority for seismic strengthening. Before carrying retrofitting, a panel of experts shall be approached for assessing the structure and to suggest the type of retrofitting required.

5.2.2 Earth Quake Resistant Construction

Promotion of Earth quake Resistant construction mainly includes construction safety, quality control and inspection. In the previous decades, there were no specific guidelines on EQ resistant constructions and seismic strengthening. Due to the very fact, most of the buildings till 1990s were built without any safety measures. But in the present scenario, there are building byelaws and guidelines. Civic Bodies like MCD, DDA, and PWD in the district shall try to enforce these laws.

All construction except load bearing buildings up to 3 storeys shall be carried out under the supervision of the Construction Engineer on Record or Construction Management Agency on Record for various seismic zones. They shall be given a certificate based on the norms on completion of the construction.

All the constructions for high-rise buildings higher than seven story's, public buildings, and special structures shall be carried out under quality inspection programme prepared and implemented under the Quality Auditor on Record or Quality auditor agency on Record in Seismic Zones IV and V. DDMC North East shall look in to this aspect and

ensure that such prerequisites are completed and observed by the concerned agencies and construction engineers.

Illegal constructions, Encroachments, unapproved additions, alterations etc of residential buildings and conversion of residential building in to commercial purpose etc shall be checked by the District Administration with strict measures. These unauthorized activities may lead to disasters in that particular area.

CHAPTER-6

ACTION (RESPONSE) PLAN FOR EMERGENCY SUPPORT FUNCTIONS

“The disaster scenario offers a range of opportunities for affected communities to respond to the crisis, how community responds to a disaster and post disaster aid sets the tone for the transition from disaster to development”. After earthquake in Latur, people of that area started to monitor construction works, retrofitting of houses and behaved like “community construction watch dogs” (IDR, Oxford, 2000).

Disaster management is a multi faceted discipline that needs different mechanisms with diverse methodology. The action plan contains two approaches; 1) short term plan and 2) long term response plans. The district administration-DDMC NE- has to take pre-action on these two approaches to tackle a disaster scenario.

6.1 SHORT TERM RESPONSE PLAN

Short-term response plan contains the actions to be taken immediately after a disaster. Once an information has been reached the district EOC or any of the Disaster Managers in the district either from authentic or unauthentic sources, it has to be verified soon for authenticity. Once the information is found correct, it has to be reported to the Incident Commander via fast communication system. The Incident Commander shall take the following actions.

1. Disseminate warning/alert to the potential victims
2. Disseminate information to vertical and horizontal EOCs
3. Disseminate information to vertical and horizontal Administrators and DMTs
4. Declare Disaster based on the severity/vulnerability

6.1.1 Rescue Operations

Immediately after a disaster the Deputy Commissioner North East Delhi shall act as the District magistrate and incident commander and take over disaster management. He/she shall coordinate the rescue operations with the help of the Working Group for relief and rehabilitation and the Emergency Support Functions. Along with the rescue operations the Incident Commander shall do the following measures:

1. Activate the Incident Command System
2. Call meeting of Crisis Management Group
3. Coordinate the ESFs in disaster management
4. Set up Site/Onsite Operation Centers and activate relief camps.
5. Collect preliminary assessment report from the onsite EOCs
6. Activate the pre-contract vendors and collect relief materials for distribution
7. Brief the situation to the Higher authority as well as to the press/media people

8. Ensure basic logistic arrangements for disaster managers and the Operation Centers.
9. Mobilize resources/ call assistance from various stakeholders.

Besides there are large number of activities to be under taken by the Incident Commander in consultation with the Crisis Management Group which are listed in the Disaster Management Act.

6.1.2 Relief Operations

Once the rescue phase is over, the district administration shall provide immediate relief assistance either in cash or in kind to the victims of the disaster. The DDMC North East shall enter in to pre-contract well in advance and procure materials required for life saving. The office of Deputy Commissioner is responsible for providing relief to the victims of natural & man made disasters like fire, flood, drought, earthquakes, riots, terrorist attacks, accidents etc. The relief is provided as per the following scale fixed by the government:

Communal Riots

Death Case	Rs. 1 lakh
Permanent Incapacitation	Rs. 50,000/-

Bomb Blasts and Riots

Death	Rs. 1 lakh in each case
Permanent incapacitation	Rs. 50,000/- each case
Serious Injury	Rs. 10,000/- each case
Minor injury	Rs. 3,000/- each case

Fire and Other Accidents

Death (Major)	Rs.50,000/- each case
Death (Minor)	Rs.25,000/- each case
Serious injury	Rs.20,000/-each case
Minor injury	Rs.500/- each case.

Loss of property

Animals	Rs.1,000/- each
Rickshaw etc.	Rs.500/- each

Damage to residential unit (in riots)

Total damage	Rs.20,000/-
Substantial damage	Rs.10,000/-
Minor damage	Rs.2,000/-

Uninsured commercial property/commercial articles

50 % of the loss – up to a maximum of Rs. 50,000/-
Total damage to the Jhuggis - Rs.1, 000/-

6.1.3 Rehabilitation

In short term response rehabilitation is the final step. The incident Command System shall be deactivated as the rehabilitation phase is over. Thereafter the normal administration shall take up the remaining reconstruction works in the disaster-affected areas. These activities shall be performed by the Working Group for relief and rehabilitation under the direction of the DDMC.

6.2 LONG TERM RESPONSE PLAN

The long-term response plans are related with Recovery and Reconstruction activities on one side and institutionalizing disaster management in district administration on the other side. The former one is given in detail in the coming chapter. There are Standard Operation Procedures (SOPs) for the Emergency Support Functions. In long term measures the following actions shall be undertaken duly.

1. Constitution of Emergency Support Functions, Disaster Management Teams, Quick Response Teams, Field Response Teams
2. Refresher trainings for all such teams in a regular interval of time and exercise of Mock Drills
3. Continuous awareness/sensitization programmes for the stakeholders and the general Public.
4. Getting pre-contract with vendors and merchant establishments to procure relief materials in times of disaster

Most of the Line Departments in the District, Autonomous Bodies and Organizations are part of the Emergency Support Functions. The action plans for ESFs for disaster management are discussed below. The DDMC shall ensure that these actions plans are updated bi annually and practiced through mock drills in the district.

6.2.1 Action Plan for Police-North East Delhi

Response Activation:

1. The Nodal Officer from Delhi Police will activate the Quick Response teams.
2. The Quick Response Teams will be deployed at the Onsite EOCs.
3. As per the information from IMTs, more officers may be sent at site.

Actions to be taken:

1. If felt, cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.
2. Quick assessment of law and order situation in affected areas.
3. Prepare updates on the law and order situation every 2-3 hours and brief the Incident Commander.
4. Arrangements for controlling situations like rioting and looting.
5. QRTs will guard property and valuables in affected areas.
6. Control and monitor traffic movement.
7. QRTs will provide diversion of traffic on alternate routes as and when it is necessary.

8. The QRTs will also provide information about traffic flow along various corridors, especially heavy traffic or congested roads.
9. QRTs will communicate to police control rooms, details on the field activities including deployment and reinforcement of staff and resources and communicate nature of additional requirements.

Equipments to be brought:

1. Search Lights
2. Electric Generators
3. Crane- Heavy Duty, Fork Type
4. Recovery Van
5. Stretchers
6. First Aid Kits
7. Vehicles: Mini Buses, heavy truck, light ambulance vans, mobilization trucks
8. Water tanker.
9. Any other

6.2.2 Action Plan for Delhi Fire Service

Response Activation:

1. As soon as the Nodal Officer gets information about the disaster, he should reach the EOC.
2. The Quick Response Teams will be deployed at the Onsite EOCs.
3. As per the information from IMT, more officers may be sent at site.

Actions to be taken:

1. At the site, QRTs should contact the local volunteers and local people to gather information about vulnerable areas so that search and rescue operation can take place through a proper channel in heavily dense areas, large buildings, community centers, hotels, hospitals, public buildings and any other area having large gathering.
2. Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
3. The injured people should be taken out of damaged buildings etc with utmost care.
4. Special care to women and children groups should be given as they are expected to be more affected and helpless incase of any emergency situation
5. Coordinate with the Transportation ESF if a large number of medical professionals need to be sent to the affected sites and/or a large number of victims need to be transported to health facilities.

Equipments to be brought:

- Water Tenders
- Ladder Platforms
- Haz Mat Van
- Concrete Cutter

- Other equipments necessary for Search and Rescue Operations, depends upon need.

6.2.3 Action Plan for Civil Defence & Home Guards

Response Activation:

1. As soon as the Nodal Officer gets information about the disaster, reach the EOC.
2. The Quick Response Teams will be deployed at the three sites.
3. As per the information received from IMT, more officers may be sent at site.

Actions to be taken:

1. Support and coordinate with the Incident Command System of North East Delhi for Law and Order, Search and Rescue and Medical Response and Trauma Counseling functions.
2. Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
3. The injured people should be taken out of damaged buildings etc with utmost care.
4. Special care to women and children groups should be given as they are expected to be more affected and helpless incase of any emergency situation.
5. In case of fire, the CD team members should do fire fighting.
6. First Aid should be provided along with the members of ESF on Medical Response
7. Demonstrate Search and Rescue.

Equipments to be brought:

1. Extension Ladders
2. Sledge Hammers
3. Lifting Tackles
4. Stretchers
5. Tarpaulins
6. Any other

6.2.4 Action Plan for TRANSCO-North East Delhi

Response Activation:

1. Get the power ESF activated.
2. Nodal Officer of primary agency will call nodal officers of supporting agencies (BSES & NDPL).
3. As per the information from IMTs, the nodal officer of primary agency will activate the State Quick Response Teams at field level.
4. The Quick response teams will be deployed at the affected site.

Actions to be taken:

1. Team Leader will dispatch emergency repair teams equipped with tools, tents etc
2. The main incoming supply is from BTPS through 220 kV Noida - Gazipur Circuit. If there is outage of circuit, load should be diverted on 66 kV network

depending upon the loading conditions of 220/66 kV 100 MVA Transformer No.1 and 2 at Patpatganj.

3. Coordination with BSES for any local failures.

Equipments to be brought:

All Equipments required to restore failure in network at stations should be available.

