

About this Book

Disaster Risk Management Master Plan

Disaster Risk Management (DRM) is based on the principle that the impacts of disasters can be reduced through appropriate preparedness, planning and management actions. The range of measures utilized in DRM policies, strategies and actions are ultimately meant to contribute to the safety and well-being of communities, at the same time protecting assets and development gains and improving services to population. The Disaster Risk Management Master Plan (DRMMP) is an analytical model based on international standards that will guide Mumbai in efficiently mainstreaming Disaster Risk Reduction (DRR) at the local level through a coherent set of policies, strategies and actions. The collaborative and participatory planning process adopted in the development of the DRMMP ensures consensus and ownership among the stakeholders and enables long term institutional sustainability. By adopting the DRMMP as a management tool for disaster risk management, Mumbai will be able to mobilize institutional and community resources and provide a coherent and efficient approach of actions prior, during and after a disaster.

Purpose of this Document

The purpose of this document is to define one component of the emergency management framework for the *Mumbai Emergency Operations Plan*. The Mumbai Emergency Operations Plan is composed of the *Basic Plan* and the *Emergency Support Functions*. This document explains the Emergency Support Functions (ESF's). The Emergency Support Function concept of operations is the internationally-recognized standard for modern, state-of-

ESF
1

ESF
2

ESF
3

ESF
4

ESF
5

ESF
6

ESF
7

ESF
8

ESF
9

ESF
10

ESF
11

ESF
12

ESF
13

ESF
14

the-art emergency operations plans and recognized the National Disaster Management Authority. The ESF concept provides a systematic and efficient system to organize the several stakeholders that are engaged in disaster risk management, to provide them with a methodology for sharing knowledge and resources, and for working efficiently to address the challenges of preparing, responding and recovering from any emergency situation. Through this process, it provides for effective inter-institutional and inter-sectoral coordination, thereby resolving one key impediment to disaster risk management. With time and regular practice, the stakeholders will develop close working relationships that yields benefits well beyond managing emergencies.

Emergency Support Functions

Emergency Support Functions (ESF) are the essentials of Emergency Management that provide the coordination mechanisms among the various agencies; they provide the organization and process to plan, manage and coordinate specific response and preparedness activities common to - any hazardous event that can result in an emergency from the most frequent one to the most extreme one. Each ESF is headed by a lead agency and is supported by identified support agencies. These ESFs form an integral part of the Emergency Operation Centers and each ESF would coordinate its activities from the Municipal Corporation of Greater Mumbai Emergency Operations Center (EOC).

In the Mumbai Emergency Operations Plan (MEOP), the Emergency Support Functions have been identified as an integral part to carry out emergency response activities, including pre-event planning and preparedness, response during the event, and immediate recovery. In the period

ESF
1
ESF
2
ESF
3
ESF
4
ESF
5
ESF
6
ESF
7
ESF
8
ESF
9
ESF
10
ESF
11
ESF
12
ESF
13
ESF
14

immediately after a major disaster or emergency requiring response, the lead agency will take actions to identify requirements and, work with the support agencies and other ESF's to mobilize and deploy resources to the affected area Mumbai in its response actions. On regular times, each ESF plans and prepares for emergencies through reviews 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.

The ESF's identified for Mumbai are as follows:

1. Communication
2. Public Safety and Law and Order
3. Fire Fighting
4. Search and Rescue
5. Transport
6. Public Health and Sanitation
7. Resource Management
8. Information Management
9. Mass Care Housing and Human Services
10. Relief Supplies
11. Energy (Power, Fuel, Gas)
12. Utility Services
13. Public Works and Infrastructure
14. Oil & Hazardous Material

Planning Process for the Development of the ESF's

In view of preparing the Emergency Support Function documents, a series of meetings, consultations and discussions took place between the Lead Agencies, Support Agencies, and the MCGM Disaster Management Unit, supported by EMI emergency management experts. These

consultations provided a reality-check from the various agencies engaged in each ESF and ensure that all those involved understand and contribute to the development of each ESF. The planning activities that will be undertaken in the next several months will provide an opportunity to test the existing ESF documents and to note elements that need refinement in the future. Blank sheets are provided at the end of each ESF for taking notes and to collect input from the stakeholders that would serve as a basis for the next review of the ESF's.

We thank all the agencies for participating in the preparation of the Emergency Support Function document and agreeing on the content and the implementation process.

Mr. S. S. Shinde
Jt. Comissioner
Municipal Corporation of Greater Mumbai

ESF
1
ESF
2
ESF
3
ESF
4
ESF
5
ESF
6
ESF
7
ESF
8
ESF
9
ESF
10
ESF
11
ESF
12
ESF
13
ESF
14

MUMBAI EMERGENCY OPERATIONS PLAN

EMERGENCY SUPPORT FUNCTIONS

Table of Content

About the book

- ESF -1 Communication**
- ESF -2 Public Safety and Law and Order**
- ESF -3 Fire Fighting**
- ESF -4 Search and Rescue**
- ESF -5 Transport**
- ESF -6 Public Health and Sanitation**
- ESF -7 Resource Management**
- ESF -8 Information Management**
- ESF -9 Mass Care, Housing and Human Services**
- ESF -10 Relief Supplies**
- ESF -11 Energy (Power, Fuel, Gas)**
- ESF -12 Utility Services**
- ESF -13 Public Works and Infrastructure**
- ESF -14 Oil & Hazardous Material**
- ESF Agencies' Matrix**
- Contact Details of Lead Agencies**
- Contact Details of Supporting Agencies**

Emergency Support Function

1

COMMUNICATION

Lead Agency:
Disaster Management Unit (MCGM)

Contact: Chief Officer
Disaster Management Unit, CCRS
Municipal Corporation of Greater Mumbai
Phone: 22694725/27
www.mcgm.gov.in
Email : mnarvekar.pmdrmp@gmail.com

Chapter - 1

Emergency Support Function 1 - COMMUNICATION

1.1 Agency

LEAD: Disaster Management Unit (Municipal Corporation Greater Mumbai).

SUPPORT:

- Department of Telecommunication.
- Home Department (Government of Maharashtra).
- India Meteorological Department.
- Media.
- Mumbai Police.
- Fire Brigade.
- Civil Defense.
- Videsh Sanchar Nigam Limited.
- Mahanagar Telephone Nigam Limited.
- Ham Radio
- FM Radio
- Mobile Operators
- Railways
- Army
- Navy
- Coast Guard
- Mumbai International Airport Private Limited.
- Doordarshan.
- Fisheries
- All India Radio.

1.2 Purpose

- To ensure the provision of telephonic and radio communication support to affected areas
- To activate warning systems and mobilize essential communicating systems needed for alert, warning and response.
- To support the restoration of communications

infrastructure facilitates the recovery of systems.

- To coordinate communication support to response efforts during incidents requiring a coordinated response.
- To provide communications support to other ESF's when their systems have been impacted.

1.3 Mission

- To minimize the impacts of emergencies and disasters on life, property, environment, and the economy through adequate and effective communication
- To be focal point of communication from disaster sites for various authorities and other ESF's particularly Information Management.

1.4 Legal Authorities

- Municipal Corporation of Greater Mumbai (Emergency Operation Centers).
- Mumbai Police.
- Mumbai Fire Brigade.
- India Meteorological Department.
- Fisheries, Civil Defense.
- Videsh Sanchar Nigam Limited.
- Mahanagar Telephone Nigam Limited.
- Doordarshan.
- Railways.
- Army.
- Navy.
- Coast Guard.
- All India Radio.

1.5 Scope

- To establish communication with, other EOC's and ESF's.
- To coordinate the establishment of required temporary communications and the restoration of permanent communications system.
- To review and update precautionary measures to protect

the equipment functionality and to provide appropriate instructions to all concerned agencies handling various communication equipments.

- To activate other ESF's as per requirement.
- To communicate relevant information to other ESF's as required for the management of emergency in the most effective and accurate manner.
- To coordinate establishment of required temporary communications.
- To coordinate restoration of permanent communications as early as possible.
- To develop plans and coordinate and manage communications support.

1.6 Policies

- All communication will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

1.7 Assumptions

- Initially, the emergency management focus is on coordinating life-saving activities concurrent with reestablishing control in the affected area.
- Restoration of communication facilities among the communications industry, may take time and means of communication may be severely restricted and/or saturated at time of disasters. Thus, alternate means of communication should be planned for and priorities should be established.
- Initial damage reports may be fragmented and provide an incomplete picture concerning the extent of damage to communications facilities, thus, rapid and competent damage assessment should be planned for Weather, damage to transportation systems and to infrastructure, and other environmental factors may restrict the ability

of suppliers to deploy mobile or transportable communications equipment in the affected area.

- The affected region's ability to communicate with the rest of the country may be impaired.
- Some key individuals may be isolated from their regional offices and/or operational centers.

1.8 General Concept of Operation

- As and when any emergency arises, every relevant stakeholder shall communicate the status to EOC.
- EOC shall consolidate the information to provide the updated status to the relevant agencies.
- EOC shall also communicate the ending of the emergency.
- All activation and deactivation should be done in consultation with DMU.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.

Prepare After-Action Report to identify lessons learnt and improvements needed.

1.9 Organization Concept of Operations

- Will be operational 24X7.
- Communicate to other ESF's as per requirement.
- Use mass media and other means to communicate with citizens in affected areas in coordination with other ESF.
- Make use of multi-channel communication systems including telephone, wireless system.
- Maintain an update database of resources, contacts,

VIP's, first responders, key utilities, and others.

- Document emergencies and carry out their periodic review to update SOP.
- To undertake research and training in order to improve competency in the field.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

1.10 Responsibilities and Actions

- Identify operational communication facilities in affected areas.
- Identify damaged communication facilities.
- Identify communication facilities that need to be transported to affected sites to establish emergency operational services.
- Identify actual and planned action of private communication operators towards operationalizing their own facilities in affected areas.
- Establish temporary communication facility through mobile exchanges on priority, for use by EOC and responding agencies of all ESFs.
- Establish temporary communication facilities for public use.
- Coordinate actions with other ESF's for restoration of communication.
- Coordinate communication requirements of responding agencies.
- Extend support to private communication providers and vice versa.
- Restore communication facilities after disaster.
- Provide emergency communication for response to all agencies and link EOCs and other control rooms.
- Provide communication facility to communities.
- Coordinate the requirements of temporary communication in affected areas.

1.11 Activation

- Being the first ESF to respond to any disaster EOC as a part of DMU is always active 24 X 7.
- Support may be activated on the request of other ESF through the EOC when an emergency condition exists and requires the support of communication.
- Upon activation, the agency representative will implement existing SOPs. Deployment of personnel and resources will take place within the framework of the EOP and control decision-making process as per needs.

1.12 Response on Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incident.
- The representative of this ESF will brief other ESF representatives upon arrival and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available communication means.
- Maintain complete logs of actions taken, reports of communication resource needs and capabilities.

1.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.

