

## **CHAPTER / MANUAL I**

### **The particulars of Organization, Functions and Duties**

The Disaster Management Department (DMD) was set up in 1999 at the Municipal Head Office to tackle disasters in Mumbai. After the July 2005 deluge, it was upgraded with modern equipment to handle emergency situations effectively. Control Room further upgraded with various ultra modern facilities and shifted to second floor in MCGM Head Office.

#### **District Disaster Management Authority:-**

In the year 2011, Greater Mumbai Disaster Management Authority was constituted in exercise of the powers conferred by Sub-sections (1), (2) and (4) of section 25 of the Disaster Management Act, 2005 (53 of 2005) and rule 2 of the Maharashtra District Disaster Management, by appointing Municipal Commissioner of Municipal Corporation of Greater Mumbai as ex-officio Chairman of the Authority.

In the year 2018, as per the Government Resolution followed by the orders of the Hon'ble High Court, the Districts Disaster Management Authority for the Mumbai City and Mumbai Suburban are constituted. Senior Most Additional Municipal Commissioner for Mumbai City and Mumbai Suburban of Municipal Corporation of Greater Mumbai are appointed as ex-officio Chairman of the District Disaster Management Authorities.

#### **Functions of Disaster Management Department:-**

1. Single –point source for all issues related to disaster management.
2. Hazard Vulnerability & Risk Assessment
3. Prevention & Preparedness
4. Mitigation
5. Response
6. Recovery & Reconstruction
7. Command & Control agency between administration & field units.
8. Provide early warning to citizens

9. Arrange for emergency supplies of water and food.
10. Arrange for transfer of stranded and marooned persons.
11. Arrange for emergency transport for the seriously injured.
12. Coordinate for setting up temporary shelters.
13. Coordinate with NGOs

#### **Objectives of Disaster Management Department:-**

1. Ensure quick and effective response any disaster.
2. Improve coordination among all the responding agencies.
3. Disseminate information related to disasters to the citizens.
4. Encourage preparedness at all levels.
5. Provide assistance to all affected in the event of a disaster.
6. Alert citizens for probable emergencies.
7. Impart Training to the Citizens & stakeholders

#### **Emergency Operations Centre (EOC):-**

The Disaster Management Department works round the clock throughout the year. It serves as a Command & Control agency between the administration and field units. It is a single-point source for all issues related to disaster management. It coordinates with various stakeholders for quick and effective response during a disaster.

- Land lines
- A Very High Frequency (VHF) wireless communication system which is connected to 53 installations for effective communication with key stakeholders.
- Television sets which are tuned to major news channels to keep abreast of the latest news.
- Arrangements of HAM radio available on call.
- A '1916' helpline through which Citizens can inform the MCGM about major / minor accidents, fire, earthquakes, bomb blast etc.

- Hotlines with 52 vital agencies, 3 major & 2 peripheral hospitals & 24 administrative wards. Each agency provides regular updates about the situation in the city.
- For monitoring disaster management activities a video wall of size 6200 mm long and 1744mm height has been installed. Video wall receives feed from 5272 CCTV cameras installed by Mumbai Police, 231 by Traffic Police and 7 by SWD department of MCGM.
- Library: A library facility is available with the books related to Disaster Management, Emergency Plans, SOPs, Case Studies etc.
- Conference Hall: Conference hall having seating capacity of 60 for media briefing and Disaster Management related meetings.

**The following types of complaints are registered in Disaster Management Department:-**

The 32 emergency and man-made disasters that have been categorized by the Department of Disaster Management of Greater Mumbai are further classified into 102 sub-major disasters like landslides, trees or unauthorized trees, water scarcity, housing, short circuits, floods, earthquakes, explosions etc. on registration, these incidents are forwarded to the concerned agencies and to provide them with assistance.

**Automatic Weather Stations (AWS):-**

1. 60 Automatic Weather stations have been installed throughout Mumbai to get real time weather parameters.
2. Weather Parameter data is refreshed after every 15 minutes.
3. The data is monitored, analyzed and the warnings are issued accordingly.

**Installation of Radar Level Transmitter:-**

1. Radar Level Transmitters are installed to monitor water level in rivers and lakes. It gives real time information in Disaster Control Room.
2. This helps in early evacuation of citizens from the vulnerable area. Radar level transmitters are installed at Dahisar, Poisser, Wakola, Mithi, Oshiwara rivers and Powai, Vihar Lake.

### **Disaster Management Website:-**

The website 'dm.mcgm.gov.in' shows following information: High Tide-Low Tide time table, Weather forecast obtained from India Metrological Department, Live weather parameters updated every 15 minutes, Traffic updates, Status of Local Trains, Status of Air Traffic, etc.

### **Disaster Management App:-**

MCGM launched Disaster Management App available on Android & IOS. Live rainfall data along with other weather parameters like Temperature, Pressure, Humidity, Wind speed, Traffic diversions and Weather forecast from IMD etc. are available which is refreshed in every 15mins. Also nearby Hospitals, Police Stations, Fire Stations and Ward offices are geo tagged and available for citizens. SOS button is provided for tracking distress victim. 20 video clips are available on mobile app for awareness of citizens.