6.2.5 Action Plan for BSES-North East Delhi

Response Activation:

1. As soon as the Nodal Officer gets information about the disaster reach the EOC.
2. The Quick Response Teams will be deployed at the three sites.
3. As per the information received from IMT, more officers may be sent at site.

Actions to be taken:

1. TL will dispatch emergency repair teams equipped with tools, tents and food.
2. Assist hospitals in establishing an emergency supply by assembling generators and other emergency equipments, if necessary.
3. The members of QRTs will establish temporary electricity supplies for other key public and private water systems.
4. The members of QRTs will make arrangements for temporary electricity supplies for transit camps, feeding centers, relief camps and Onsite EOC, District EOC and on access roads to the same.
5. The members of QRTs will establish temporary electricity supplies for relief material go downs.
6. Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
7. Report about all the activities to the head office.

Equipments

All material required for restoration of supply available with the company in Field Offices/Stores.

6.2.6 Action Plan for MTNL-North East Delhi

Goal: The MTNL is primarily responsible for restoration of communication facilities. The MTNL should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at state level in response efforts.

Response Activation:

- Soon after receiving information about disaster (from any source), Nodal Officer will contact State/District Emergency Operations Centre.
- The Nodal Officer from MTNL will activate the Quick Response Teams
- The Quick Response Teams will be deployed at the three incident sites.
- As per the information from Incident Management Team, more teams may be deployed at affected sites.

Actions to be taken:

- Communicate situation to support agencies (Tata, Airtel, Hutch, Idea, NIC, and HAM etc.) and request for detailed information on the status of equipment and infrastructure damage in the affected area(s).
- Launch assessment mission to understand better the nature of damage to telecom services and network.
- Ensure possible arrangements for establishing reliable and appropriate network.
- Work out a plan of action for private telecom companies and convene a meeting to discuss and finalize the modalities.
- Compile and communicate Action Taken Report to District and State Authorities.
- New numbers and details of contact persons to be communicated to Emergency Operations Centre (District/State).
- Mobile exchanges should be deployed as alternative mode of communication for authorities and general public.
- Establish telephone facilities for the public and information on this should be announced through media.
- Monitor the situation and arrange for emergency staff required to operate systems established.
- Inform district/state authorities on debris clearance of the work required
- Initiate temporary rehabilitation work required.
- Launch rehabilitation work and arrange for repairs and relocation, if required.
- Make available various types of equipment/material/ technical manpower and services, if requested.

Equipments to be brought:

- Emergency Communication Van with GSM and CDMA services
- Other necessary equipments to restore communication network / set-up alternative emergency communication

6.2.7 Action Plan for Private Mobile Operators

Goal: The MTNL is primarily responsible for restoration of communication facilities. The private operators should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at state level in response efforts.

Response Activation:

- Soon after receiving information about the calamity (from any source), Nodal Officer will contact Team Leader from MTNL.
- The Nodal Officer will activate the Quick Response Teams
- The Quick Response Teams will be deployed at the three incident sites.
- As per the information from Incident Management Team, more teams may be deployed at affected sites.

Actions to be taken:

- Communicate situation to MTNL and arrange for detailed information on the status of equipment and infrastructure damage in the affected area(s).
- Launch assessment mission to understand better the nature of damage to telecom services and network.

- Ensure possible arrangements for establishing reliable and appropriate network.
- Work out a plan of action for restoration and convene a meeting to discuss and finalize the modalities.
- Compile and communicate Action Taken Report to MTNL.
- New numbers and details of contact persons to be communicated to Emergency Operations Centre (District/State).
- Mobile exchanges should be deployed as alternative mode of communication for authorities and general public.
- Establish telephone facilities for the public and information on this should be announced through media.
- Monitor the situation and arrange for emergency staff required to operate systems established.
- Inform district/state authorities on debris clearance of the work required
- Initiate temporary rehabilitation work required.
- Launch rehabilitation work and arrange for repairs and relocation, if required.
- Make available various types of equipment/material/ technical manpower and services, if requested.

Equipments to be brought:

- Emergency Communication Van with GSM and CDMA services
- Other necessary equipments to restore communication network / set-up alternative emergency communication

6.2.8 Action plan for HAM radio operators

1. Inform other HAM clubs, individuals from other parts of Delhi
2. HAM radio operators, through their association, call active members to set up a HAM communication system
3. Coordination mechanisms to be shared with critical authorities.
4. Setup alternative communication network till the main communication linkages restored.

6.2.9 Action Plan for MCD

Actions to be taken

- MCD will bring debris of heavy RCC structures (having beams/columns) and put dummies beneath the debris. This will facilitate demonstration of search & rescue operations. Soon after search and rescue team leave the site, MCD will mobilize equipments for debris clearance
- MCD will assume main role in Equipment support, debris and road clearance, on receiving the intimation of the disaster from State EOC.
- MCD will coordinate with the supporting agency's officers to mobilize equipments from the ware houses
- The respective supporting agencies will contact their respective personal to move the equipments to central warehouse
- The equipments like JCB, concrete cutters identified as per the need will be transported to the site.

- On receiving intimation on the intensity of the damages of structure, the nodal officer will make an assessment on of the damages of roads and structures reported at the site and surrounding areas
- The Supporting Agencies nodal officers will call for personal to immediately start debris clearance operation to enable movement to the affected site.
- A review of the current situation is taken up by the nodal agency to update the support agencies to delegate their respective personnel to take precautionary measure to plan de-routes for the transportation ESF's to be operational
- All supporting agencies will inspect the road/rail network and structures within the disaster site and surrounding.
- MCD will also ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.
- ◆ Assessment of damage (locations, no. of structures damaged, severity of damage)
- ◆ The QRTs will be deployed at the affected site.
- ◆ Enlisting the types of equipment as compiled from resource inventory required for conducting the debris clearance
- ◆ The QRTs will report the situation and the progress in response activities to the respective EOCs.
- ◆ Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- ◆ Undertake repair of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.
- Ensure a critical number of medical professionals to reach the site including specialists from outside the state.
- If temporary living arrangements are being made from the affected populace, the MCD must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- It should also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to disaster victims.
- In case of orthopedic care required in disasters like earthquakes the immediate response would have to be complimented by a follow up treatment schedule for a majority of the patients in/ near their place of residence.
- MCD should ensure setting up of temporary information centers at MCD hospitals with the help of ESF on help lines and warning dissemination.
- MCD will coordinate, direct, and integrate state level response to provide Equipments support, relief camps establishment, and sanitation health assistances.
- Mobilizes different modes of transportation e.g. trucks, etc to be put on stand-by.
- Assist timely re-establishment of the critical transportation links.
- Establish temporary electricity supplies for relief material go downs and relief camps.
- Compile an itemized assessment of damage, from reports made by various receiving centers and sub-centers.

Equipments to be brought:

1. JCB, concrete breakers, cranes, Grader, Bulldozers, Gas Cutter, Jack Hammer, Tipper, Folkanes, Dumper, Aeromatic Hammer for debris/road clearance, supporting rescue operations.
2. Vehicles (Trucks)
3. Earth movers, rescue equipments
4. Mobile medical vans
5. Other disaster management related equipments.

6.2.10 Action Plan For PWD

Actions to be taken

- The above agencies will bring debris of heavy RCC structures (having beams/columns) and put dummies beneath the debris. This will facilitate demonstration of search & rescue operations. Soon after search and rescue team leave the site, will mobilize equipments for debris clearance
- Assume role in Equipment support, debris and road clearance, on receiving the intimation of the disaster from State EOC/Nodal Officer of MCD.
- Coordinate with the MCD officers to mobilize equipments from the ware houses
- Contact respective personal to move the equipments to central warehouse
- The equipments like JCB, concrete cutters identified as per the need will be transported to the site.
- On receiving intimation on the intensity of the damages of structure, the nodal officer will make an assessment on of the damages of roads and structures reported at the site and surrounding areas
- The nodal officers will call for personal to immediately start debris clearance operation to enable movement to the affected site.
- A review of the current situation should be taken up by the nodal agency to update the support agencies to delegate their respective personnel to take precautionary measure to plan de-routes for the transportation ESF's to be operational
- All supporting agencies will inspect the road/rail network and structures within the disaster site and surrounding.
- Ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.
- ◆ Assessment of damage (locations, no. of structures damaged, severity of damage)
- ◆ The QRTs will be deployed at the affected site.
- ◆ Enlisting the types of equipment as compiled from resource inventory required for conducting the debris clearance
- ◆ The QRTs will report the situation and the progress in response activities to the respective EOCs.
- ◆ Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- ◆ Undertake repair of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.

- Ensure a critical number of medical professionals to reach the site including specialists from outside the state.
- If temporary living arrangements are being made from the affected populace, the agencies must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- Coordinate, direct, and integrate response to provide Equipments support, relief camps establishment, and sanitation health assistances.
- Mobilizes different modes of transportation eg. Trucks, etc to be put on stand-by.
- Assist timely re-establishment of the critical transportation links.
- Establish temporary electricity supplies for relief material go downs and relief camps.
- Compile an itemized assessment of damage, from reports made by various receiving centers and sub-centers.

Equipments to be brought

- JCB, concrete breakers, cranes, Grader, Bulldozers, Gas Cutter, Jack Hammer, Tipper, Folkanes, Dumper, Aeromatic Hammer for debris / road clearance, supporting rescue operations.
- Vehicles (Trucks), Earth movers, rescue equipments, Mobile medical vans
- Other disaster management related equipments.

6.2.11 Action Plan for Directorate of Health Services

Response Activation:

- Nodal Officer will call nodal officers of supporting agencies.
- In coordination with the transportation ESF, it will ensure a critical number of medical professionals to reach the sites including specialists.
- If temporary living arrangements are being made from the affected populace, must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- Also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to disaster victims.
- In case of orthopedic care required, immediate response would have to be complimented by a follow up treatment schedule for a majority of the patients' in/ near their place of residence.
- Trained professionals should be mobilized by psychosocial support.
- Ensure setting up of temporary information centers at hospitals with the help of ESF on help lines and warning dissemination.
- Coordinate, direct, and integrate state level response to provide medical and sanitation health assistances.