NOTES

Emergency Support Function

2

PUBLIC SAFETY AND LAW & ORDER

**Lead Agency:
MUMBAI POLICE**

Contact : Deputy Commissioner of Police (Operation)
MUMBAI POLICE
Phone:22641440
Fax:
www.
Email Id:maincontrol@mtnl.in.net

Chapter - 2

Emergency Support Function 2 - PUBLIC SAFETY AND LAW & ORDER

2.1 Agency

LEAD: MUMBAI POLICE

SUPPORT:

- Maharashtra Police.
- Collectorate
- Paramilitary Forces.
- Civil Defense.
- Jail Authority.
- Army, Navy
- Air force.
- Coast Guard
- Maharashtra Security Board. (Social Welfare)
- State Security Corporation.
- Director General of Civil Aviation.
- Bhabha Atomic Research Center, Protocol Dept. (Government of Maharashtra).
- Non-Governmental Organization. (AADM)
- Home Guard.
- Mumbai International Airport Private Limited.
- Bureau of Civil Aviation Security. (BCAS)
- Brihan Mumbai Electricity Supply & Transport.
- Railways
- Maharashtra Maritime Board.
- NSS
- National Cadet Corporation (NCC).

- Road Safety Patrol. (RSP)

- Municipal Corporation of Greater Mumbai.
- All India Radio

2.2 Purpose

- To provide for the safety and security of citizens and property during an incident.
- To establish command, control and coordination of law enforcement personnel and to support all emergency operations.
- To establish system for safety of people who may be displaced or relocated to temporary locations.

2.3 Mission

- Public Safety and Law and Order resources from agencies in preparing for, responding to and recovering from incidents which impact the life and property.

2.4 Legal Authorities

- Mumbai Police
- Maharashtra Police.
- Collectorate
- Paramilitary Forces.
- Jail Authority.
- Army, Navy
- Air Force.
- Coast Guard,
- Civil Defense.
- Bhabha Atomic Research Center.
- Directorate General of Civil Aviation.
- Bureau of Civil Aviation Security. (BCAS)
- Brihan Mumbai Electricity Supply & Transport.
- Railways
- Maritime Board.
- Home Guard
- Municipal Corporation of Greater Mumbai.

2.5 Scope

- Provides a mechanism for coordinating and providing

support to authorities; and/or support to other ESFs, consisting of law enforcement, public safety, and security capabilities and resources during potential or actual incidents requiring a coordinated response.

- Supports incident management requirements including, but not limited to, force and critical infrastructure protection, security planning and technical assistance, technology support, and general law enforcement assistance in both pre incident and post-incident situations.

2.6 Policies

- All public safety and law and order activities and services will be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- All public safety and law and order activities and services will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

2.7 Assumptions

- Any threat or incident may occur at any time with little or no warning, may involve single or multiple geographic areas, may result in mass casualties and may involve varying degrees of property damage.
- The predicted or actual incidents add a complicating dimension to its management, depending on location-demographic and geographic.
- In the case of a threat, there may be no incident site and no external consequences.
- Any incident, particularly involving a large population center having nuclear, radiological, biological, or chemical materials, will have major consequences that can overwhelm the capabilities of the government to respond and may seriously challenge existing response

capabilities.

- An incident may cause extensive damage to the surrounding jurisdictions, depriving mobilization of resources in support of coordinated response activities.
- Movement of resources into and evacuees out of the impacted area will be predicated on and require the identification of all surviving and available methods and routes of transportation.
- Damaged roads, vehicles, facilities, equipment and damaged or disrupted communications could significantly hamper emergency public safety and law and order support.
- Support requirements will likely exceed local capabilities and outside assistance will be required and must be planned for to support emergency operations and/or a large-scale evacuation.
- The general public will receive and understand emergency public information and warning related to evacuation.
- The majority of the public will act on its own and evacuate areas promptly when advised to do so.
- Many people may refuse to evacuate regardless of warnings.
- The security to be provided for number of shelter sites would be limited.
- The principal mode of transportation for evacuees will be private as well as public transport.
- Certain areas or special populations may need additional deployment of manpower.
- Roads and highways will become congested during incident and would hamper the movement of traffic and access for emergency site/ vehicles.

2.8 General Concept of Operation

- Deployed when public safety and law and order is in danger and resources are needed to support incident operations. This includes predictions, threat or pre incident as well as post incident situations.

- Assesses and responds to requests for public safety and law and order resources to include law enforcement resources and planning or technical assistance.
- Manages support by coordinating other resources related to public safety and law and order to preserve life, protect property and mobilize security resources and technologies and other assistance to support response operations.
- Coordinates to determine public safety and law and order support requirements and to jointly determine resource priorities.
- Maintains communication with supporting agencies to determine capabilities, assess the availability of resources, and track resources that have been deployed.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

2.9 Organization Concept of Operations

- The Control Room / EOC will be used to coordinate law enforcement, investigative, and intelligence activities for the numerous special events, threats, or incidents that occur each year that do not escalate to incidents that require coordination of the overall response.
- There are agencies other than this ESF that may have authorities, resources, capabilities, or expertise required to support law enforcement and investigation operations. These may be requested to participate in

planning and response operations, and may be requested to designate liaison officers and provide other support as required.

- Under emergency response conditions, this ESF will respond to protect life and property.
- The ESF will control traffic to allow only authorized personnel and equipment into the incident area.
- This ESF will communicate with all units assigned.
- This ESF will establish a perimeter around a damaged area to keep out unauthorized personnel if the size and complexity of a disaster or incident operation requires such a perimeter.
- Coordinate with EOC for personnel and equipment available for events involving hazardous chemicals, biological, radiological, nuclear, or other materials affecting public health and safety.
- Coordinate with other ESF's to monitor response to any release of hazardous chemicals or biological materials that might endanger public health and safety.
- Gathering and reporting of information concerning injuries and fatalities to the EOC.
- Coordinate arrangements for mortuary services.
- Provide necessary communications capability through the Emergency Operation Center (MCGM).
- Assist in preparation of any comprehensive report following the incidence.
- Deployment of personnel and resources will take place within the framework of Mumbai Emergency Operations Plan.
- This ESF has primary responsibility for security, therefore they are typically the first line of response for public safety and law and order.
- In most incident situations, lead agency has primary authority and responsibility for law enforcement activities.
- In large-scale incidents, additional resources should first be obtained through the activation of support agencies, to perform law enforcement, security, and/or public

safety functions.

- Coordination of public safety and security among agencies, as well as among other ESFs, to ensure that communication and coordination processes are consistent with stated incident management missions and objectives.
- In the event that the resources of this ESF are insufficient to adequately respond to a civil disturbance or other serious law enforcement emergency, military assistance may be requested.
- On deployment of any Military Assistance, use it to enforce law or to protect constitutional rights. Pursuant to law, the Central Government will ultimately determine whether to use the Armed Forces to respond to a domestic law enforcement emergency. Procedures for coordinating Ministry of Defence (MOD) responses to law enforcement emergencies are set forth in MOD's civil disturbance contingency plans.

Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

2.10 Responsibilities and Actions

- Maintaining law and order that includes crowd and riot control. Carrying out preventive arrests where required.
- Facilitating orderly conduct of relief operations and management of relief facilities.
- Supports other ESFs for preparedness activities and conducts evaluation of operational readiness, including a roster and description of public safety and security activities.
- Maintains close coordination during operations between the affected areas, other ESFs, as required.
- Obtains initial situation assessment from field units and determines appropriate management response to anticipated or current requests for assistance.
- Obtains and distributes incident contact information to supporting agency coordinators for emergency responders.

- Assesses requests before committing resources, and ensures responding agencies are provided with information on known hazards, mission requirements, appropriate vaccinations, credentials, and personal protective equipment to operate in the environment to which they are assigned.
- Provide Experts on explosives, fire investigators, explosives detection and accelerant detection canine handler, medicos, crisis negotiators, intelligence officers, explosives enforcement officers, industry operations investigators, fire research engineers, forensic chemists, forensic auditors, and support personnel in many specialty areas.
- Other specialized capabilities include National Disaster Response Force (NDRF) that conduct high-risk enforcement operations; investigators at the scene of significant explosives and fire incidents; a fleet of trucks that allow the NDRF to be fully equipped for the forensic examination of explosives and fire scenes; and Mobile Laboratories and Command & Control vehicles. EOC will deploy the necessary and available resources to provide the appropriate response.
- Each support agency maintains its authority and is responsible, when appropriate and according to resource availability, for providing personnel, equipment, facilities, technical assistance, and other support as required.
- Provide periodic reports, as requested, regarding agency assets and response capabilities.
- Provide technical subject-matter expertise, data, and staff support for operations, as may be requested by the lead agency.
- Ensures that capabilities are in place to provide an appropriate response facility emergency and to nuclear or radiological emergencies.
- Coordinates with public and private-sector entities in protecting critical infrastructure and telecommunications systems.

- Ensure the security in all modes of transportation, transportation infrastructure, and the people and goods in transit provides transportation security screening, inspection, vulnerability assessments, and law enforcement services throughout the transportation system.

2.11 Activation

- On receipt of the call from citizen/ EOC and other agencies.
- Upon determination by the EOC of an impending or actual incident posing a significant threat, the EOC will request lead agency to activate the ESF.
- Different level of activation will be operationalized depending on the nature and severity of the incidence or likely incidence.

2.12 Response on Activation

- Turns out required resources as per need, and controls the situation by augmenting men and machinery.
- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- The lead agency shall update support agencies and monitor activities.
- Determine the needs depending on the nature and severity of the incidence.
- Asses the available resources and the possible need for additional resources.
- Maintain complete logs of actions taken, reports, needs and capabilities.

2.13 Deactivation

- Partial deactivation would occur based upon the extent

of the current response and recovery actions and at the discretion of the Lead Agency.

- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

3

FIRE FIGHTING

**Lead Agency:
FIRE BRIGADE**

Contact : Chief Fire Officer
Mumbai Fire Brigade, M.C.G.M.
Phone:23076111
Fax:23086183
www.

Email Id: sgaminmumbaifir@indiatimes.com

Chapter - 3

Emergency Support Function 3 FIRE FIGHTING

3.1 Agency

LEAD: Mumbai Fire Brigade

SUPPORT:

- Director of Fire Services. (Government of Maharashtra).
- Mumbai Police
- Hydraulic Engineer.
- Brihan Mumbai Electricity Supply & Transport.
- Reliance Infrastructure.
- Maharashtra State Electricity Distribution Corporation Limited.
- Mahanagar Gas Ltd.
- Railways.
- Mumbai International Airport Private Limited.
- Civil Defense.
- Mobile Column.
- Mumbai Port Trust, Home Guard.
- Navy
- Bhabha Atomic Research Center.
- Hindustan Petroleum Corporation Limited.
- Bharat Petroleum Corporation Limited.
- Tata Power Company.
- Asian Institute of Gemological Sciences.
- Maharashtra Industrial Development Corporation.
- National Disaster Response Force.
- Thane Fire Service.
- Mira Bhayandar Municipal Corporation.
- Navi Mumbai Municipal Corporation. (N.M.M.C.)
- Maharashtra Housing and Area Development Authority.
- Mumbai Metropolitan Region Development Authority.

- M.A.R.G.
- Disaster Management Unit.