### **Emergency Support Functions (ESF):-**

- 14 Emergency Support Functions have been identified as an integral part to carry out emergency response activities, including preparedness, response during the event, and immediate recovery.
- In the events of major disaster or emergency, the lead agency will take action as per SOPs and work in coordination with the support agencies and other ESFs to mobilize and deploy resources to the affected area.
- In peace time, each ESF Plan and prepare for emergencies through review of the planning assumptions, drills, table top exercises and preparation and reviews of the Standard Operating Procedures.
- Preparedness and planning activities are essentials to ensure adequate response and to identify areas of actions that would ultimately reduce disaster risk

### **ESF Identified are as follows:-**

Sr. No.	ESF	Lead Agency
1.	Communication	Disaster Management Department, MCGM
2.	Public Safety, Law & Order	Mumbai Police
3.	Fire Fighting	Mumbai Fire Brigade
4.	Search & Rescue	Mumbai Fire Brigade
5.	Transport	Transport Commissioner

6.	Public Health & Sanitation	Ex. Health Officer, MCGM
7.	Resource management	Disaster Management Department, MCGM
8.	Information Management	Public Relations Officer, MCGM
9.	Mass Care, Housing & Human Services	Education Officer, MCGM
10.	Relief Supplies	Collectors
11.	Energy (Power, Gas & Fuel)	Brihanmumbai Electric Supply & Transport Undertaking
12.	Utility Services	Dy.Municipal Commissioner (Special Engineering) MCGM
13.	Public Works & Infrastructure	Director, Engineering Services & Projects, MCGM
14.	Oil & Hazardous Material	Director, Industrial Safety & Health (DISH)

### **GIS based Command and Control System:-**

For quick and quality response and for developing decision support tool Disaster Management Department (DMD) had developed a computer based application of technology involving spatial and attribute information. The relevant baseline data is collected from various stakeholders. GIS has emerged as an effective tool in Disaster Management some geo spatial data and socio economic information is amalgamated for the better decision making and in handling a disaster or to plan for tackling disasters in scientific manner.

Prime objective of developing GIS is to help DMD for:

1. Pre-disaster Planning & Preparedness
2. Prediction and Early Warning
3. Decision Support System
4. Damage Assessment & Relief Management

GIS combines layer of information on various themes to enable DMD to take the most appropriate decisions under given circumstances.

- DMD generate maps both at micro and macro level indicating vulnerability to different extends under different threats perception.

- Locations likely to remain unaffected or remains comparatively safe could be identified.
- Alternated routes to relief camps and important locations in the event of disruptions of normal surface communication could be worked out.
- Smooth rescue and evacuations operation can be properly planned.

### **City Institute of Disaster Management & Research Centre (CIDM):-**

If main EOC at MHO is breaks down due to any reason, a backup control room has been setup at CIDM, Parel. This backup control is equipped with Hotlines, Wireless communication, HAM Radio, Video Wall, ESF, etc. similar to EOC at MHO. CIDM provides comprehensive training on disaster management and first responder to employee of MCGM/ Government / Private companies, School and College students, Medical practitioners, Police etc to aware them about scientific methods of disaster management.

3D Auditorium and an Art gallery is developed to show realistic information about of various disasters. The major objective of these facilities is to make visitors aware of disaster and its preparedness. Art gallery has interactive dioramas, display, photographs and information boards for awareness generation of various disasters.

### **Post Graduate Diploma in Disaster, Fire & Industrial Safety Management (PGDDFISM):-**

Considering the importance of Disaster Management and ever increasing impacts of Disasters, CIDM has commenced a one year PGDDFISM course in coordination with GICED and Mumbai University. This course offers scientific learning of concepts of natural and manmade disaster and techniques of every stage in DM. The Primary aim of this course is to educate personal from Government agencies, industries regarding appropriate response to the impending disaster and reduce the impact on mortality and economy.

### **City Disaster Response Force (CDRF):-**

On the basis of National Disaster Response Force (NDRF) at National level and State Disaster Response Force (SDRF) at State level, a City Disaster Response Force (CDRF) is establish at City level. The objective of formulating CDRF for Mumbai is to develop self sustainability for responding disasters like major fire, collapse structure, CBRN etc. The personnel appointed for CDRF are from existing Security Force, Mumbai Fire Brigade,

Doctors & Paramedics of MCGM are trained by National Disaster Response Force (NDRF). \_

**Central Complaint Registration System(CCRS):-**

On-line complaint management system (CPWM Module) has been started from 2000 to register civic complaints. Central Complaint Registration System is working 24X7. Civic Complaints pertain to MCGM are registered on phone no.1916 in the central control room and sent to the concerned department through on line system. Citizen can lodge their complaints online on MCGM portal, i.e. <http://portal.mcgm.gov.in>

Un-attempted complaints are automatically escalated to higher authorities such as Assistant Commissioner-Dy. Municipal Commissioner to Additional Municipal Commissioner and finally to Municipal Commissioner in a time bound manner.