Actions to be taken:

- Ready all hospitals (including private hospitals) for managing large no. of casualties and severely injured population.
- Sufficient stock of required medicines, vaccines, drugs, plasters, syringes, etc.
- Provide systematic approach to patient care (Mass Casualty Management)
 - Triage done to determine who needs to be taken to a medical facility on a priority basis and who can be treated on-site. (CATS, DHS, CGHS)
 - First-aid provided as required (CATS, DFS, CD, Red Cross, St. Johns)
 - Patients Stabilized before transport (CATS, DHS)
 - Patients transported to nearest available medical facility having the required facilities (CATS, CD, St. Johns)
 - Trauma counseling provided to the victims and their relatives at the site and in the hospital
 - In the hospital emergency department, triage carried out again to prioritize treatment, and appropriate care provided
 - Maintain patient tracking system to keep record of all patients treated
 - Deploy mobile hospitals as needed
- Arrange for additional blood supply; organize blood donation camp for additional blood requirement.
- Provide for sending additional medical personnel equipped with food, bedding, and tents.
- Send vehicles and any additional medical equipment.
- QRTs will report the situation and the progress on action taken by the team to the respective EOCs
- QRT's Quickly assess type of injuries, no. of people affected, and possible medical needs
- QRTs will ensure timely response to the needs of the affected victims.
 - Establish health facility and treatment centers at disaster sites.
 - The district civil surgeon with district/State control room should coordinate the provision of medical services.
 - Procedures should be clarified between
 - Peripheral hospitals
 - Private hospitals
 - Blood banks
 - General hospitals and
 - Health services established at transit camps, relief camps and affected villages.
- QRTs should maintain check posts and surveillance at each railway junction, ST depots and all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

Equipments to be brought

1. Mobile medical vans (Clinics) with paramedical staff as well
2. Mobile radiology units, pathology test arrangements.
3. Vehicles for carrying severely injured
4. Stretchers, life saving drugs, blood etc.
5. Other resources required during emergency for setting up medical camps

6.2.12 Action Plan for CATS

Response Activation

1. Upon receipt of notification about disaster, nodal officer will activate quick response teams.
2. The quick response teams will be deployed at the three sites

Actions to be taken

1. Provide ambulance service.
2. Provide first aid at site
3. Alert hospitals to put their disaster management action plan into operation i.e. to evacuate wards, create additional bed facilities, arrangement for additional blood and medicines.
4. Transport casualty. If necessary contact Delhi transport corporation for providing buses from nearest depot.
5. Provide feedback to command posts on development.

6.2.13 Action Plan for Red Cross Society / St. John Ambulance Brigade

Response Activation

3. Upon receipt of notification about disaster, nodal officer will activate quick response teams.
4. The quick response teams will be deployed at the three sites

Actions to be taken

- Establish camps to provide first aid and minor medical services to affected populace.
- Mobilize stretchers
- Organize blood donation camps and encourage people to donate blood.
- Arrange for safe collection, storage, testing and supply of blood to needy populace.
- Provide ambulance service

6.2.14 Action Plan for Delhi Jal Board

Response Activation

5. Upon receipt of notification about disaster, DJB nodal officer will activate quick response teams.

6. The quick response teams will be deployed at the three sites

Actions to be taken

1. Quick assessment of water line damage and contamination.
2. Supply of water tankers to disaster affected communities.
3. Deploy response teams to repair and restore water supply lines that may be damaged after disaster.
4. Quick assessment of water contamination levels and taking steps to restore clean drinking water.
5. Provide information to IMT, district EOC and state EOC about extent of damage.

Equipments/Materials to be brought to site

1. Water tankers

6.2.15 Action Plan for Department of Irrigation and Flood Control

Response Activation

1. Team leader of ESF will activate Quick Response Team
2. QRTs will be deployed at all three sites

Actions to be taken

1. QRT to report situation and progress of action to the EOC
2. Coordinate with Team leader for water supply
3. Provide arrangements for transportation means across river Yamuna in case bridge network fails

6.2.16 Action Plan for Department of Food and Civil Supplies

Response Activation

1. Team Leader will activate ESF on receiving information of the disaster from State EOC
2. Team leader will inform Nodal Officers of support agencies about the event and ESF activation

Actions to be taken

1. Coordinate with ESFs related to transportation, debris and road clearance to ensure quality supply chain management and relief materials
2. QRTs to report to site of relief camps
3. QRTs responsible for management and distribution of food and relief items to affected victims
4. QRTs responsible for reporting progress of action taken to EOC
5. Preparing take-home food packets for families
6. Ensuring support to local administration

Equipments/Materials to be brought to site:

1. Food packets

6.2.17 Action Plan for Department Of Transport

Response Activation

1. Team Leader will activate ESF on receiving information of the disaster from State EOC
2. Team leader will inform Nodal Officers of support agencies about the event and ESF activation

Actions to be taken

1. Team leader communicates situation to support agencies and requests for detailed information on the status of transportation infrastructure in the affected area(s)

6.2.18 Action Plan for Delhi Metro Rail Corporation

Response Activation

7. Upon receipt of notification about disaster, nodal officer will activate quick response teams.
8. The quick response teams will be deployed at the three sites

Actions to be taken

1. The QRT will reach the nodal office as soon as they get instruction from ESF Team leader
2. QRTs to report to site once they receive instruction from nodal officer
3. QRTs will report situation and progress of action taken to the EOC
4. QRT will send a requirement schedule for different modes of transportation
5. Provide equipments available at disposal for operations requested by any other ESF

CHAPTER-07

STANDARD OPERATING PROCEDURES

Emergency Support functions (ESFs) are intended to help the Incident Commander, North East District at the time of emergency for restoring normal life. The ESF is an organized system of District level departments and agencies, which are to be worked under a structured pattern for response and recovery in accordance with the National Disaster Management Guidelines.

The Standard Operating Procedure (SOPs) for ESFs explains about the operations and responsibilities of the leading and supporting agencies that are to be involved in the ESF system. The document also outlines the purpose and scope for each function of operation that is to be followed by the respective ESF agencies when the Incident Commander activates the response plan during the emergency period.

The head of each primary department who is the Team Leader of each ESF and the nodal officers of the supporting agencies are responsible to be prepared for potential hazards that might impact the district severely. These departments/agencies have clearly identified roles and functions in accordance with the National Response Plan (NRP). They have been grouped in as ESFs as per their nature and type of assistance they can provide. When the team leaders of these ESFs are located in the EOC, they would function for the overall district response.

7.1 SOP FOR EMERGENCY SUPPORT FUNCTIONS

The major functions of the incident command system are summarized as follows. Nevertheless, they are to be released in cooperation of all the ESFs and participating agencies in disaster management. The Incident commander is given with full control and command over the entire teams in district level.

7.1.1 ESF 1 Communication

Background: The communication ESF is primarily responsible for restoration of communication facilities. The ESF on Communication should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at state level in response efforts.

Situation Assumptions

1. There would be a congestion in the network because of increased calls to control rooms due to panic created in the community.
2. The initial reports on damage may not give a clear picture of the extent of damage to communication network.
3. The affected site may cut off from the state control rooms and the officials on site and find difficulty in communicating to the District/State EOC.

Nodal agency: Mahanagar Telephone Nigam Limited (MTNL)

Supporting agencies: NIC, Police/Revenue Wireless, HAM Reps, and private telecom/mobile operators

SOPs for Nodal Agency:

- Team leader (TL) of Communication ESF will activate the ESF on receiving the intimation of occurrence of the disaster from the District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL would establish contact with the district EOC for First Information Report
- TL requests for reports from local ESF contact persons (this would be the local office of ESF Nodal Agency) to understand the current situation and action taken
- Based on information given by the supporting agencies, TL decides on the need to launch an assessment mission to estimate the extent of damage to telecom services and network as well as to come up with possible arrangements to establishing reliable and appropriate network.
- TL communicates situation to supporting agencies and also requests to provide details on the status of equipment and infrastructure in the affected area(s).
- TL informs the Incident Commander on the status of telecom services.
- TL works out a plan of action for private telecom companies and convenes a meeting of all ESF members to discuss and finalize the modalities.
- TL issues orders to establish systems and reports to District EOCs on the action taken. New phone numbers and details of contact persons would also be communicated. If required mobile exchanges would be deployed.(need explanation---mobile exchanges)
- TL gets the temporary telephone facilities established for the public. Prior information on this would be announced through media
- HAM radio operators would be informed about the current requirements and coordination mechanisms shared.
- TL monitors the situation and arranges emergency staff required to operate established systems.
- TL sends the District Quick Response team at the affected site with the required equipments and other resources.

SOPs for Quick Response Team on Communication

- The QRT (Quick Response Team) members will reach to the nodal office as soon as they will get instructions from the TL.
- Once the QRTs receive any intimation from the nodal officer to reach at the site they would rush to the site.
- At the emergency site QRT members will take stock of the situation from the IC and would also know about their counter parts.
- QRTs would assess the ground situation and would send sectoral report to the District ESF agency.

A sectoral report would contain following:

- An assessment of overall damage, listing specifically:
- Overhead route damage (in miles/kilometers).

- Cable damage (in yards/meters).
- Specific equipment damaged.
- Establish a temporary communication facility for use by the public
- Identify requirements of manpower, vehicles and other materials and equipments Give priority and concentrate on repairs and normalization of communication system at disaster-affected areas.
 - Begin restoration by removing and salvaging wires and poles from the roadways with the help of casual laborers.
 - Carry out temporary building repairs to establish a secured storage area for the equipments and salvaged materials.
 - Report all activities to head office
 - Begin restoration by removing and salvaging wires and poles from the roadways through recruited casual laborers.
 - Establish a secure storage area for incoming equipments and salvaged materials.

7.1.2 ESF 2 Evacuation

Background: The ESF on evacuation is primarily responsible for establishing evacuation plans, identification of fastest evacuation routes and alternate routes and coordinating evacuation logistics during field operations.

Situation Assumptions

- Most of the buildings would be damaged and would not remain serviceable.
- Many structures would be damaged and there would be an urgent need to evacuate.

Nodal agency: Department of Revenue

Supporting agencies: Police, DFS, Civil Defence, NCC, Army

SOPs for Nodal Agency:

- Team leader (TL) of Evacuation ESF would activate the ESF on receiving the warning of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
- TL will direct the QRTs to be deployed at the affected site.
- TL will gather information on availability of predefined evacuation routes.
- Where the predefined evacuation routes are not available, the nodal officer would coordinate through District EOC with other ESFs nodal officers and the support agencies about clearing of routes and identifying alternate routes.