3.2 Purpose

- To provide life and property saving assistance to manage fire incidences following natural or man-made emergencies.
- To establish policies for the effective co-ordination for management of fire incidences resulting from natural as well as man-made events.
- To establish policies for the effective co-ordination during rescue operation resulting from natural as well as man-made emergencies.

3.3 Mission

- To provide organized fire service to the citizens.
- To coordinate management of fire incidences in complex emergencies that may also require other ESFs at the location of the event.

3.4 Legal Authorities

- Director Fire Services (Government of Maharashtra).
- Mumbai Police.
- Brihan Mumbai Electricity Supply & Transport.
- Maharashtra Industrial Development Corporation.
- Mahanagar Gas Limited.
- Bhabha Atomic Research Center.
- Hindustan Petroleum Corporation Limited.
- Bharat Petroleum Corporation Limited
- National Disaster Response Force.
- Thane Fire Service.
- Maharashtra Housing And Area Development Authority.
- Mumbai Metropolitan Region Development Authority.
- Civil Defense.
- Railways.
- Mumbai Port Trust (MbPT)
- Home Guard,

- Mira-Bhayandar Municipal Corporation.
- Navi Mumbai Municipal Corporation.
- Municipal Corporation of Greater Mumbai.

3.5 Scope

- To manage firefighting activities like fire detection, fire suppression, rescue, evacuation and hazardous materials incidents.
- To coordinate firefighting activities with other ESF's.
- To provide personnel, equipment and supplies during firefighting operations.
- To assess damage due to fire.

3.6 Policies

- All firefighting activities and services will be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- All firefighting activities and services will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

3.7 Assumptions

- Normally available firefighting resources will be difficult to obtain and utilize because of massive disruption of communication, transportation, utilities, and water system.
- If fire occurs coincidentally with an earthquake, or as the result of another significant event, communications will be interrupted.
- Radio communications will be interrupted.
- If an earthquake occurs, vehicle access will be hampered by such occurrences as bridge failures, road damage and blockage of roads making conventional travel to the fire location difficult or impossible.

- Many of the resources commonly available for use in fighting large fires will be scarce or unavailable.
- Having current mutual aid agreements already in place will assist mutual aid response.
- Fire has the potential to spread rapidly, cause extensive damage, and pose a serious threat to life, property, and the environment.
- Under the worst conditions, fire will occur as a result of another disastrous event such as an earthquake, causing fire at multiple locations which may place extraordinary demands on resources.
- Agencies of this ESF respond daily to fire events which threaten life and property however, daily events may quickly escalate in a disastrous situation.
- Limited communications capabilities may create overwhelming confusion and ineffective fire response strategies.
- A shortage of resources may equate to more severe damages.
- Firefighting techniques, equipment, and communications should be compatible with supporting agencies.
- Fire agencies have established compliance to firefighting standards and developed policies and procedures.
- Fire service resources may be requested to respond to medical emergencies, search and rescue missions, and aid in dissemination of warning to the public of impending disaster.

3.8 General Concept of Operation

- This ESF will manage and coordinate firefighting activities.
- Prepare plan to utilize resources of personnel, equipment, and supplies in the most effective manner.
- The control and direction of this ESF must be followed as long as they are in command.
- The incident command post and staging areas are to be located appropriately.

- Direct operations from a safe distance, with capability of escape.
- Coordinate the availability of resources required at site.
- Communications will be established from the incident site with other tactical operations, as well as the Emergency Operations Centre (EOC).
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed

3.9 Organisation Concept of Operations

- The lead agency will take charge of and direct the work of firefighting wherever required.
- Coordination with, and support of, other ESF's firefighting operation shall be accomplished through this ESF in coordination with EOC.
- On receipt of call turns out required resources as per need, and controls the situation by augmenting men and machinery.
- Close coordination and planning between the agencies is accomplished through the lead agency.
- Fire fighters are provided training and regular practice to effectively enhance their firefighting skills.
- The implementation of mutual aid among the departments is in place for large fires.
- Update Mutual Aid Agreements, Fire Resource Listings and mitigate risk.

- This ESF maintains equipment to be in a state of readiness for operations.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

3.10 Responsibilities and Actions

- Liaisoning, coordinating and reporting with EOC and support agencies.
- Assessment and reassessment of the situation and deployment of resources as per requirement.
- Carry out firefighting and rescue operations. To assess damage due to fire.

3.11 Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incident.
- On receipt of the call from citizen/ EOC/ Police control and other agencies.
- Support may be activated when an emergency condition exists and requires the support of Resources.
- Upon activation the Lead Agency representative will implement existing SOPs.

3.12 Response on Activation

- Turns out required resources as per need, and controls the situation by augmenting men and machinery.
- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available resources.
- Maintain complete logs of actions taken, reports of resources needs and capabilities.

3.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

4

SEARCH AND RESCUE

**Lead Agency:
Mumbai Fire Brigade
(MCGM)**

Contact : Chief Fire Officer
Mumbai Fire Brigade, M.C.G.M.
Phone:22620251
Fax:
www.mcgm.gov.in
Email Id:ganesh.puranik@gmail.com

Chapter - 4

Emergency Support Function 4 SEARCH AND RESCUE

4.1 Agency

LEAD: Mumbai Fire Brigade

SUPPORT:

- Director of Fire Services. (Government of Maharashtra).
- Mumbai Police, Director (E.S. &P.)
- Municipal Corporation of Greater Mumbai.
- Brihan Mumbai Electricity Supply & Transport.
- Reliance
- Maharashtra State Electricity Distribution Corporation Limited.
- Mahanagar Gas Limited.
- Railways
- Mumbai International Airport Private Limited.
- Civil Defence
- Mobile Column
- Mumbai Port Trust. (MbPT)
- Home Guard
- Navy
- Bhabha Atomic Research Center.
- Hindustan Petroleum Corporation Limited.
- Bharat Petroleum Corporation Limited.
- Tata Power Company
- Asian Institute of Gemological Sciences
- Maharashtra Industrial Development Corporation.
- National Disaster Response Force.
- Thane Fire Service.
- Mira Bhayander Municipal Corporation.
- Navi Mumbai Municipal Corporation.
- Thane Municipal Corporation.

- Maharashtra Housing And Area Development Authority.
- Mumbai Metropolitan Region Development Authority.
- MARG
- Disaster Management Unit.
- Municipal Corporation of Greater Mumbai.
- S.D.R.F.
- P.E.A.T.A.

4.2 Purpose

- To provide life and property saving assistance during search and rescue operations resulting from natural as well as human caused events.
- To establish policies for effective co-ordination during search and rescue operations resulting from natural as well as human caused events.
- To assist to coordinate management of search and rescue in complex emergencies that may also require other ESFs at the location of the event.

4.3 Mission

- To provide organized search and rescue service to the trapped persons.
- To coordinate management of search and rescue incidences in complex emergencies that may also require other ESFs at the location of the event.

4.4 Legal Authorities

- Director Fire Service (Government of Maharashtra).
- Mumbai Police, Municipal Corporation of Greater Mumbai.
- Brihan Mumbai Electricity Supply & Transport.
- Civil Defence, Railways.
- Home Guard.
- National Disaster Response Force.
- S.D.R.F.,
- Maharashtra State Electricity Distribution Corporation Limited.

- Mumbai Port Trust.
- Maharashtra Industrial Development Corporation.
- Bhabha Atomic Research Center.
- Navy, Home Guard.
- Thane Fire Service.
- Mira-Bhayander Municipal Corporation.
- Navi Mumbai Municipal Corporation.
- Thane Municipal Corporation.
- Maharashtra Housing and Area Development Authority.
- Mumbai Metropolitan Region Development Authority.

4.5 Scope

- To manage search and rescue activities like search, rescue, extrication, stabilization, evacuation and transportation.
- To coordinate search and rescue activities with other ESF's.
- To provide personnel, equipment and supplies during search and rescue operations.

4.6 Policies

- All search and rescue activities will be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- All search and rescue activities will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

4.7 Assumptions

- Many of the resources commonly available for use in search and rescue will be scarce or unavailable.
- Having current mutual aid agreements already in place will assist mutual aid response.

- Collapsed structures may cause extensive damage, and pose a serious threat to life, property, and the environment.
- Under the worst conditions, structure collapse will occur as a result of another disastrous event such as an earthquake, requiring search and rescue at multiple locations which may place extraordinary demands on resources.
- Agencies of this ESF respond daily to search and rescue events which threaten life and property however, daily events may quickly escalate in a disastrous situation.
- Limited communications capabilities may create overwhelming confusion and ineffective search and rescue response strategies.
- A shortage of resources may equate to more severe damages.
- Search and rescue techniques, equipment, and communications should be compatible with supporting agencies.
- Search and rescue have established compliance to search and rescue standards and developed policies and procedures.
- Search and rescue resources may be requested to respond to medical emergencies, search and rescue missions, and aid in dissemination of warning to the public of impending disaster.
- Normally available search and rescue resources will be difficult to obtain and utilize because of massive disruption of communication, transportation, collapse of structure and utilities.
- In case of structural collapse coincidental with an earthquake, or as the result of another significant event, communications will be interrupted.
- Radio communications will be interrupted.
- If a major earthquake occurs, vehicle, air and rail access will be hampered by such occurrences as bridge failures and landslides, making conventional travel to the

structural collapse location extremely difficult or impossible.

- Many of the resources commonly available for use in search and rescue will be scarce or unavailable.

4.8 General Concept of Operation

- This ESF will manage and coordinate search and rescue activities.
- Prepare plan to utilize resources of personnel, equipment, and supplies in the most effective manner.
- The control and direction of this ESF must be followed as long as they are in command.
- The incident command post and staging areas are to be located appropriately.
- Direct operations from a safe distance, with capability of escape.
- Coordinate the availability of resources required at site.
- Communications will be established from the incident site with other tactical operations, as well as the Emergency Operations Centre (EOC).
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (d) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (e) A prioritized listing of significant actions that will initiate to provide operational support.
 - (f) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

4.9 Organization Concept of Operations

- The lead agency will take charge of and direct the work of search and rescue wherever required.
- Coordination with, and support of, other ESF's search

and rescue operation shall be accomplished through this ESF in coordination with EOC.

- On receipt of call turns out required resources as per need, and controls the situation by augmenting men and machinery.
- Close coordination and planning between the agencies is accomplished through the lead agency.
- Fire fighters are provided training and regular practice to effectively enhance their search and rescue skills.
- The implementation of mutual aid among the departments is in place for large structural collapse.
- Update Mutual Aid Agreements, search and rescue Resource Listings and mitigate risk.
- This ESF maintains equipment to be in a state of readiness for operations.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

4.10 Responsibilities and Actions

- Liaisoning, coordinating and reporting with EOC and support agencies.
- Assessment and reassessment of the situation and deployment of resources as per requirement.
- Carryout search and rescue operations.

4.11 Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incident
- On receipt of the call from citizen/ EOC/ Police control and other agencies.
- Support may be activated when an emergency condition exists and requires the support of Resources.
- Upon activation, the Lead Agency representative will implement existing SOPs.

4.12 Response on Activation

- Turns out required resources as per need, and controls the situation by augmenting men and machinery.

- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available resources.
- Maintain complete logs of actions taken, reports of resources needs and capabilities.