SOPs for Quick Response Team on evacuation

- The QRT members will reach the nodal office as soon as they get instructions to do so from the TL.
- Once the quick response teams receive an order from the nodal officer for reaching the site they would rush to the site.
- On reaching at the site the QRT members will take stock of the situation from the Incident Management Team at the site and their counter parts.

- The quick response teams with the help of local task forces will start evacuating peoples to safe shelters or open areas.
- The QRT members should concentrate more on evacuation in areas that have been worst affected by the disasters.
- Reporting about all the activities to head office

7.1.3 ESF 3 Search and Rescue

Background: Search and Rescue operations are one of the primary activities taken up in a post disaster situation. The promptness in these operations can make a remarkable difference in the amount of loss of life and property.

Situation Assumptions

- Local community task forces will initiate search and rescue at residential level
- Spontaneous volunteers will require coordination
- Access to affected areas will be limited.
- Some sites may be accessible only through air routes only

Nodal Agency: Delhi Fire Service

Support agency: Police, Civil Defence, NCC, Army and Health Reps

SOPs for Nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick Response Team.
- Quick Assessment of the S& R operations through Aerial surveys
- Assessments of the specific skill sets and the other equipments required.
- Using IDRN network to check and map the availability of resources in and round the disaster site.

SOP for Quick Response Team on Search & Rescue

- ◆ Assessment of damage (locations, number. of structures damaged, severity of damage)
- ◆ The QRTs will be deployed at the affected site.
- ◆ Enlisting the types of equipment required for conducting the S&R
- ◆ QRTs will report the situation and the progress in response activities to the respective EOCs.

7.1.4 ESF 4: Law and Order

Background: The ESF on Law and Order maintains the law and protects the property and valuable commodities. It is mainly responsible to control crowd and avoid riots situations.

Situation Assumptions

- There would be panic and people will gather at a place.
- The crowds may go out of control.
- Riots may also take place.

Nodal Agency: Delhi Police

Support Agencies: Home guards, Civil Defense, Army, Home Reps, CPMF

SOPs for Nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick Response Team.
- The QRTs will be deployed at the affected site.
- Cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.
- Any additional requirements at site to be taken care of.

SOP for Quick Response Team on Law and order

- Quick assessment of law and order situation in affected areas
- Support and coordinate with Local Administration
- Prepare updates on the law and order situation every 4-6 hours and brief the authorities
- Controlling situations like rioting and looting, and cordon off sensitive areas
- QRTs will guide property and valuables in affected areas.
- Control and monitor traffic movement.
- QRTs will provide diversion of traffic on alternate routes as and when it is necessary.
- The QRTs will also provide information about traffic flow along various corridors, especially heavy traffic or congested roads.
- QRTs will communicate to police control rooms, details on the field activities including deployment and reinforcement of staff and resources and communicate nature of additional requirements.

7.1.5 ESF 5 Medical Response and Trauma Counseling

Background: The ESF on Medical Response and Trauma Counseling will look after emergency treatment for the injured people immediate after the disaster take place.

Situation Assumptions

- Emergency Medical services will be required by affected population
- Likely outbreaks of epidemic diseases after the disaster.
- Hospital services would be affected

Nodal Agency: State Health Department

Support Agencies: CATS, DHS, Indian Red Cross, Civil Defence, NSS CATS, DHS, Indian Red Cross, Civil Defence, NSS

SOPs for Nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.

- Team leader (TL) of primary agency will call nodal officers of supporting agencies.
- In coordination with the transportation ESF, it will ensure a critical number of medical professionals to be reached at the site including specialists from other Districts.
- If temporary housing arrangements are being made for the affected population, the ESF must ensure high standards of sanitation in settlements in order to reduce epidemic outbreak.
- Ensuring the provision and continuous supply of medical facilities (medicines, equipments, ambulances, doctors and manpower etc) required at the disaster affected site and the hospital health centers catering to disaster victims.
- In case of orthopedic care required in disasters like earthquakes the immediate response would have to be complimented by a follow up treatment schedule for a majority of the patients in/ near their place of residence.
- Trained professionals should be mobilized by psychosocial support.
- Ensuring setting up of temporary information centers at hospitals with the help of ESF through help lines and warning dissemination system.
- TL will coordinate, direct, and integrate state level response to provide medical and sanitation health assistances.
- On the recommendations of the EOC, the TL also responsible to :
 - Send required medicines, vaccines, drugs, plasters, syringes, etc.
 - Arrange for additional blood supply. Send additional medical personnel equipped with food, bedding and tents etc.
 - Send vehicles and any additional medical equipment.

SOP for Quick Response Team (QRT) on Medical Response and Trauma Counseling

- QRTs will provide situation and progress reports on the action taken by the team to the respective EOCs
- QRT's will assess type of injuries, number of people affected and possible medical assistance needs
- QRTs will ensure timely response to the needs of the affected victims such as:
 - Establishing health facility and treatment centers at disaster sites.
 - Providing medical services as reported by the District Civil Surgeon with District EOC and State EOCs.
 - Procedures should be clarified in between
 - Peripheral hospitals
 - Private hospitals
 - Blood banks
 - General hospitals and
 - Health services established at transit camps, relief camps and affected villages.
 - QRTs should maintain check posts and surveillance at each railway junction, ST depots and all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

7.1.6 ESF 6 Water Supply

Background: The ESF on drinking water and water supply will ensure provision of basic quantity of clean drinking water and water for other purposes in a manner that does not allow the spread of diseases through the contamination of water.

Situation Assumptions:

- Existing water storage bodies will be damaged and unusable.
- There would be an urgent need of water to assist victims in rescue operation.
- Break down of sanitation system.
- Contamination of water due to outflow from sewers or due to breakage of water pipelines.

Nodal Agency: Delhi Jal Board

Support Agency: MCD, Irrigation and Flood Control

SOPs for Nodal Agency

- Team leader (TL) of ESF on Water Supply will activate the ESF on receiving the intimation of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL will ensure special care for women with infants and pregnant women.
- Provide for sending additional support along with food, bedding, tents
- Send vehicles and any additional tools and equipments needed.

SOP for Quick Response Team (QRT) on Water Supply

- QRTs will ensure that supply of drinking water is made available at the affected site and relief camps
- QRT's will ensure the temporary sewerage lines and drainage lines are kept separate.
- QRTs will report the situation and the progress on action taken by the team to the EOC.
- QRTs will intimate their TL of the additional resources needed.
- Carry out emergency repairs of all damages to water supply systems.
- Assist health authorities to identify appropriate sources of potable water.
- Identify unacceptable water sources and take necessary precautions to ensure that no water is accessed from such sources, either by sealing such arrangements or by posting the department guards.
- Arrange for alternate water supply and storage in all transit camps, feeding centers, relief camps, cattle camps, and also the affected areas, till normal water supply is restored.
- Ensure that potable water supply is restored as per the standards and procedures laid down in "Standards for Potable Water".
- Plan for emergency accommodations for staff from outside the area.
- QRTs will ensure timely response to the needs of the affected victims.
- QRTs will set up temporary sanitation facilities at the relief camps.

7.1.7 ESF 7 Relief (Food and Shelter)

Back Ground: In the event of a disaster there would be a need of disbursing relief materials due to massive destruction of life and property taken place. The ESF on Relief should ensure coordination of activities involving with the emergency provisions of temporary shelters, emergency mass feeding and bulk distribution of relief supplies to the disaster victims as also the disaster managers and relief workers.

Situation Assumptions

- Probability of shortage of a critical resources
- Immediate assistance to the community at the time of resource shortage particularly when affected area is larger.

Nodal Agency: Department of Food and Civil Supplies

Support Agency: Department of Revenue, Indian Red Cross, NGOs

SOPs for nodal agency

- TL will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL will coordinate with all state and district level suppliers as identified with under IDRN.
- TL will coordinate with other ESFs related to transportation, debris and road clearance to ensure quality supply chain management of relief materials.
- Ensuring composite relief with availability of complimentary relief material.

SOP for Quick Response Team (QRT) on Relief

- QRTs will report to site of the relief camps
- QRTs will be responsible to management and distribute relief items to the affected victims
- QRT's will be responsible for reporting the progress on action taken by the team to the EOC.
- QRTs will provide information to their TL about the need of additional resources.
- Clearing of the areas to establish relief camps
- Setting up relief camps and tents using innovative methods that can save time
- Assist local authorities to set up important telecom and other service related facilities
- Initiate, direct and market procurement of food available from different inventories and ensuring food supplies to the affected population
- Preparing take-home food packets for the families
- Ensuring distribution of relief material to the all the people including vulnerable groups of the target area such as women with infants, pregnant women, children, aged people and handicapped.
- Ensuring support to Local Administration
- Locating adequate relief camps based on damage survey
- Develop alternative arrangements for population living in structures that might be affected even after the disaster

7.1.8 ESF 8 Equipment Support, Debris and Road Clearance

Background: The importance of this ESF emanates from the fact that most large-scale hazards such as earthquakes, cyclones, and floods primarily affect the building structures.

Situation Assumptions

- Access to disaster-affected area would depend upon the re-establishment of ground and water routes.
- Early damage assessment may be incomplete, inaccurate and general. A rapid assessment may be required to determine response time.
- Engineers and masons may be required in large scale for the inspection of present buildings

Nodal Agency: Municipal Corporation of Delhi

Support Agencies: PWD, DJB, DDA, DMRC

SOPs for Nodal Agency:

- Team leader (TL) will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL will coordinate with the supporting agency to mobilize equipments from the ware houses through IDRN database
- The respective supporting agencies will contact their respective personal to move the equipments to central warehouse
- The equipments like JCB, concrete cutters identified as per the need will be transported to the site.
- As per the information the nodal officer of Debris road clearance will make an assessment on of the damages of roads and built structures at the site and surrounding areas
- The nodal officers of Supporting Agencies will immediately start debris clearance operation to enable movement to the affected site.
- Review of the current situation is taken up by the nodal agency to update the support agencies and to delegate their respective personnel to take precautionary measure to plan de-routes for the transportation ESF's to be operational
- All supporting agencies will inspect the road and rail network and structures within the disaster site and surrounding.
- TL will also ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.

SOP for Quick Response Team on Equipment support, debris and Road Clearance

- ◆ Damage assessment including locations, number of structures damaged and severity of damage
- ◆ The QRTs will be deployed at the affected site.
- ◆ Enlisting the types of equipment as compiled from IDRN resource inventory required for conducting the debris clearance

- ◆ The QRTs will report the situation and the progress in response activities to the respective EOCs.
- ◆ Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- ◆ Repairing of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.

7.1.9 ESF 9 Help Lines, Warning Dissemination

Background: The ESF on help lines and warning dissemination should process and circulate information about the welfare of citizens of affected area and managing the tremendous flow of information. The help lines will be responsible for providing, directing and coordinating logistical operations.

Situation Assumptions

- There may be a flood of information and confusion about the injured population.
- The communication with affected area may be partially impaired.

Nodal Agency: Department of Revenue

Support Agencies: NIC/NGO Reps

SOPs for Nodal Agency:

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick response Team.
- The QRTs will be deployed at the affected site.
- QRTs will report the situation and the progress in response activities to the respective EOCs.
- Sending flash news of latest updates/donation requirements for disaster area all over the state
- Assisting the EOC in providing updated information to national as well as at the District level.
- Setting up of toll free numbers for emergency information assistance.

SOP for Quick Response Team on Help Lines, Warning Dissemination

- The QRT members will reach to the nodal office as soon as they will get instructions.
- QRT teams would reach to the site immediately after receiving instructions from the nodal officer
- On the site QRT members will take stock of the situation from the IC at the site and their counter parts.
- The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.

7.1.10 ESF 10 Electricity

Background: The ESF on electricity will facilitate restoration of electricity distribution systems after a disaster. In the event of a disaster there would be major electricity failure and many power stations damaged.

Situation assumptions

- Prolonged electricity failure.
- The affected victims may be panicked
- Halt of all activities specially jamming communication-networking systems in the affected site.

Nodal Agency: TRANSCO

Support Agencies: BSES, DERC

SOPs for Nodal Agency:

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick response Team.
- The QRTs will be deployed at the affected site.
- TL will dispatch emergency repair teams equipped with tools, tents and food.

SOP for Quick Response Team on electricity

- The QRT members will reach the nodal office as soon as they get instructions to do so from the TL.
- QRT members would reach to the site immediately after receiving instructions from the nodal officer
- On the site QRT members will take stock of the situation from the IC at the site and their counter parts.
- The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.
- Begin repairing and reconstruction work
- Assisting hospitals in establishing an emergency supply by assembling generators and other emergency equipments, if necessary.
- The members of QRTs will establish temporary electricity supplies for other key public and private water systems.
- The members of QRTs will establish temporary electricity supplies for transit camps, feeding centers, relief camps, District Control Room and on access roads to the same.
- The members of QRTs will establish temporary electricity supplies for relief material go downs.
- Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
- Report about all the activities to the head office.

7.1.11 ESF 11 Transportation

Background: The ESF on Transport should ensure smooth transportation links at state and district level. Within the disaster context, quick and safe movement of material and humans are a priority. It should coordinate the use of transportation resources to support the needs of emergency support forces requiring transport capacity to perform their emergency response, recovery and assistance missions.

Situation assumptions

- The state civil transportation infrastructure will sustain damage, limiting access to the disaster area.
- Access will improve as routes are cleared and repaired.
- The movement of relief supplies will create congestion in the transportation services.

Nodal Agency: Department of Transport

Support Agencies: DTC, DMRC, Northern Railways, PWD, and MCD

SOPs for Nodal Agency:

- TL of Transportation ESF will activate the ESF on receiving the intimation of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL establishes contact with the district EOC for FIR
- TL requests for reports from local Transportation ESF contact person
- TL communicates situation to support agencies and requests for detailed information on the status of transportation infrastructure in the affected area(s).

SOP for Quick Response Team on transport

- The QRT members will reach to the nodal office as soon as they will get instructions to do so from the TL.
- As quick response teams will receive instructions from the nodal officer they would reach to the site immediately.
- QRTs would report the situation and the progress on action taken by the team to the respective EOCs
- QRT will send a requirement schedule for the different modes of transportation e.g. trucks, boats, helicopters to be put on stand-by.
- QRTs will ensure timely re-establishment of the critical transportation links.
- The members of QRTs will establish temporary electricity supplies for relief material go downs.
- Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
- Reporting about all activities to the head office.

7.2 SOP FOR COMMUNITY TASK FORCES

Community or the local functionary is the most important mechanism in disaster management. Community Based Disaster Management (CBDM) is the latest methodology that is successfully experimented in India. CBDM is basically concerned all about with community disaster awareness initiatives, which is a comprehensive method to inform and train the local residents about how to prepare to cope up with natural as well as human induced disasters.

7.2.1 Community Task Forces

A perfect community based disaster management will be possible only with the help of community task forces. Community Task Forces (CTF) are the voluntary service group constituted out of the local able-bodies males and females for community disaster management through preparedness, mitigation and relief/rescue as well. The CTFs will help in preparation of plan documents, which is a must in CBDM. These CTFs will be trained by the DDMC of District North East in such a way that they could be volunteers in case of any emergency, other wise catalyst in creating awareness among the public in disaster management. The CBDM Plan shall be prepared through Participatory Learning Appraisal (PLA) methods. Each Community Task Force member has to perform his or her own duties and responsibilities. They are as follows:

7.2.2 CTF 1 Warning and Communication Group

Pre-Disaster

1. Ensure that communication equipments are in working order
2. Ensure an emergency contact directory with all relevant numbers
3. Carry a hazard map demarcating the most vulnerable/safe areas and households

On receipt of warning

1. Assemble in a central location and listen to radio together to determine the situation
2. Pay attention to local warnings and their interpretation
3. Crosscheck the warning received on radio, with the nearest control room
4. Disseminate the warning using megaphones/mikes sirens etc., door-to-door

During disaster

1. Remain in the safe shelters and provide the evacuees with regular updates

After a Disaster

1. Get the de-warning from District Control Room and announce the same
2. Disseminate precautionary information on post disaster health hazards and remedies
3. Give immediate assessment to the authority on damage, massive casualty etc
4. Guide the search and rescue team with geographic information and high damage

7.2.3 CTF 2 Evacuation and Temporary Shelter Management Group

Pre-Disaster

1. Monitor the infrastructure needs of the Community such as roads, school etc.
2. Co-ordinate with the local authority to identify/location for setting relief camps.
3. Check for plaster cracks and damp patches in safe shelters that require repairs
4. Stock dry food and other safe food stocks, fuels, etc.
5. Ensure that the shelters are easily approachable.
6. Ensure that the shelters are cleaned regularly

On Receipt of Warning

1. Evacuate people from their homes and clear the area as soon as possible
2. Move stocks of dry food, fuel and medicines to the shelters
3. Organise space to house evacuee families
4. Help the old, disabled, pregnant women, children etc to settle in the shelter
5. Ensure that strict sanitary practices are adhered to in the shelter
6. Register the evacuees and give them identification slips/cards

During disaster

1. If caught inside withstand with their backs against a strong indoor wall
2. If outside during disaster, run to an open space away from trees, buildings etc
3. If in a moving vehicle, stop and stay inside

Post Disaster

1. To ensure that evacuees are fed and housed until the de-warning is received
2. Organise tents and materials for construction of temporary shelters
3. Collect stocks of food, clothing, and fuel etc.
4. Clean and disinfect the shelter all throughout the stay and before leaving
5. Help NGOs and their engineers in conducting meeting and rehabilitation activity
6. Monitor the rehabilitation and reconstruction process of the community

7.2.4 CTF 3 Damage Assessment Group

Pre-Disaster

1. Carry a hazard map demarcating the most vulnerable/safe areas and households
2. Prepare and store sufficient number of assessment formats required

During disaster

1. Remain in the safe shelters and provide the evacuees with regular updates
2. Call emergency meeting of the group and assign duties and area of assessment

After a Disaster

1. Give immediate assessment to the authorities on damage, missing, casualty etc
2. Give detailed report of assessment to the authority.
3. Guide the search and rescue team with geographic information

7.2.5 CTF 4 Search And Rescue Group

Pre-Disaster

1. Familiarize themselves with existing response mechanisms of the government
2. Arrange for the necessary S&R equipment from Govt and Pvt Agencies
3. Use the equipment properly and maintain it well
4. Have a detailed map of the Community indicating vulnerable areas/safe areas
5. Organize themselves into pairs (buddy system)
6. Prepare back up teams ready for rotation of personnel

On Receipt Warning

1. Organise a meeting of the S&R members
2. Contact the administration for detailed information
3. Identify the vulnerable areas in which their help is required and decide the action plan
4. Gather the equipments required
5. Assist the evacuation team in moving people to the safe shelter
6. Co-ordinate with the First Aid team to provide primary health care
7. Shift the seriously injured persons to hospital/PHC

Post Disaster

1. Conduct a general hazard assessment to determine the possible hazards
2. Make a quick head count and maintain a list of missing persons
3. Clear debris and fallen trees in order to reach trapped victim.
4. Communicate with the sub-division and District levels on additional assistance
5. Coordinate closely with the first aid team for primary health care to rescued victims
6. Coordinate with the evacuation team to shift rescued persons to open space/tents

7.2.6 CTF 5 First Aid and Trauma Counselling Group

Pre-Disaster

1. Maintain a list of pregnant women, infants, disabled, sick, old etc
2. Keep First Aid kits ready and ensure that expired drugs are replaced with new ones
3. Distribute basic medicines and demonstrate their use
4. To keep stretchers/local alternative ready to carry injured people

On receipt of Warning

1. Ensure that contents of all First Aid kits are satisfactory.
2. Move into the safe shelter.
3. If caught inside, stand with their backs against a strong in door wall (in EQ)
4. If outside during the earthquake, run to an open space (in EQ)
5. If in a moving vehicle, will stop and stay inside (in EQ)

Post-Disaster

1. Attend to the injured people

2. Counsel the traumatized people
3. Listen to and calm the victims affectionately and patiently
4. Help doctors and paramedics shift the ill and the injured to hospitals
5. Isolate the cases with infectious diseases and prevent them from spreading
6. Provide preventive medication if there is danger of cholera, dysentery etc
7. Inform the relief group about medical supplies that are running low.