4.13 Deactivation

- Deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
-
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

5

TRANSPORT

Lead Agency:
Transport Commissioner

Contact :Dy. Transport Commissioner
Office of Transport Commissioner
Phone:26550932/33/34
Fax:
www.

Email Id:dycommr.enf2@gmail.com/u.ulsi@rediffmail.com

Chapter - 5

Emergency Support Function 8 Transport Commissioner

5.1 Agency

LEAD: Transport Commissioner

SUPPORT:

- Brihan Mumbai Electricity Supply & Transport.
- Railways.
- Solid Waste Management.
- Maharashtra State Road Transport Corporation.
- Taximen Union.
- Auto Rickshaw Union.
- Water Tanker Association.
- Truck Association.
- Private Bus Association.

5.2 Purpose

- To coordinate the use of transportation resources to support the needs of emergency responding agencies requiring transportation capacity to perform task of emergency response, recovery and assistance.
- To establish procedures for using transportation resources in response and recovery efforts during an incident, including but not limited to transportation for evacuees, transportation of responders, and transportation of relief supplies.
- Transportation support entails utilizing and/or providing land, air, rail, watercrafts, or other resources for emergency response or assistance operations, as well as coordinating resources to facilitate an effective, efficient and appropriate response/support.

5.3 Mission

- To coordinate and organize transportation resources from government agencies, and from private owners in preparing for, responding to and recovering from incidents which impact the citizens of the Mumbai.

5.4 Legal Authorities

- Brihan Mumbai Electricity Supply & Transport.
- Railways.
- Municipal Corporation of Greater Mumbai.
- Maharashtra State Road Transport Corporation.

5.5 Scope

- Management and coordination of transportation activities to support the emergency response and relief efforts.
- Establishing priorities and/or allocating of transportation resources, processing of all transportation requests, managing air and marine traffic, determining the priority of highway repair, conducting damage assessment, and coordinating emergency management activities with local jurisdictions, State agencies, neighbouring cities and provinces.
- Processing and overall coordination of requests for transportation support.
- Obtaining transportation services and provides visibility of transportation assets into and out of affected areas.
- Assessing the damage to transportation infrastructure, analyzing the effects of the disaster on the transportation system, monitoring the accessibility of transportation capacity and congestion in the transportation system, and implementing management controls, as required.
- Assisting in the design and implementation of alternate transportation services, such as mass transit systems, to temporarily replace system capacity lost to disaster damage.

- Coordinating the clearing and restoration of the transportation resources. Responsibility for transportation needs assessment and documentation rests with emergency managers.

5.6 Policies

- All transport activities and services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- Transportation planning will consider utilizing public transportation capacity, as well as capacity owned or operated by private agencies.
- Transportation planning will recognize State transportation policies and plans used to control the movement of relief personnel, equipment, and supplies, as well as State-established priorities for determining precedence of movement.

5.7 Assumptions

- An incident may cause extensive damage to the Mumbai and/or surrounding jurisdictions, requiring activation of transportation assets in support of coordinated response activities.
- Movement of resources into and evacuees out of the impacted area will be predicated on and require the identification of all surviving and available methods and routes of transportation.
- Damaged roads, vehicles, facilities, equipment and damaged or disrupted communications could significantly hamper emergency transportation support.
- Emergency transportation support requirements will likely exceed local capabilities and outside assistance will be required and must be planned for to support local emergency operations and/or a large-scale evacuation.
- The general public will receive and understand official emergency public information and warning related to evacuation.
- The majority of the public will act on its own and evacuate areas promptly when advised to do so.

- Some people may refuse to evacuate regardless of warnings.
- Most evacuees will seek shelter with relatives or friends rather than accept public shelter.
- The principal mode of transportation for evacuees will be private as well as public transport.
- Some people will lack transportation.
- Some residents that are ill or disabled may require vehicles with special transportation capabilities.
- Institutional residents will be evacuated by the organization responsible for the institution, e.g. local hospitals, jails, assisted living quarters, schools, daycare centers, etc., or the institution will make prior arrangements to have the residents evacuated, when required.
- Certain areas of Mumbai, or special populations within Mumbai, may need additional time to accomplish an evacuation.
- It may take several days to complete a mass evacuation out of Mumbai.
- Roads and highways will become congested during a large-scale evacuation and hamper the movement of traffic and access for emergency vehicles.
- Law enforcement will provide the majority of traffic control on major evacuation routes within Mumbai.

5.8 General Concept of Operation

- The responsibility for the operation of the transportation service is divided into two distinct areas consisting of Public & Private.
- This ESF has the responsibility for directing, controlling and coordinating all transportation, transportation facilities and resources and establishing procedures for meeting the transportation industry needs.
- Determines transportation requirements by establishing priorities and coordinating with adjoining cities in the joint use of transportation.
- All requests for transportation will be made to this ESF. If

this ESF is unable to supply the requested transportation, then request for assistance will be made to ESF 7.

- Transportation not allotted by this ESF will remain the responsibility of the owner.
- Transportation for any large evacuation of local citizens or reception of citizens of another city and assignment of staging areas will be coordinated through this ESF.
- At the time of an incident demanding an evacuation, estimates will be made of the people with special needs requiring transportation, staging points, central pick up spots, and refueling points.
- All users of transportation should use established shipper-carrier relationships to move materials into a disaster area and, if possible, include transportation as part of each contract for acquisition of goods.
- The establishment of pre-disaster contracts and arrangements for transportation is encouraged. Requests for assistance should be considered only after such arrangements are no longer available or not feasible. However, it is essential to the orderly flow of resources to advise all transportation movements arranged directly.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

5.9 Organization Concept of Operations

- Review and update disaster procedures as they relate to ESF 5 activities.
- Monitor and manage the development and operation of transportation systems for the MCGM Emergency Operations Center.
- Prepare and maintain current list of personnel, equipment and their locations needed to carry out responsibilities as assigned under ESF 5.
- Develop Continuity of Operations Plans to ensure uninterrupted operations during disasters.
- Prepare and maintain ESF administrative and financial procedures as required to properly document activities of the ESF during activations.
- Develop and maintain standing contracts and mutual aid agreements that allow for an equipment surge to meet the demands of evacuation transportation needs during disasters and restoring transportation infrastructure that has been damaged.
- Activate contracts that allow for an equipment surge to meet the demands of evacuation transportation needs during disasters and maintaining and re-establishing transportation infrastructure that has been damaged.
- Emergency Equipment Rental Emergency equipment rental includes equipment needed for flood relief work and other natural disaster work. It would include slip and slide work where it is of the magnitude that would stop traffic or cause an intolerable delay to the motorist. Emergency equipment rental shall be accomplished in accordance with emergency purchase regulations and procedures established.
- Requests for mutual aid and assistance shall be submitted in accordance with the plan prepared by Disaster Management Unit.
- Coordinate assistance in the removal of debris and the restoration of transportation infrastructure as required.
- Cleanup and restoration work by departmental staff following floods, or other disasters will normally be

restricted to the Mumbai.

- Priority shall be given to those maintenance repairs of an urgent nature on the more heavily traveled roads and to proceed as rapidly as possible to get patching completed and the road surface restored. Roads to be repaired first by maintenance staff are those carrying the greatest volume of high-speed traffic. Repair work will follow as quickly as possible on all other roads.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

5.10 Responsibilities and Actions

- Will identify and coordinate all relevant public and private agencies to repair and restore access into the disaster area(s), with priority for repairs/restoration given to those more heavily traveled roads and to proceed as rapidly as possible.
- Operational control remains the same during emergency situations as during normal activities; however, operations may require 24-hour coverage, and a central point of overall coordination. Prepare to assist in lengthy operations that start in response and continue through recovery and involve cleanup activities and return of resources.
- Has primary responsibility for providing and assigning emergency transportation resources to requesting organizations and coordinating their operations as directed through the MCGM EOC and for the maintenance and repair of primary transportation infrastructure throughout Mumbai.
- Schools, colleges & other education institutes assume responsibility for protection of students, staff, equipment and facilities, as well as the safe transportation of students.
- The Board of Education will develop and maintain a database of available transportation resources owned and maintained by them in Mumbai and in surrounding areas.

- In the event that these assets are required, they will assist in accessing and utilizing these resources for emergency transportation needs.
- Responsible for establishing and maintaining public transportation and resources.
- In the event that these assets are required, the Transit Service will assist in accessing and utilizing these resources for emergency transportation needs.
- Responsible for transportation of sick or injured persons in need of medical attention.
- In the event that these resources are required, the Ambulance Service will assist in utilizing these resources for emergency transportation for persons with special needs.

5.11 Activation

- Different level of activation will be operationalized depending on the nature and severity of the incidence.
- The activation is initiated on receipt of the emergency call.
- Upon determination by the Disaster Management Unit (DMU) staff of an impending or actual incident requiring evacuation capabilities or posing a significant threat to Mumbai transportation infrastructure, the Duty Officer or Operations Officer will request agency representatives to implement Transportation activities from the EOC.
- Transportation may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the support of Transportation.
- Upon activation, the Transportation representative will implement existing SOPs.
- Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process.

5.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine transportation needs and available resources.
- Maintain complete logs of actions taken, reports, and transportation resources needs and capabilities.

5.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

6

PUBLIC HEALTH AND SANITATION

**Lead Agency: Executive Health
Office (MCGM)**

Contact : Executive Health Officer
Municipal Corporation of Greater Mumbai
Phone:24135467

Fax:

www.mcgm.gov.in

Email Id:guirishambe@yahoo.com

Chapter - 6

Emergency Support Function 6 PUBLIC HEALTH AND SANITATION

6.1 Agency

LEAD: Executive Health Office (Municipal Corporation of Greater Mumbai).

SUPPORT:

- Director of Health Services. (Government of Maharashtra).
- Director (M.E. & P.H.)
- Municipal Corporation of Greater Mumbai.
- Mumbai Police
- Solid Waste Management.
- Sewerage Operation.
- Red Cross
- St John Ambulance
- Non-Governmental Organization.
- Medicine Stockiest Association.
- Hydraulic Engineer
- Private hospitals
- Maharashtra Pollution Control Board.
- Director of Medical Education (Government of Maharashtra).
- Association of Medical Consultants
- Railway Hospitals
- Mumbai port Trust (MbPT) Hospitals
- Indian Medical Association. (IMA)
- Food and Drugs Administration.
- Controller of Rationing, Drug Controller.

6.2 Purpose

- To coordinate assistance in response to a public health and medical disaster, potential or actual incidents requiring a coordinated response, and/or during a developing potential health and medical emergency.
- To respond to medical needs associated with mental health, behavioural health, and substance abuse considerations of incident victims and response workers.
- To cover the medical needs of members of the “at risk” or “special needs” population it includes a population whose members may have medical and other functional needs before, during, and after an incident.

6.3 Mission

- To coordinate and organise Public Health and Sanitation in preparing for, responding to and recovering from incidents which impact the citizens of Mumbai.

6.4 Legal Authorities

- Director of Health Services (Government of Maharashtra).
- Director of Medical Education (Government of Maharashtra).
- Municipal Corporation of Greater Mumbai.
- Police.
- Maharashtra Pollution Control Board.
- Railways.
- Controller of Rationing.

6.5 Scope

- Assessment of public health/medical needs.
- Health surveillance.
- Medical care personnel.
- Health/medical/veterinary equipment and supplies.
- Medicine and food supplies.
- Patient evacuation.
- Patient Care.
- Safety and security of drugs, biologics, and medical

devices.

- Blood and blood products.
- Food safety and security.
- All-hazard public health and medical consultation, technical assistance, and support.
- Behavioural Health Care.
- Public health and medical information.
- Vector control.
- Potable water/waste-water and solid waste disposal.
- Disposal of dead bodies.
- Biomedical waste disposal.
- Mass fatality management, victim identification, and decontaminating the remains.
- To establish portable, modular hospital units.

6.6 Policies

- All health care and sanitation services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- All health care and sanitation services will be provided in accordance with existing local statutes, rules, and regulations.
- Continuity of Operations Plans (COOP) for emergencies will be established by each agency of a health care and sanitation services.

6.7 Assumptions

- No guarantee of a perfect response system is expressed or implied by this ESF however every reasonable effort will be made to respond based on the situation, information, and resources available at the time of the incident.
- Available resources, including medical staff may become limited due to high demand in a large-scale incident. Further, medical staff may not be available during large scale disasters because of direct personal or family impact and limited mobility means.
- All agencies will support this ESF as necessary.

- A large-scale incident may deprive substantial numbers of people access to medicine, food and water. In addition, substantial disruption to the commercial supply and distribution network, an incident may partially or totally destroy medical and food products stored in the affected area.
- Public Health facilities will receive priority consideration for structural inspections to ensure safety of occupants and the continuation of essential functions.
- During an incident, there will be populations requiring special attention. These groups include the elderly and those with disabilities
- Coordination of emergency medical services will be provided as soon as it has the capacity to do so.
- A high percentage of the water supply may be unusable, requiring potable water supplies to be made available.
- Medical facilities may be required to be provided to the victims for a number of days after the incident.
- Many of the more seriously injured will be transported to hospitals outside the incident area.
- Some medical facilities may be so over-taxed that accurate record keeping on treated, released, hospitalised, and transferred individuals may become impossible.
- May seek individual clinical health and medical care specialists from other agencies and institutions.

6.8 General Concept of Operation

- ESF 6 coordinates with the appropriate relevant agencies and organizations including Medical and public health officials and private organisations to determine current medical and public health assistance requirements.
- During the response period, this ESF has primary responsibility for the evaluation and analysis of public health and medical assistance, and develops and updates assessments of medical and public health status.
- Emergency service organisations and medical care

providers that are still functional after a disaster or major emergency may need assistance and/or guidance concerning how Brihan Mumbai Electricity Supply & Transport to provide services on a temporarily amplified basis.

- Coordinate the furnishing of health and medical services and resources from unaffected areas to augment or replace capabilities disrupted or destroyed.
- After assessment of damage to facilities which supply food and/or pharmaceuticals, will issue recommendations on securing and disposition of these products.
- Congregate care facilities and other public areas to ensure proper sanitation practices.
- Coordinate all the public health and sanitation assistance coming from national and international sources.
- Respond to all public health and medical emergencies and incidents including assistance or support in maintaining independence, communicating, using transportation, and/or requiring supervision.
- The Lead Agency shall assume operational control of emergency public health and medical response assets, as necessary, in the event of a public health emergency, except for members of the Armed Forces, who remain under the authority and control of the Ministry of Defence.
- Coordinates all response actions consistent with policies and SOP (e.g., Concept of Operations Plan for Public Health and Medical Emergencies,).
- Responsible for maintaining administrative control over the respective response resources.
- The representatives operating from the EOC, coordinates the overall response and maintains constant communication with the respective agencies.
- All organizations participating in response operations report public health and medical requirements to this ESF representative operating in a response operation.
- The EOC in co-ordination with this ESF will coordinate

incident-related public information, and will release general medical and public health response information to the public.

- Determines the appropriateness of public health and medical information and is responsible for consulting with and organizing public health and medical subject-matter experts, as needed.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritised listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

6.9 Organisation Concept of Operations

- Lead agency will contact appropriate support organizations to respond as needed. Support agencies will have extensive knowledge of the resources and capabilities of their respective organisations and will have access to the appropriate authority for committing such resources during the activation.
- Personnel are mobilized to assess public health and medical needs. This function includes the assessment of the public health care system/facility infrastructure.
- Monitor the health of the affected population and special high-risk populations, carries out field studies and investigations, monitors injury and disease patterns and potential disease outbreaks, and provides technical assistance and consultations on disease and injury prevention and precautions.
- Deploy assets when necessary, may request assistance in

coordination with the EOC to provide medical equipment and supplies, including medical, diagnostic, and radiation-emitting devices, pharmaceuticals, and biologic products. The equipment and supplies will be used to support immediate medical response operations and for restocking health care facilities in an area affected by major disaster or emergency.

- Capabilities in the many areas involved in patient evacuation so that it occurs as effectively and efficiently as possible.
- Continuously acquires and assesses information on the incident. The staff continues to identify the nature and extent of public health and medical problems, and establishes appropriate monitoring and public surveillance.
- Establish communications necessary to coordinate EOC and medical assistance effectively.
- Issue press releases and other information from the EOC when appropriate.
- Prepares a summary after-action report regarding health and medical issues. The after-action report identifies key problems, indicates solutions, and makes recommendations for improving response operations. Support organisations are asked to assist in the preparation of the after-action report.
- Ensure the purity and wholesomeness of meat and meat products, poultry and poultry products, and egg products: (Public Health)
- Prevent distribution of contaminated meat and meat products, poultry and poultry products, and egg products.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

6.10 Responsibilities and Actions

- Internal assets to provide immediate medical response capabilities.
- Assess potable water, wastewater, solid waste disposal issues, and other environmental health issues.
- Conduct field investigations, including collection and laboratory analysis of relevant samples.
- Provide technical assistance and consultation on potable water and waste-water/solid waste disposal issues.
- Assessing the threat of vector-borne diseases.
- Conducting field investigations, including the collection and laboratory analysis of relevant samples.
- Providing vector control equipment and supplies.
- Providing technical assistance and consultation on protective actions regarding vector-borne diseases.
- Providing technical assistance and consultation on medical treatment of victims of vector-borne diseases.
- Providing victim identification and mortuary services.
- Establishing temporary morgue facilities.
- Performing victim identification by fingerprint, forensic dental, and/or forensic pathology/anthropology methods.
- Processing, preparation, and disposition of remains.
- Tracking personal effects.
- Arranging for body release.
- Making cultural and ethnic accommodations including translators for non-English speaking individuals.
- Identifying and sequestering of contaminated or infectious remains.
- Providing timely information.
- Coordinating arrangements for mortuary services in disaster situations when requirements exceed local capabilities.

6.11 Activation

- EOC will activate ESF 6, which will subsequently activate support agencies.
- ESF 6 can self-activate in coordination with EOC.
- This activation requires deployment of ESF representative to the EOC.

6.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Assess the disaster situation and forecast public health and sanitation response needs.
- Provide technical assistance to the EOC and validate requests for medical services.
- Establish communication with other ESFs.
- Assess the disaster situation and determine the adequacy of public health and sanitation response activities;
- Provide technical assistance to other agencies providing public health and sanitation.
- Validate requests from affected areas for public health and sanitation resources.
- Manage the process for requests for assistance through EOC.
- Provide reports to the EOC response structure and anticipate future public health and sanitation requirements.

6.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

7

RESOURCE MANAGEMENT

Lead Agency:
Disaster Management Cell (MCGM)

Contact: Chief Officer
Disaster Management Unit, CCRS
Municipal Corporation of Greater Mumbai
Phone: 22694725/27
www.mcgm.gov.in
Email : mnarvekar.pmdrmmp@gmail.com

Chapter - 7

Emergency Support Function 7 RESOURCE MANAGEMENT

7.1 Agency

LEAD: Disaster Management Unit (Municipal Corporation of Greater Mumbai).

SUPPORT:

- Mumbai Police
- Media
- Videsh Sanchar Nigam Limited.
- Mahanagar Telephone Nigam Limited.
- Mumbai Fire Brigade
- Mumbai International Airport Limited, Railway
- State Transport
- Traffic Police
- Mobile Operator
- National Disaster Response Force.
- Civil Defense.
- Non-Governmental Organization
- Military
- Mumbai Port Trust (MbPT)
- Kalyan-Dombivali Municipal Corporation.
- Mira-Bhayander Municipal Corporation.
- Thane Municipal Corporation.
- Brihan Mumbai Electricity Supply & Transport.
- M.A.R.G.

7.2 Purpose

- To utilize resources in an optimum and efficient manner to deal with various types of natural and man-made emergencies.
- To give the different ESFs the ability to: (1) Maintain and continuously update inventory of resources and, (2)

Allocate resources in a prompt and orderly manner.

7.3 Mission

- To maintain inventory of, and to make optimal use of available resources in Mumbai and neighbouring cities

7.4 Legal Authorities

- Municipal Corporation of Greater Mumbai.
- Civil Defense.
- Thane Municipal Corporation.
- Navi Mumbai Municipal Corporation.
- Mira-Bhayander Municipal Corporation.
- Military.
- Mumbai International Airport Pvt. Ltd.
- Mumbai Port Trust (MbPT).
- National Disaster Response Force.
- Mumbai Police.
- Kalyan-Dombivali Municipal Corporation.
- Brihan Mumbai Electricity Supply & Transport.
- Maharashtra State Road Transport Corporation.

7.5 Scope

- To provide resource management support.
- To develop and update resource inventory.
- To keep a stock of material and equipment.
- To provide necessary manpower, equipment, material and logistic support to other ESF's.
- To provide support for requirements not specifically identified in other ESFs. It addresses the effort and activity necessary to evaluate, locate, procure, and provide essential material resources, including excess and surplus.
- To continue support until the disposition of excess and surplus.
- Implement financial management, procurement and tracking system.

7.6 Policies

- All resources will be provided without regard to

economic status or racial, religious, political, ethnic, or other affiliation.

- All resources will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 24 hours following a disaster occurrence.
- The resource owned by the agencies other than this ESF will also be mobilized.

7.7 Assumptions

- Requirements at the Incidence may need to be met from resources outside the disaster area, as most local resources will be claimed by the lead agency in support of response operations.
- During a disaster, persons who own or control private resources will be asked to cooperate in response and recovery operations.
- Many may wish to donate goods to assist disaster victims, these goods and services may come in from all areas of the city.
- If the emergency response period lasts more than 24 hours, outside assistance is likely to be required.
- Following an emergency of any magnitude, private resources will be available that have not been included on the resource lists. These resources may come from a variety of sources.
- Normally available resources will be difficult to obtain and utilize because of massive disruption of communication, transportation, collapse of structure and utilities.
- If a major earthquake occurs, vehicle, air and rail access will be hampered by such occurrences as bridge failures and landslides, making conventional travel to the incident site extremely difficult or impossible.
- Many of the resources commonly available for use will be scarce or unavailable.

- An incident may cause extensive damage to the available resources.
- Multiple agencies providing resources will need to be properly coordinated.