7.2.7 CTF 6 Relief Co-Ordination Group

Pre-disaster

1. Familiarize with damage and needs assessment formats
2. Assess the estimated need of relief materials
3. Mobilize stocks of food grains and medicines from government, NGOs, etc.
4. Stocks materials like ropes, bamboos, tarpaulin etc in the safe shelter identified
5. Keep a record of the stock available and maintain and dispatch them as required
6. Always be impartial and sincere to the duty the victims
7. Be transparent in the accounting and stocks by giving timely correct information.

On receipt of Warning

1. Coordinate with the evacuation and temporary shelter management team to move stocks of food, water and so on to the safe shelter
2. Move to the safe shelter
3. If caught inside, will stand with their backs against a strong indoor wall (in EQ)
4. If outside, run to an open space away from trees, buildings and electric lines (in EQ)
5. In a moving vehicle, will stop and stay inside (in EQ)

Post Disaster

1. Conduct a complete damage and need assessment
2. Based on a preliminary need assessment as follows, communicate preferences to the District Control Room
 - The size, scope of the relief items required
 - Likely duration of the distribution of relief material
 - The estimated number of people affected
 - Local capacity, resources and external help
 - The immediate needs of the victims
3. Communicate the assessment findings to other Task Force groups and local authorities
4. Establish a distribution centre or community kitchen begin distribution
5. Ensure that food and other materials are distributed in an equitable manner
6. Prioritise the elderly persons, pregnant women, children etc.
7. Maintain a list of the households receiving assistance
8. Make a physical inventory of stocks when external assistance arrives
9. Work closely with the communication group to stay in touch with control room
10. Organise a meeting to evaluate the experience, internalise learning
11. Keep the undistributed relief material in a safe place/go down and preserve it

7.2.8 CTF 7 Water And Sanitation Group

Pre-Disaster Preparedness Activities

1. Ensure sufficient supplies of chlorine tablets etc. for disinfecting drinking water
2. Ensure sufficient stocks of lime powder for disinfecting large water bodies
3. Ensure that sufficient water is stored in proper tanks and jerry cans in safe shelters
4. Ensure that there is list of contact persons at Distcom and Jal Board for assistance
5. Raise prior awareness amongst the community about how to treat water sources
6. Set a minimum standard in advance for distribution of water in emergency
7. Ensure sufficient number of raised platforms, deep tube wells etc constructed
8. Stock long steel rods, kerosene and fuel wood to dispose corpus and carcasses
9. Help of the local administration to construct temporary sanitary facilities
10. Identify the tractors and lab ours required for sanitation purposes
11. Contact Jal Board for assistance in acquiring diesel engines and generators

On Receipt of Warning

1. Assess the drinking water supply and available water resources
2. Organise for alternate power supply by procuring generators/diesel engines
3. Ensure that the sanitation facilities at the safe shelter are in working order
4. Move into the safe shelter for ones own safety

Post Disaster

1. Make immediate repairs of broken or burst pipes
2. Coordinate with DJB/MCD/NDMC for procurement of water tankers if required
3. Disinfect large water bodies with lime powder
4. Coordinate with the Sanitary Inspectors for taking drinking water samples
5. Ensure that water is distributed in an equitable manner
6. Ensure that sufficient water is available in bathing units and toilets at relief camps
7. Demarcate areas for safe excreta disposal around the relief camp
8. Guide the local authorities to construct latrines away from groundwater sources.
9. Coordinate with the local authority to construct sufficient bathing cubicles for females
10. Spray bleaching powder and other disinfectants to prevent infectious disease
11. Ensure that solid waste is put in refuse containers or buried in a refuse pit
12. Ensure that there are no medical wastes such as needles, drugs etc. lying around
13. Co-ordinate with the first aid team to inoculate against water borne diseases
14. Construct temporary soak pits for onsite disposal of wastewater
15. Co-ordinate with the search and rescue team for disposal of carcasses
16. Ensure that dead bodies are registered and cremated after legal/religious formalities

CHAPTER 08

LINKING WITH DEVELOPMENTAL PLAN

The Government of NCT of Delhi has set up a two-tier structure, consisting of the Apex Committee at the level of Government of NCT of Delhi and District Development Committee at each District level. These committees are intended to encourage decentralization in decision-making and provide a responsive and responsible administration by involving elected representative of the area (MLAs and Municipal Councilors), Resident Welfare Associations, Deputy Commissioners and district level officers of other departments. One of the elected representatives on rotation basis will chair the committee.

8.1 OBJECTIVES OF DISTRICT DEVELOPMENT COMMITTEE

The broad objectives behind the constitution of these Committees are as under:-

1. Provide a responsive administration at district level.
2. Decentralize decision-making in matters relating to all departments of the Government of NCT of Delhi with specific reference to public utility and basic civic amenities.
3. Involve people directly as well as through elected representatives in the process of planning, execution and monitoring of various schemes, projects and policies.
4. Institute an efficient and effective, public grievances redressal system at district level to generate confidence of the people in elected Government.
5. Provide balanced development of and equitable access to various facilities among districts.
6. Empower the officers of all departments including district administration with better control, supervision and monitoring of various schemes.
7. Minimize delays on account of the multiplicity of authority in Delhi.
8. Provide a single window approach to the public with regard to various problems being faced by them.
9. Ensure speedy implementation of all plan schemes and projects falling within the district annual/five year plans of Delhi.

8.2 DISASTER MANAGEMENT AND DEVELOPMENT

- ❖ District North East has to take up disaster management activities in the district with foresight and long time development goals. The District Disaster Management Committee of District North East shall take special initiatives to interrelate the development plan of the district with disaster management.
- ❖ Construction of various installations and government and public buildings etc shall be done on a long-term intention. It has to be given special emphasizing to various community centers, storage facility, drinking water facility etc in such strategic places where it could be utilized by the relief camps in case of disaster.

- ❖ Each Line department in District North East shall set apart 2% of its annual budget exclusively for disaster preparedness and mitigation measures. This amount shall be properly utilized to train its own staff and Disaster Management Teams.
- ❖ The policy makers from District North East shall have a grater role in linking disaster management with developmental efforts. They shall lobby and act as catalyst in the Legislative Assemblies and Parliaments for creation of more legislations regarding disaster management.
- ❖ The policy makers from District North East shall try to incorporate their political campaigns and public meeting to make the public aware of disaster management and train their territorial task forces to respond in emergency situations.
- ❖ The policy makers from District North East shall allocate maximum amount from their MPLAD and MLA fund as well as Counselors allocation for sample seismic constructions, community awareness campaigns etc. This will encourage the public to take up disaster management with due importance.
- ❖ District Development Committee (DDC) shall discuss the progress and developments in disaster management activities in the district in its routine meetings and the activities shall be monitored closely.

CHAPTER 09

BUDGET AND FINANCIAL ARRANGEMENTS

Disaster management in the present form is a new subject both to the government as well as the general public. The already existing calamity relief fund in the Central and State level as well as the other allocations are nominal to cater the need of increasing devastations. In the case of the NCT of Delhi, even calamity relief fund is not available. Fortunately, the concept is developing such a way that the Planning Commission has conceptually agreed to have an exclusive mechanism to fund and to monitor the financial arrangements of disaster management.

9.1 RECOMMENDATION BY 11TH FINANCE COMMISSION

The Eleventh Finance Commission (2000-2005) has responded very positively to the long pending request for greater allocation of fund for disaster management. The finance commissioner suggested various recommendations to solve the issue in state and district level.

Every state has a State Calamity Relief Fund (CRF) for immediate action after math of a disaster. But in the case of the state of NCT of Delhi, there is no CRF. There is police modernization fund, which is utilized mostly to modernize the police department to fight against disaster.

An alternative mechanism is to be constituted in all the districts of Delhi to tackle the disasters. As the 11th Finance Commission recommends it, District North East shall set apart 10 % of its development fund for disaster preparedness and mitigation measures. Every year, the annual allocation of 10 per cent will be a relief to the administration to organize various disaster preparedness activities in the district. Similarly each line department in the district shall allocate minimum 2 per cent to 10 per cent of its developmental fund with the same purpose.

9.2 DISTRICT CALAMITY RELIEF FUND

Besides, the DDMC North East Delhi shall constitute a District Calamity Relief Fund (DCRF). This amount shall be raised purely from the General Public through donations. There can be a committee under the leadership of the Deputy Commissioner North East, to operate the fund. Once the fund is created, every year the DDMC shall prepare reports on the utilization of fund, disasters faced in the previous financial year as well as potential programme planning for utilization of this fund.

9.3 STATE ALLOCATIONS

As an alternative option, the DDMC shall forward a request to the Government of NCT of Delhi to grant 50 per cent of the targeted DCRF as one time grant and a matching amount shall be collected from the general public through donations.

CHAPTER 10

MONITORING AND EVALUATION

10.1 PREPARATION AND UPDATION OF DDMP

District Disaster Management Plan for the North East Delhi shall be a public document. It is neither a confidential document nor restricted to any particular section or department of administration. The underlying principal of disaster management is that it has to be part of all departments and none can fold fingers against it.

The District Disaster Management Plan is the sum and substance of the *Horizontal* and the *Vertical* disaster management plans in the district. *Horizontal* plans included plans prepared by line departments such as Delhi Police, Delhi Fire Service, MCD, Irrigation and Flood Control, Delhi Civil Defence, Department of Food and Civil Supplies, Public Works Departments etc where as the *Vertical* plan includes Sub Divisional Plans, Community Plans, School/Hospital plans and all other logical units' plan at the lower level and State disaster management plans and National disaster management plans at the higher level.

- ❖ Preparation of plan is the ultimate responsibility of the District Disaster Management Committee (DDMC) or the person / sub committee appointed by the DDMC in the district. The first draft plan is to be discussed in the DDMC and later the Chairman of the DDMC shall ratify it.
- ❖ The same procedure is to be followed in updating of the plan document. The District plan is to be updated biannually by the District Disaster Management Committee or the sub committee appointed by the DDMC. In order to update the document, all Vertical and Horizontal plans shall be collected and incorporated to the District Plan.
- ❖ After each biannual updation of the DDMP, version number shall be given serially. A copy of the updated document shall be circulated to each stakeholder of disaster management in district North East.

10.2 REGULAR UPDATION OF DDMP

Besides the above said procedure of updation of the DDMP, a regular data collection system shall be set up at district EOC. This is just to be ready to face any situation, though the Plan Document has not been updated since last few couple of months. The EOC in-charge, under the supervision of the DDMC Chairman shall enter the collected data to an online system or shall be documented properly.