7.8 General Concept of Operation

- The first resources to be identified will be those that are under the control of or are readily available with this ESF.
- Locate the required resources available with this ESF.
- Locate the required resources in the community.
- Assess the impact of the disaster on the community.
- Develop letters of understanding with the private sector organizations who have the required resources to include points of contact.
- Identify those required resources that are not available locally and find their nearest location.
- Develop procedures that can circumvent normal procurement procedures during an emergency period.
- Participate in exercises and drills to train personnel in the proper allocation of resources to include procedural arrangements.
- Analyse the potential of the emergency situation to know what types of resources would be needed.
- Check on the availability of needed resources making lists of those available and unavailable.
- Contact private sector organisations and neighbouring jurisdictions to indicate the possible need for assistance.
- Coordinate activities with other response agencies (i.e., Red Cross, AADM, etc.) to ensure a coordinated and efficient allocation.
- Report on status and actions taken, to the EOC staff.
- Protect resources from possible damage resulting from the disaster.
- Secure a workable location for the storage and distributing of disaster goods and services.
- After activating Resource Management personnel, work with the EOC staff to establish priorities and allocate

resources.

- Assist in developing lists of outside resources that are required.
- Coordinate with ESF 8 in informing the public of the location of available assistance.
- Coordinate resource requirements and requests of other ESF.
- Work closely with other ESF's to minimize duplication of efforts.
- Review damage assessments and make an estimate of resources needed for recovery.
- All local resources must be committed before assistance is requested from neighbouring jurisdictions or upper levels of government.
- In accordance with assigned responsibilities and upon implementation of the Mumbai Emergency Operation Plan (MEOP), this ESF will provide operational assistance to the other ESF.
- Support agencies will furnish resources based on requirements, including procurement personnel necessary to establish operations effectively to the other ESF.
- Equipment and supplies will be provided from current available stocks.
- Upon requisition, administration of the resources provided by support agencies will be managed at their end.
- All procurement will be supported by a written justification and will be made in accordance with current respective laws and regulations for this purpose.
- All procurement actions made at the request of agencies as per the requisition of this ESF will be in accordance with respective agency's statutory and administrative requirements and will be accomplished using the appropriate fund citation/reimbursement procedures.
- The provision of the operational support necessary to establish the response capacity of support agencies will be a major element in the execution of this ESF.

- It is the responsibility of Lead Agency to mobilize these resources as necessary to relieve suffering and to protect lives and property.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritised listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed

7.9 Organization Concept of Operations

- All organizations will operate through normal supply channels, if possible. Operations will be tailored to the expanded demands, using staff rotation on 12-hour shifts.
- Normal upkeep and maintenance of equipment will be upgraded during the disaster operation period.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

7.10 Responsibilities and Actions

- To maintain updated resource inventory.
- Locate, procure, and issue resources to other support agencies for use in emergency operations necessary to support the emergency response or to promote public safety.
- Locate and coordinate the use of available space for disaster management activities.
- Coordinate and determine the availability of and provide consumable non edible supplies stocked in distribution facilities and customer supply centers when available.
- Procure required stocks from vendors or suppliers when

items are not readily available.

- Coordinate motor equipment and transportation services in coordination with the ESF 5, and in conformance with its responsibilities for the implementation of emergency-related functions, including the prioritization and/or allocation of all or part of the civil transportation resource and related ESF 5 responsibilities.
- Coordinate the procurement of communications equipment in coordination with ESF 1.

7.11 Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incidence
- The activation is initiated on receipt of the emergency call.
- Support may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the support of Resources.
- Upon activation, the Lead Agency representative will implement existing SOPs.
- Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process as per needs.
- The ESF operation begins with mobilisation/activation of EOC and continue in the relief phase.

7.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available resources.
- Maintain complete logs of actions taken, reports of

resources needs and capabilities.

7.13 Deactivation

- Deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

8

INFORMATION MANAGEMENT

Lead Agency:
Public Relations Officer (MCGM)

Contact: Public Relations Officer
M.C.G.M.
Phone:
Fax:
www.
Email Id:

Chapter - 8

Emergency Support Function 8 INFORMATION MANAGEMENT

8.1 Agency

LEAD: Public Relations Officer (Municipal Corporation of Greater Mumbai).

SUPPORT:

- Director General of Information & Public Relation (DGIPR) (Government of Maharashtra).
- Government Media (All India Radio, Doordarshan)
- Press Information Bureau.
- Brihan Mumbai Electricity Supply & Transport.
- Railways.
- Mumbai Police.
- Mohalla Committee.

8.2 Purpose

- To collect, analyse, process, and disseminate information about a potential or actual disaster or emergency to facilitate the overall activities in providing assistance to one or more affected areas.
- To disseminate information on all aspects of emergency management that includes preparedness, response, recovery and mitigation.

8.3 Mission

- To be the focal point of information for media regarding the disaster.
- To be the focal point of information for citizens regarding the disaster.

8.4 Legal Authorities

- Director General of Information & Public Relation D.G.I.P.R. (Government of Maharashtra).
- Emergency Operation Plan (Municipal Corporation of Greater Mumbai).
- Press Information Bureau.
- Police.
- Railways.
- Brihan Mumbai Electricity Supply & Transport.
- All India Radio
- Doordarshan.

8.5 Scope

- Develop plans to coordinate with news media for emergency operations, before, during and after emergency situations.
- Develop plans to conduct a multi-agency/jurisdiction coordinated public information programme during emergencies and disasters; this includes the establishment of a Joint Information Center (JIC).
- Develop plans and programs to educate news media about disaster management.
- Develop procedures to organise and operate a media briefing area and/or a JIC during emergency.
- Develop and maintain pre-scripted SMS, news releases, and public service announcements for all hazards.
- Provide evacuation information to the affected public.
- Develop and maintain a roster with contact information of media personnel.
- Supplement emergency management public information operations, as necessary.
- Provide timely and accurate SMS and news releases in common language and terminology to inform the media and citizen.
- Provide emergency public information relating to population of special needs.
- Coordinate with news media regarding emergency operations.

- Organise and operate a press briefing area and a JIC, as appropriate.
- Continue public information activities for the purpose of updating the media and public on response, relief and recovery efforts.
- Develop plans and procedures for rumour control.
- Develop plans to coordinate with news media for emergency operations, before, during and after emergency situations.
- Develop plans and programs to educate news media that this ESF will be the primary information center during emergency situations, unless otherwise directed by the Emergency Services Director.
- Develop and maintain pre-scripted messages, news releases, and public service announcements for all hazards to include hurricanes, earthquakes, nuclear incidents and dam failures.
- Appeal to public to cooperate to emergency response.

8.6 Policies

- All information will be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- All information will be provided in accordance with existing Local statutes, rules, and regulations.
- Support agency personnel assigned to this ESF will work in accordance with Lead Agency and will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

8.7 Assumptions

- The incident has occurred and public perception is such that people believe they have been placed in danger by a natural or man-made incident.
- There is an immediate and continuous demand by officials involved in response and recovery efforts for information about the developing or Non-Governmental Organising disaster or emergency situation.

- Emergency public information actions will be determined by the severity of the situations as declared by involved entities or as perceived by the people.
- There may be a need to rapidly deploy field observers or assessment personnel to the disaster area to collect additional critical information about resource requirements for victims or to conduct an immediate situation assessment to determine initial response requirements.
- This ESF staff needs to be self-sufficient in terms of supplies, equipment, and communications connectivity during this initial period.

8.8 General Concept of Operation

- Procedures, protocols and plans for disaster response activities are developed to govern staff operations at the Emergency Operations Center and in the field. These are in the form of Emergency Operation Plan (EOP), corresponding Appendices and Standard Operating Procedures, which describe responsibilities. Periodic training and exercises are also conducted to enhance effectiveness.
- Should the event require additional jurisdictional PRO participation, a Joint Information Center (JIC) preferably within Municipal Head Office, will be established where all public information will be coordinated through the JIC to and from all the jurisdictions and agencies to enforce one consistent, clear message to the community is provided.
- The Citizen's Information Center may be activated to assist in providing a consistent message to the community and will be managed and under the direction of the lead agency.
- In the initial period of an incident, the main avenue for the collection of disaster information should be from local sources primarily first responders and other government elements, which should report information to the Emergency Operations Center (EOC).

- Collection and collating of Information from support agencies.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

8.9 Organization Concept of Operations

- To interact with the media and/or agencies with incident-related information.
- To coordinate for receiving and disseminating public information.
- Maintains the Situation Room for information displays, and collects and analyzes information to be used the status briefings, and by other responders.
- Develops appropriate media for displaying information, including the overall emergency team organizational chart and daily meeting information.
- Facilitates daily or special information and /or briefing meetings.
- Documentation of information.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

8.10 Responsibilities and Actions

- Disseminate information about evacuation information to the affected people through media.
- Update public information media (print, radio and TV) listings as necessary.

- Provide mass notifications to the populace and provide periodic media updates.
- Organize and operate a press briefing area and a joint information center, as appropriate.
- Supplement emergency management public information operations as necessary and as resources are available.
- Continue public information activities to include updating the people on recovery efforts.

8.11 Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incidence
- The activation is initiated on receipt of the emergency call.
- Support may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the support of Resources.
- Upon activation the Local agency representative will implement SOPs Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process as per needs.

8.12 Response on Activation

- The lead agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available resources.
- Maintain complete logs of actions taken, reports of resources needs and capabilities.

8.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

9

MASS CARE, HOUSING AND HUMAN SERVICES

Lead Agency:
Education Officer (MCGM)

Contact: Education Officer
M.C.G.M.
Phone:
Fax:
www.

Chapter - 9

Emergency Support Function 9 INFORMATION MANAGEMENT

9.1 Agency

LEAD: Education Officer (Municipal Corporation of Greater Mumbai).

SUPPORT:

- Collector, Controller of Rationing.
- Civil Engineer (C.E.)
- Solid Waste Management.
- Hydraulic Engineer (H.E.)
- Brihan Mumbai Electricity Supply & Transport.
- Civil Defense.
- National Cadet Corporation.
- NSS
- Non-Governmental Organization.
- Maharashtra Housing and Area Development Authority.
- Water Tanker Association.
- Directorate of Milk & Milk Products.
- Public Works Department.
- AHAR
- Food Corporation of India.
- Mumbai University.
- Superintendent of Gardens.
- Mumbai Police.
- Environmental Health Officer.

9.2 Purpose

- To support the coordinated effort to provide emergency shelters, sleeping areas, feeding and other relief supplies following an incident.

- To support mass care system that is responsible for coordinating emergency relief supply, victim reporting and reunification.

9.3 Mission

- To provide suitable temporary shelters with adequate facilities like security, medical, food, water, sanitation & amenities etc.

9.4 Legal Authorities

- Collector.
- Municipal Corporation of Greater Mumbai.
- Civil Defense.
- Maharashtra Housing And Area Development Authority.
- National Cadet Corporation.
- Controller of Rationing.
- Brihan Mumbai Electricity Supply & Transport.
- NSS
- Directorate of Milk & Milk Products.
- Public Work Department.
- Food Corporation of India.
- Mumbai University.
- Mumbai Police.