10.3 POST DISASTER EVALUATION MECHANISM

Disasters are always unexpected. Each disaster causes huge loss of human lives, livestock and property as well. It is said that, every disaster repeats after a particular interval. Also lessons learnt from a particular disaster will help to plan for another potential hazard.

The DDMC Chairman shall make special arrangements to collect data on a particular disaster irrespective of size and vulnerability. This post disaster evaluation mechanism shall be set up with qualified professionals and researchers and the collected data shall be thoroughly crosschecked and documented in the EOC for further reference.

10.4 MEDIA MANAGEMENT

Media Management is one of the core issues related to disaster management. Usually, in case of disaster, hundreds of media crew reaches the site even before the outside disaster management agencies and they assess the situation. The report they release on air is contradicting and creates panic. In order to control the situation certain arrangements shall be made by the district. As a disaster is noticed the Incident Commander shall do the following measures to control the media:

1. Along with information dissemination to the vertical and horizontal agencies, press people also shall be called and given preliminary data based on assessment. This shall reduce the guesswork of the media people.
2. Only the state owned electronic, print media should be taken to the site. More people means more confusion and hazard in disaster management.
3. In every one hour or so the Incident commander shall give press release in order to control false information to the outside world.
4. No media shall be allowed to air or print pictures of dead bodies with worst condition. There is a tendency to do so by the media to make sensitivity.

In a disaster situation, only the incident commander or his assignee in district level will face the media and brief, No other parallel agency or ESF or voluntary agency involved in the disaster management shall give any sort of press briefings.

CHAPTER 11

DISASTER MOCK DRILLS

The ultimate objective of the Training programme on preparedness and mitigation is to conduct mock drill, which is an artificial scenario of a disaster. The objectives encompassed in the mock drill are to validate the Standard Operating Procedures (SOP) and ascertain the capabilities created by District Disaster Management Committee (DDMC) in managing and responding to natural disasters.

A sample note, which describes a likely scenario of earthquake in district North East) has been given below. It also lays down the sequence of actions to be taken by different agencies in response to the scenario.

Model Scenario for Mock Drill in North East

The objectives encompassed in the mock drill are to validate the Standard Operating Procedures (SOP) and ascertain the capabilities created by district Disaster Management Committee (DDMC-NE) in managing and responding to natural disasters.

Concept

1. This document describes a likely scenario of earthquake in North East Delhi. It also lays down the sequence of actions to be taken by different agencies in response.
2. the emergency response to the scenario is to be evaluated at four phases of activity levels, as given below:
 - **Notification Phase:** During this phase the incident will be identified and relevant agencies will be notified and their responses ascertained.
 - **Response Phase:** In this phase the capabilities available with the government at various levels will be put into effect for controlling the situation.
 - **Recovery Phase:** the setbacks suffered as a result of the earthquake will be restored.
 - **Restoration Phase:** the site clearance and resumption of normal activity will be ensured.

Specific assumptions

- Certain aspects of damage assessment system are purported to be in place.
- Restricted avenues of reaching the incident site.
- Certain fire tenders/rescue vehicles are declared off-road due to mechanical faults and routine commitments.

Instructions

1. The following control rooms to be activated:
 - a. Delhi Disaster Management Authority
 - b. Delhi Police
 - c. Delhi Fire Service

- d. Municipal Corporation of Delhi
 - e. Department of Irrigation and Flood Control
 - f. Delhi Jal Board
 - g. Delhi Metro Rail Corporation
 - h. Delhi Transco
 - i. Public Works Department
 - j. Ministry of Home Affairs
 - k. Indian Army
 - l. Other critical departments/agencies
2. Wherever the control room does not exist, a nominated officer will be the duty officer. He will receive messages and disseminate information as per the Standard Operating Procedures.
 3. Traffic rules will not be violated while responding
 4. Wherever a road is declared out of use, detours will be taken to reach the site of incident.
 5. A report pertaining to this exercise should be submitted within next two working days to the Divisional Commissioner of Delhi.

Scenario for mock drill

The Scenario involves multiple incidents/tremors of earthquake in the North-East district.

(Give exact date and time)

Earthquake of magnitude 6.5 strikes Delhi, with epicenter near Seemapuri Colony, Intensity: 8.2

- Massive collapse of resettlement colonies and collapse of North East Deputy Commissioner's Office
- Collapse of steel bridge over Yamuna that has access to one of the 3 DMCs.
- Closest DMC: Lakshmi Nagar DMC
Closest Police Station: Nand Nagari
Closest Fire Station: Dilshad Garden
- Adjacent areas (Seemapuri, Nand Nagari, Dilshad Garden, Shahadra etc.) report large scale collapse of buildings, and blocking of roads by collapsed structures
- Total 30 sites reported to be damaged
- Approximately 500 people dead and 3000 injured.
- Many people feared dead, hundreds of casualties.
- Telephones not working, mobile connections off. DJB Water pipeline burst underground, water logging in areas.
- Delhi Secretariat entrances blocked.... Divisional Commissioner's office damaged, possible unsafe to enter.
- Electricity supply disrupted, electric poles fallen in places.
- PCR Vans report tremors, and building collapse from CP and other areas.....

SEQUENCE OF EVENTS, EXPECTED RESPONSE AND AGENCIES INVOLVED

S. No	Event	Expected Response by the Agencies	Agencies	Remarks
1	<u>Notification phase:</u> to district Authorities of the incident – Tremors lead to falling of buildings	<ul style="list-style-type: none"> ▪ PCR van of Delhi Police (at various locations in the North-East district) to inform the nearest Police Station / DCP ▪ Police Station /DCP (North-East) to inform (through Noble Sets) the Incident Commander (Deputy Commissioner-Revenue), Delhi Police Headquarter, Unified Commander (Divisional Commissioner), Control Room of Ministry of Home Affairs. ▪ Incident Commander to declare the disaster and activate the District Emergency Operations Center (DEOC). ▪ DEOC to notify Fire Service Station, nearby hospitals, Civil Administration 	District/State Revenue Department, PCR, Local / District station of Delhi Police, Local Fire Station/ Headquarter of Delhi Fire Service, District Health Officer/ CMO	PCR and Local Police Station to be sensitized beforehand
2	<u>Notification phase:</u> Notification to State and National Authorities by the designated Unified Commander	<ul style="list-style-type: none"> ▪ Information to Head of the Specialized Response Teams (from Incident Commander to Delhi Fire Service Headquarter) ▪ Information to Specialized Response Teams by Delhi Fire Service Headquarter (Disaster Management Centers at Laxmi Nagar, Nehru Place, Rohini) ▪ Information to National Emergency Management Authority by Officer-in-Charge of State Emergency Operations Centre ▪ Dispatch of additional Police forces to cordoning off the area and maintenance of law & order (By DCP North-East). ▪ Alerting Delhi Fire Service headquarter for mobilizing additional resources (by Zonal Officer, DFS, North-East district). ▪ Alerting all nearby and designated hospitals (by DEOC). ▪ Information by State EOC to Nodal Officers of ESFs (Revenue, Police, Fire, and Health) to mobilize quick damage assessment teams to incident sites for submitting first reconnaissance report and also to place designated officer at both 	Deputy Commissioner of North-East district, Deputy Commissioner of Police North -East district, Unified Commander,	MHA Control room and Police Control Room to be trained.

		<p>State and District EOC.</p> <ul style="list-style-type: none"> ▪ Information by State EOC to Nodal Officers of ESFs (MTNL, Health, MCD, Urban Development, DJB, Transco, and Transport) to mobilize quick damage assessment and restoration teams to incident sites and also to place designated officer at both State and District EOC. ▪ Information by State EOC to Nodal Officers of relief ESFs (Food & Civil Supplies and Shelter) to mobilize teams responsible for setting up of relief camps in the vicinity of incident sites and also to place designated officer at both State and District EOC. ▪ Information by State EOC to Nodal Officers of all ESFs to inform respective support agencies to mobilize teams/resources as needed to support their tasks. 		
3	<p><u>Response Phase:</u> Mobilization of Resources</p>	<ul style="list-style-type: none"> ▪ On instructions of the respective nodal officers of first response agencies (Police, Fire, Health, MTNL, Health, MCD, Urban Development, DJB, Transco, Transport), Emergency Response Teams to mobilize the teams and report to the respective Operations Chief at the site(s) of the incident. ▪ All remaining emergency support agencies to mobilize their resources and wait for instructions of the Incident Commander. ▪ Activation of fire Services and calling of fire parties from other fire stations. ▪ Local Police Stations to maintain public order till additional police force join. ▪ On instruction of Nodal Officer-Health, Emergency medical teams to rush to the sites and mobilization of medical teams from other parts of Delhi. ▪ On request of DCP-NE, Delhi Police Headquarter to mobilize additional resources. ▪ Traffic Police to keep the routes clear for movement of emergency services and control traffic movement. ▪ Activation of Control Room of Municipal Corporation of Delhi for civic services. 	<p>Delhi Police, Delhi Fire Service, Director Health Service, Other Emergency Support Agencies/Units.</p>	