9.5 Scope

- The Lead Agency will work with support agencies to facilitate delivery of mass care services.
- Initial response activities will focus on meeting urgent needs of disaster victims on a mass care basis. Initial Recovery efforts may commence as response activities are taking place. As recovery operations are introduced close coordination will be required between support agencies responsible for recovery operations.
- As response activities are introduced, close coordination will be required between those responsible for response activities, and supporting agencies.
- Emergency shelter for disaster victims includes the use of pre-identified shelter sites in existing structures;

creation of temporary facilities or the temporary construction of shelters; and use of similar facilities outside the disaster-affected area, should evacuation be necessary.

- Feeding will be provided to disaster victims and emergency workers through a combination of fixed sites, mobile feeding units, and bulk distribution of food. Such operations will be based on sound nutritional standards and will include meeting requirements of disaster victims with special dietary needs.
- Disaster Welfare Information DWI regarding individuals residing within the affected area will be collected and provided to immediate family members outside the affected area through a DWI system. DWI will also be provided to aid in reunification of family members separated at the time of the disaster.
- Emergency first aid will be provided to disaster victims and workers at mass care facilities and at designated sites within the disaster area. This service will be supplemental to emergency health and medical services established to meet the needs of disaster victims.
- Sites will be established within the affected area for bulk distribution of emergency relief items to meet urgent needs of disaster victims.

9.6 Policies

- All mass care activities and services will be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- All mass care activities and services will be provided in accordance with existing Local statutes, rules, and regulations.

9.7 Assumptions

- No guarantee of a perfect response system is expressed or implied by this ESF. The ESF will make every reasonable effort to respond based on the situation, information, and resources available at the time of the

incident.

- Available resources may become limited due to high demand in a large-scale incident.
- All agencies will support this ESF as necessary.
- A large-scale incident may deprive substantial numbers of people access to food and water. In addition, substantial disruption to the commercial supply and distribution network, an incident may partially or totally destroy food products stored in the affected area.
- Mass care shelter facilities will receive priority consideration for structural inspections to ensure safety of occupants and the continuation of essential functions.
- It is assumed there is major damage to large numbers of private residences and businesses and that people may be displaced for 72 hours or more, alternate shelters may need to be set up for these people.
- During an incident, there will be populations requiring special attention. These groups include the elderly and those with disabilities.
- Feeding, shelter, and emergency first aid services will be provided as soon as the ESF 9 has the capacity to do so.
- A high percentage of the water supply may be unusable, requiring juices or potable water supplies to be made available.
- Sheltering and feeding activities may be required to accommodate victims for a number of days after the incident.
- Some victims may go to shelters, others may find shelter with friends and relatives, and many victims will remain within or near their damaged homes.
- The magnitude of the incident may require the operation of large long-term shelters as some percentage of the sheltered population will require shelter for an extended period of time.
- Many of the more seriously injured will be transported to hospitals outside the incident area
- Some medical facilities may be so over taxed that accurate record keeping on treated, released,

hospitalised, and transferred individuals may be impossible.

- Will be the responsible for Individual assistance and coordination. The requirement of the Human Resources will be based on the needs of those affected, the scale and impact of the incident, and available resources.
- Will be self-sufficient for a minimum of 48 hours following a disaster occurrence.

9.8 General Concept of Operation

- Will work to obtain needed support for shelters in open areas.
- For nutrition and food supply coordinate city's response activities thorough the EOC.
- Agencies will be notified and expected to provide 24-hour representation, as necessary. Agencies representative will have sufficient knowledge of the capabilities and resources of their agencies, with appropriate authorities to commit resources to the response and recovery effort.
- Agencies will notify their essential employees to report to the appropriate locations as designated.
- Primary focus is on sheltering activities, food supply and the coordination of agencies activities involved in mass care.
- Coordinate the activities of identified shelters. This includes shelters formed before, during, and after the incident.
- Shelters will be opened and closed in accordance with public need as requisite by Disaster Management Unit.
- Continuously monitor occupancy status and Non-Governmental Organisationing victims' needs, and will provide information regarding daily listing of "open" and "closed" shelters to the EOC.
- All shelters should be managed in accordance with the guidelines/SOPs prepared.
- Shelter listings will include staffing and resource information. Coordinate the provision of added and

relief staff, and the replenishment of shelter supplies.

- Assist in the coordination of food supply sites established for disaster victims and critical workforce personnel.
- Generate, procure, and regularly update a list of all public and private agencies that have a mission to provide food supply at times of disaster.
- Coordinate sanitation provisions and inspections, and garbage removal from shelter sites.
- Coordinate the supply of food and water to shelter sites and also storage of food as per requirements.
- Coordinate for the provision of medical services and psychological support services in shelters; and will ensure that trained and qualified personnel are present in shelters in sufficient numbers to care for people needing assistance.
- Coordinate to ensure each shelter has a working system of communications. Coordinate the procurement and support of shelter generators and fuel.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritised listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

9.9 Organization Concept of Operations

- Representatives of all agencies will be available on 24X7 basis during emergency.
- The ward level response structure may be composed of representatives at the ward control room and

representatives on the Emergency Response Team.

- The agencies will also have their representative at ward level.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

9.10 Responsibilities and Actions

- Locate adequate relief camps based on damage assessment.
- Quick assessment of functional and stable structures for use as shelters.
- Identify clear open spaces for setting up of relief camps
- Coordinate shifting of population from affected buildings to safe sites.
- Set up relief camps in temporary shelters by innovative methods, closer to open traffic links.
- Provide shelters in accordance with risk.
- Enter into a pre-contract system with the Civil Suppliers for immediate arrangement of food and relief materials during the crisis.
- Ensure coordination of activities related to 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.
- Control quality and quantity of food for relief.
- Ensure timely distribution of food to affected people.
- Make emergency food supplies available to the affected population.
- Provide adequate and appropriate shelter to the affected population.
- Locate relief camps close to open traffic and transport links.
- Develop alternate arrangements of shelter for population living in structures that might be affected even after the disaster.

9.11 Activation

- EOC will activate lead agency, which will subsequently activate support agencies.
- This activation may include deploying representative to the EOC.

9.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Assess the disaster situation and forecast mass care response needs;
- Provide technical assistance to the EOC and Validate requests for mass care resources.
- Establish communication with other ESFs.
- Assess the disaster situation and determine the adequacy of mass care response activities.
- Provide technical assistance to the other agencies providing mass care.
- Validate requests from the affected areas for mass care resources.
- Manage the process for requests for assistance through EOC.
- Provide reports to the EOC response structure and anticipate future mass care requirements.

9.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

10

RELIEF SUPPLIES

**Lead Agency:
Collector (City)**

Contact Person: Collector (City)
Collectorate Mumbai City
Phone:
Fax:
www.
Email Id:

Chapter - 10

Emergency Support Function 10 RELIEF SUPPLIES

10.1 Agency

LEAD: Collector (City)

SUPPORT:

- Controller of Rationing.
- Municipal Corporation of Greater Mumbai.
- Non-Governmental Organization.
- Civil Defense.
- Police
- Army
- Red Cross
- Regional Transport Officer.
- Director Medical Education.
- Food Corporation of India.
- Directorate of Milk & Milk Products.
- Private Hospitals.
- Department of Animal Husbandry.
- Fisheries
- Pay and Account (Government of Maharashtra).

10.2 Purpose

- To provide relief supply to affected population and other ESFs. Relief supply includes: food, water, medicine, clothing, sanitation equipment and financial assistance.

10.3 Mission

- To coordinate and organise relief supply from agencies in preparing for, responding to and recovering from incidents which impact the citizens of Mumbai.

10.4 Legal Authorities

- Controller of Rationing.
- Municipal Corporation of Greater Mumbai.
- Civil Defence.
- Police, Army.
- Regional Transport Officer.
- Director of Health of Services.
- Food Corporation of India.
- Department of Animal Husbandry.
- Fisheries.
- Pay and Account (Government of Maharashtra).
- Directorate of Milk & Milk Products.

10.5 Scope

- Is responsible for providing direct and active support to emergency response and recovery efforts during all the phases following a disaster.
- Locating, procuring, and issuing resources such as food, water, medicines, clothing, financial assistance, contracting services, fuel, and personnel.
- To receive donations in kind the relief supply from local and international donors, stock and disburse.
- Is responsible for coordinating the activity of relief supply from all agencies and ESFs.

10.6 Policies

- All relief supply activities and services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- Relief supplies will be provided from current stocks as well by procurement, if necessary, from public and private sources.
- Designated support agencies will furnish resources as required supporting these ESF requirements. Support by these agencies will be terminated at the earliest practical time.

- Coordinate the procurement of relief supply in accordance with current laws and regulations, guidelines.

10.7 Assumptions

- An incident may cause extensive damage to the Mumbai and/or surrounding jurisdictions, requiring activation of relief supply in support of coordinated response activities.
- Multiple agencies providing relief supply will need to be properly coordinated.
- Movement of resources into and out of the impacted area will be predicated on and require the identification of all surviving and available methods and routes of transportation.
- Damaged roads, vehicles, facilities, equipment and damaged or disrupted communications could significantly hamper emergency relief supply support.
- Emergency Relief Supply support requirements will likely exceed local capabilities and outside assistance will be required and must be planned for to support local emergency operations and/or a large-scale evacuation.
- Most evacuees will seek shelter with relatives or friends rather than accept public shelter.
- Some residents that are ill or disabled may require special relief supplies.
- Institutions like local hospitals, jails, assisted living quarters, schools, day care centers, etc., or the institution will make prior arrangements of relief supply to the residents', when required.
- Certain areas of Mumbai, or special populations within Mumbai, may need additional time to accomplish Relief Supply.
- It may take several days to complete a rehabilitation in and out of Mumbai.
- It will be difficult to provide relief supplies in affected areas without the permission of competent authority of restricted and prohibited areas.

10.8 General Concept of Operation

- Coordinate to receive, stock and distribute relief supplies within the laid down guidelines.
- To coordinate relief supplies for mass care and medical facilities.
- To appeal to the public to cooperate with emergency relief supply measures.
- Relief supply may be obtained from agencies not listed in the support agencies.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Determine necessary response level required.
- Initiate requisition of the required personnel and support organizations to achieve the required level of response.
- Based upon the situation analysis, prepare a list of objective-based priority actions to support life-saving and short-term recovery operations. The action list should be revised as the situation changes.
- Prepare briefings on status of response operations.
- Compile and maintain the information of relief supply and submit these to **ESF 7** upon request.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

10.9 Organization Concept of Operations

- Operate in coordination with the Emergency Operation Centers Municipal Corporation of Greater Mumbai and will continue to operate throughout the emergency

situation.

- Maintain liaisons with other ESFs.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

10.10 Responsibilities and Actions

- Is responsible for planning, coordinating, and managing relief supply.
- To coordinate procurement and allocation of relief supply.
- To oversee distribution of relief supply of food and other essential supplies.
- The Lead Agencies for this ESF is the Collectorates of Mumbai which are vested with the overall responsibility for allocating and coordinating resources and support activities. This will be responsible for the review and revision of this plan on an annual basis or as needed.
- Responsible for coordinating the response in any major emergency or disaster. This includes supporting EOC to ensure an effective response to the situation.
- Coordinate with the support agencies. Such coordination includes liaison with agencies.