		<p>Alert to control rooms of New Delhi Municipal Corporation and Delhi Cantonment Board for response readiness on request.</p> <ul style="list-style-type: none"> ▪ No media coverage. ▪ Activation of State Response Teams. ▪ Police to detail Forensic and Crime investigation teams. ▪ Alerting Forensic Sciences laboratories. ▪ Report from Meteorological Department regarding weather conditions to be received by SEOC. ▪ Unified Commander to receive Quick assessment report from Incident Commander and prepare a report on Situation Analysis for consideration of Cabinet of Ministers/Apex Committee members of DDMA. 		
4	<p>Movement of Emergency Response Team (ERT) under the overall supervision of Unified Commander from their permanent location to the site of incident.</p>	<ul style="list-style-type: none"> ▪ Orders to emanate from Incident Commander. ▪ Planning Chief divides the responsibilities between participating Emergency Response Teams and allocates specific tasks. 	<p>Delhi Police, Delhi Fire Service, Delhi Traffic Police, Ministry of Home Affairs.</p>	<p>Simultaneous action of nearby hospitals being activated in Delhi for the purpose of exercise.</p>
5	<p>Physical movement and deployment of Emergency Response Teams at the site(s) of incident</p>	<ul style="list-style-type: none"> ▪ Coordination of intercommunication between Emergency Response Teams, Police, Fire Service, and traffic control through Noble Sets. ▪ Mobilizing heavy cutters, cranes, bulldozers and other heavy equipments from line departments/private firms for equipping search & rescue teams. 	<p>Incident Commander, DCP (Communication)</p>	<p>Route plan (restricted avenues of reaching the incident site), traffic control</p>
6	<p><u>Response phase:</u> cordon of the area, evaluation of</p>	<ul style="list-style-type: none"> ▪ Cordoning off the deserted incident sites by Police, Home Guards. ▪ Directions and instructions to the local population on Public Address System by Police to prevent panic and warn about 	<p>Incident Commander</p>	

	the situation, site security and control	<p>possibilities of after shocks.</p> <ul style="list-style-type: none"> ▪ Setting up of command post. ▪ Designating staging area for response personnel ▪ Designating triage and emergency treatment area. ▪ Designating decontamination centers for preventing possible chemical release (if needed). ▪ Arrange site security and control with the help of police and other support agencies. ▪ Arrange rescue operations without interruption for at least first 100 hours. ▪ Arrange contamination control (in case of chemical leakage) ▪ Arrange recovery and restoration. ▪ Transition briefing at State/District EOC 		
7	<u>Response Phase:</u> Detection, Decontamination and Rescue & Evacuation (if chemical spillage takes place as an after effect of earthquake)	<ul style="list-style-type: none"> ▪ Adherence to safety norms. ▪ Identification and confirmation of the source of contamination. ▪ Preservation of samples ▪ Contamination control and decontamination of personnel. 	Emergency Response Teams	
8	Safety	<ul style="list-style-type: none"> ▪ Site security and control (by Police with assistance from Civil Defence/Central Para Military Forces. ▪ Designation of dangerous, and safe buildings by Team of engineers from MCD/DDA/PWD/I&FC ▪ Safety instruction for Emergency Response Teams by Police ▪ Evacuation routes and procedures advise to Emergency Response Teams 		Safety officer to take charge for events at sr. no. 8 and 9 simultaneously
9	<u>Response phase :</u> execution of rescue and relief operations	<ul style="list-style-type: none"> ▪ After receiving external / central support, judicious deployment of rescue and evacuation teams ▪ Mass scale First aid camps by Civil Defence / Red cross / St. John's Ambulance volunteers. ▪ Segregation of patients according to severity / triage 		Preparedness of hospital / activation of a mobile hospital <ul style="list-style-type: none"> ▪ Treatment ▪ Discharge

		<ul style="list-style-type: none"> ▪ Casualty evacuation ▪ Setting up of temporary hospitals by Health Department/MCD at severely affected sites and providing medical cover and medicines. ▪ MCD to arrange for carcass disposal and debris clearance. 		<ul style="list-style-type: none"> ▪ ge Review
10	Setting up of Relief Camps at safe community buildings/open spaces	<ul style="list-style-type: none"> ▪ Selection of locations (open grounds/parks, safe school buildings/ community centers, other vacant public places etc.) for setting up of Relief camps by operations Chief. ▪ Setting up of weather resistant temporary shelters (tents) for affected population (approximately one lakh) with mattresses, blankets, <i>durry</i>, bed sheets etc. by MCD. ▪ Arrangement of food packets, mobilizing resources for setting up of community kitchens with involving charity groups/volunteers/NGOs/CBOs/NCC/NS S/Youth Clubs etc. and distribution of ration by Deptt. Of Food & Civil Supplies. ▪ Ground level functionaries to be instructed to strictly ensure equitable distribution of emergency relief assistance. ▪ Arranging for potable water through tankers and also in the form of water pouches by Delhi Jal Board. ▪ Setting up of separate mobile/temporary toilets and bathing facilities for both sexes by at all relief camps MCD/volunteers. ▪ Arrangement of lighting during night through alternative sources (generator, solar lamps etc.) at relief camps by MCD. ▪ Anganwadi workers / volunteers / CBOs to be motivated for catering to the needs of special groups within the communities viz. disabled/old persons, children's, pregnant / lactating women. ▪ Revenue department to 		
11	Actions of information officer of media management	<ul style="list-style-type: none"> ▪ Dissemination of instruction of Incident Commander to the public and Emergency Response Teams ▪ Guide the personnel arriving at the site ▪ Information on whereabouts of the 		

		<ul style="list-style-type: none"> ▪ victims to the relatives ▪ Request assets from local management ▪ Assist in transition briefing 		
12	<u>Restoration and recovery</u>	<ul style="list-style-type: none"> ▪ Demobilization of men, area and equipment ▪ Removal of dead bodies ▪ Handing over evidence/property/records to Police ▪ Declaring the area open for public use 		Civil administration to assist
	Crime investigation	<ul style="list-style-type: none"> ▪ experts to analyze evidences 	Delhi Police	

Resources Required

Fire Department

- Acoustic listening devices
- Search Cams
- Thermal Imaging Cameras
- Rescue gears
- Canines
- Hydraulic platform 60 mts. Telescopic cum Articulating
- Hydraulic platform 54 mts. Telescopic with Articulating tip boom .
- Hydraulic platform 45 mts. Telescopic with Articulating tip boom & rotating cage
- Hydraulic Telescopic crane (45 mts. 100 ton capacity)
- Hydraulic/pneumatic rescue tools (Heavy duty industrial type) Concrete saws, portables, gasoline operated with diamond chains
- 12" & 14" with water pump & hose/ connectors.
- Concrete breakers (28kgs)
- Concrete breakers (10kgs)
- Pneumatic High-pressure lifting bags 12 to 132 tons.
- Life detector compact system
- Helmets with head mounted strap lights/ battery
- & Wireless/ walkie-talkie adapters
- Mechanical jack supports
- Hydraulic jacking system
- Front End Loader (JCB Type)
 - Bucket cap 1.0 cu.mt/Back hoe cap. 0.2/0.3 cu.mt. HP
 - Bucket cap 2.0 cu.mt. HP
 - Bucket cap. 1.0 cu.mt. HP
- Excavator , Bucket Cap 0.3 cu m.wt. @ 7/8 ton, HP @ 50/60 HP
- Bucket cap 1.0 cu.mt. wt. @ 20/25 ton HP @ 120/135
- Wheel Dozer G14 D type, Bulldozer D80 A12, Tipper truck, Tractors,
- Lifting crane cap. 25 ton.
- Mobile medical van, Tata Sumo
- Dead animal van/Animal ambulance
- De watering pump heavy duty mounted on a LCV

- Towing crane, Trailer 25 ton to transfer the machinery
- Mobile Breakdown Unit

Other Resources

- emergency lights, torches
- public Address Systems (battery operated)
- Stretchers, Covered dustbins
- Earth digging equipment
- Polythene sheets, Fire fighting equipment
- Bleaching Powder, First aid kits
- Protective shoes/gloves, Causality bags

Composition of search and rescue team

The Typical Search & Rescue Team should consist of:

- Rescue and evacuation team
- Relief team, Medical unit, Technical support team
- Damage & need Assessment team

APPENDIX

1. ABBRIVIATIONS

AC	Assembly Constituency
ACP	Assistant Commissioner of Police
ADM-NE	Additional District Magistrate-North East
AIIMS	All India Institute of Medical Science
BDO	Block Development Officer
CATS	Centralized Accident trauma Service
CBDM	Community Based Disaster Management
CBO	Community Based Organizations
CBDP	Community Based Disaster Preparedness
CD & HG	Civil Defence and Home Guards
CDMO	Chief District Medical Officer
CGWC	Central Ground Water Commission
CMG	Crisis Management Group
CP	Commissioner of Police
CTF	Community Task Forces
CWC	Central Water Commission
DC-NE	Deputy Commissioner – North East
DCP	Deputy Commissioner of Police
DCRF	District Calamity Relief Fund
DDA	Delhi Development Authority
DDMA	Delhi Disaster Management Authority
DDMC	District Disaster Management Committee
DDC	District Development Committee
DDMP	District Disaster Management Plan
DEOC	District Emergency Operation Center
DFS	Delhi Fire Service
DHS	Delhi Health Service
DIO	District Information Officer
DJB	Delhi Jal Board
DMC	Disaster Management Committee
DMOB	Demobilization Unit Leader
DMRC	Delhi Metro Rail corporation
DOCL	Documentation Unit Leader
DPO	District Project Officer
DRMP	Disaster Risk Management Programme
DTC	Delhi Transport Corporation
EOC-NE	Emergency Operation Center-North East
EQ	Earth Quake
ESF	Emergency Support Functions
F & CS	Food and Civil Supplies
FRT	Field Response Teams
GTBH	Guru Teg Bahadur Hospital
IAP	Immediate Action Plan
IC	Incident Commander

ICP	Incident Command Post
ICS	Incident Command System
IDRN	India Disaster Resource Network
IEC	Information, Education and Communication
I&FC	Irrigation and Flood Control
IHBAS	Institute of Human Behaviours and Allied Science
IMT	Incident Management Teams
INGO	International Non- Governmental Organizations
JAO-NE	Junior Accountant-North East
J&K	Jammu and Kashmere
JT.CP	Joint Commissioner of Police
MCD	Municipal Corporation of Delhi
M&CW	Mother and Child welfare
MHA	Ministry of Home Affairs
MLA	Member of Legislative Assembly
MLO	Motor Licensing Officer
MTA	Merchant Traders Associations
MTNL	Mahanagar Telecom Nigam Limited
NCC	National Cadet Corps
NCMC	National Crisis Management Committee
NCT	National Capital Territory
NDMA	National Disaster Management Authority
NEOC	National Emergency Operation Centre
NGO	Non Governmental Organizations
NIC	National Informatics Centre
NO	Nodal Officer
NRP	National Response Plan
NSS	National Service Scheme
NW	North West
NYK	Nehru Yuvak Kendra
OEOC	Onsite Emergency Operation Center
PCR	Police Control Room
PLA	Participatory Learning Appraisal
PWD	Public Works Department
QRT	Quick Response Teams
RCC	Reinforced Concrete Cement
RESL	Resources Unit Leader
RWA	Residents Welfare Associations
SDM	Sub Divisional Magistrate
SEOC	State Emergency Operation Center
SITL	Situation Unit Leader
SOP	Standard Operation Procedures
SW	South West
TL	Team Leader
UNDP	United Nations Development Programme

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