10.11 Activation

- Different levels of activation will be operationalised depending on the nature and severity of the incidence.
- The activation is initiated on receipt of an emergency call.
- Upon determination by the Disaster Management Unit (DMU) staff of an impending or actual incident requiring relief Supply capabilities or posing a significant threat to Mumbai infrastructure, EOC will request to implement Relief Supply activities.
- Relief Supply may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the Relief Supply.
- Upon activation, the Relief Supply representative will implement existing SOPs.

- Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process.

10.12 Response on Activation

- ESF representative will establish operations at the EOC as soon as possible after the notification and activation of Relief Supply.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine Relief Supply needs and available resources.
- Maintain complete logs of actions taken, reports, and transportation resources needs and capabilities.

10.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

11

ENERGY

(POWER, GAS, FUEL)

Lead Agency:

**BRIHAN MUMBAI ELECTRICITY
SUPPLY & TRANSPORT Undertaking**

Contact: Deputy Chief Engineer (Distribution North)
BRIHAN MUMBAI ELECTRICITY SUPPLY & TRANSPORT

Phone:

Fax:

www.

Email Id:

Chapter - 11

Emergency Support Function 11

ENERGY (POWER, GAS, FUEL)

11.1 Agency

LEAD: Brihan Mumbai Electricity Supply & Transport Undertaking

SUPPORT:

- Reliance Infrastructure.
- TATA Power Company.
- Director Industrial Safety and Health (DISH).
- Maharashtra State Electricity Distribution Corporation Limited.
- Mahanagar Gas Limited.
- Indian Oil Corporation Limited.
- Bharat Petroleum Corporation Limited.
- Hindustan Petroleum Corporation Limited.
- Maharashtra State Power Generation Corporation Ltd.
- Maharashtra State Electricity Transmission Corporation Limited.

11.2 Purpose

- To assess the state of operation and supply of energy in the case of an emergency
- To coordinate the transmission and distribution of energy during an emergency
- To facilitate restoration of damaged energy systems and components
- To maintain continuous and reliable energy supply for Mumbai through preventive measures and restoration and recovery actions.

11.3 Mission

- To build the overarching edifice within which specific actions need to be taken by various institutions and individuals at all levels, working in cohesion and multi-sectorally, with all statutory regulations.

11.4 Legal Authorities

- Brihan Mumbai Electricity Supply & Transport.
- Directorate of Industrial Safety and Health.
- Bharat Petroleum Corporation Limited.
- Hindustan Petroleum Corporation Limited.

11.5 Scope

- To gather, assesses, and shares information on energy system damage and estimations on the impact of energy system outages in affected areas.
- To work closely with other ESFs and aids in meeting requests for assistance to affected population.
- Has a variety of assets and resources that will be used in response to any event involving disruption in energy delivery, caused by multiple hazards. Energy Delivery includes producing, refining, transporting, generating, transmitting, conserving, building, and maintaining energy systems and system components.

11.6 Policies

- Energy activities will be provided regardless of economic status or racial, religious, political, ethnic or other affiliations.
- Energy activities will be provided in accordance with existing local statutes, rules, and regulations.
- Energy supply will be provided on priority as per emergency requirements.
- Support agency personnel assigned will work in coordination with the lead agency and will be self-sufficient for a minimum of 48 hours after a disaster occurs.
- Priority will be to take suitable measures to save lives, protect property, and assist other ESFs by aiding the restoration of damaged energy systems.

- Within 24 hours of implementation of the Emergency Operation Plan or upon instructions from the EOC, the Lead Agency will begin submitting situation reports to EOC Headquarters.

11.7 Assumptions

- The ESF will make every reasonable effort to respond; based on the situation, information, and resources available at the time of the incident.
- Available resources may run short due to high demand in a large-scale incident.
- All agencies will support this ESF as necessary.
- A large-scale incident may deprive substantial number of people, organisations and institutions access to energy. In addition, substantial disruption to the commercial supply and distribution network, an incident may partially or totally destroy energy production, transmission & distribution network.
- During an incident, there will be population & establishment requiring urgent attention such as hospitals, mass shelters, water supply, communication, airport, railway facility & law & order.
- The energy production facility, transmission and some of the substations may get affected.
- Damaged roads, vehicles, facilities, equipment and damaged or disrupted communications could significantly hamper emergency energy supply.
- Damage to an energy system in one geographic region may affect energy supplies in other regions that rely on the same delivery systems. Consequently, energy supply and transportation problems can be intra-state, inter-state, and international.

11.8 General Concept of Operation

- Upon activation, ESF 11 will establish the Incident Response Team (IRT).
- ESF 11 will assign personnel to EOC.

- Assess fuel and electric power damage, energy supply and demand, and identify requirements to repair energy systems.
- Coordinate closely with supporting agencies in establishing priorities to repair damaged energy systems, and coordinate the provision of temporary, alternate, or interim sources of emergency gas, fuel and power.
- Obtain current information regarding damage to energy supply and distribution systems and assess the requirements for restoration.
- Provide timely and credible energy supply forecasts.
- Provide technical experts on energy supply production and delivery to coordinate energy information exchange.
- Coordinate with other ESFs to provide timely and accurate energy impact information, recommend options to mitigate impacts, and coordinate repair and restoration of energy systems.
- Obtain information regarding energy impacts and provide input to situation and other reports to the EOC.
- Coordinate with agencies and energy industries in the region regarding priorities to repair damaged energy systems.
- Through the EOC, provide direct coordination with all other response elements.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritised listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

11.9 Organization Concept of Operations

- Representatives of all support agencies of ESF 11 will be available for all 24-hours during an emergency.
- Liaisons from respective support agencies will be available to the ESF 11 section at the EOC as necessary and available on a 24-hour basis for the duration of the emergency response period.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

11.10 Responsibilities and Actions

- Serve as the focal point for issues and policy decisions relating to energy in all response and restoration efforts;
- Monitor energy system damage and repair work.
- Collect, assess, and provide information on energy supply, demand, and prices; contribute to situation and after-action reports.
- Identify supporting resources needed to restore energy systems.
- Deploy emergency response teams as needed to affected area(s) to assist in response and restoration efforts.

11.11 Activation

- EOC will activate lead agency, which will subsequently activate support agencies.
- May also self-activate in coordination with EOC.
- This activation will require deployment of ESF representative to the EOC.

11.12 Response on Activation

- The lead agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available communication means.

- Maintain complete logs of actions taken, reports of communication resource needs and capabilities.

11.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

12

UTILITY SERVICES

Lead Agency:
Deputy Municipal Commissioner
(Special Engineering),
(MCGM)

Contact: Deputy Municipal Commissioner (S.E.)
MCGM
Phone:
Fax:
www.
Email Id:

Chapter - 12

Emergency Support Function 12 UTILITY SERVICES

12.1 Agency

LEAD: Deputy Municipal Commissioner (Special Engineering),
Municipal Corporation of Greater Mumbai.

SUPPORT:

- Brihan Mumbai Electricity Supply & Transport.
- Mumbai Police
- Videsh Sanchar Nigam Limited.
- Mahanagar Telephone Nigam Limited.
- Mumbai Fire Brigade
- Mumbai International Airport Limited.
- Mobile Operators.
- Mahanagar Gas Limited.
- Reliance Energy.
- Bharat Petroleum Corporation Limited.
- Hindustan Petroleum Corporation Limited.
- Indian Oil Corporation Limited.
- Municipal Corporation of Greater Mumbai.

12.2 Purpose

- In order to achieve safety of life & property and restore normalcy following a disaster, undertake immediate damage assessment, provide technical advice, repair and restore all damaged water and waste water system and its treatment facilities, communication, gas supply and electricity. To assist needs relating to life saving or life protecting support prior to, during and immediately after a disaster.

12.3 Mission

- To take all necessary actions so that during disaster there will be no or minimum damage to the utility services.
- To restore all damaged utility services due to any disaster

12.4 Legal Authorities

- Municipal Corporation of Greater Mumbai.
- Mumbai Police, Brihan Mumbai Electricity Supply & Transport.
- Mahanagar Telephone Nigam Limited.
- Videsh Sanchar Nigam Limited.
- Bharat Petroleum Corporation Limited.
- Hindustan Petroleum Corporation Limited.
- Indian Oil Corporation Limited.

12.5 Scope

- Assessment and repairs of current utility capabilities, capacities, and reserves within Mumbai.
- Collect, evaluate, and share information on utility service damages and repairs, and estimates on the impact of service outages within the affected areas.
- Provide information concerning the utility services restoration process such as projected schedules, percent of completion of restoration, geographic information on the restoration and other information as appropriate.
- Restoration of normal operations of all utility services.

12.6 Policies

- All utility services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- All utility services will be provided in accordance with existing local statutes, rules, and regulations.

- Continuity of Operations Plans (COOP) for emergencies will be established by each agency of a public utility services.

12.7 Assumptions

- Widespread and possibly prolonged utility service failures could result in impacts that could affect transportation, media, telecommunications, and other lifeline infrastructures which would affect the public health and safety of citizens in Mumbai.
- During and after emergencies, public utilities will operate within their authorised service areas and according to their respective charters. Should these utilities be unable to supply with their service, the EOC will request additional support as per requirement.
- An incident may cause extensive damage to the utility services provided, requiring activation of utility services assets in support of coordinated response activities.
- An incident may cause extensive damage and cause of fire which would require huge quantities of water to extinguish.
- Damaged roads, vehicles, facilities, equipment and damaged or disrupted communications could significantly hamper emergency utility services support.
- Emergency utility services support requirements will likely exceed local capabilities and outside assistance will be required and must be planned for to support local emergency operations.
- The occurrence of a major disaster could destroy or disrupt all or portions of the Mumbai's utility services.
- Responding to utility shortages or disruptions and their effects is necessary for the preservation of public life, safety, health, and general welfare of citizens.

12.8 General Concept of Operation

- Types of public utilities providing services in Mumbai are electric, gas, water, sewer, petroleum products, and communications.

- The EOC will collect information on damaged utility and other and for identifying requirements to repair these services.
- While restoration of normal operations at utility services is the primary responsibility of the owners of those facilities, ESF 7 provides the appropriate supplemental assistance and resources to enable restoration in a timely manner when requested.
- Direction and control of the operational capabilities for the utilities will reside with the respective utility agencies.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritised listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

12.9 Organisation Concept of Operations

- Provide representative to the EOC as required.
- EOC and Utility services will identify local utility service providers within Mumbai and continues to update these sources.
- The utility services will continue to provide services through their established service area and operate within their Standard Operating Procedures (SOP).
- Utility service information should be furnished to EOC, Ward Control officials and also inform the local public on the safe use of services.
- Utility service providers should compile preliminary damage assessment reports and transmit them to the

EOC as needed or upon request. The EOC will collect, evaluate and report conditions to public safety and other impacted agencies and organizations.

- All utility service providers will contact EOC and update current damage assessment information.
- Utilities will coordinate the mobilization of personnel and equipment required for emergency repair of facilities and assist with conducting damage assessment operations.
- Identifies utility resources which are in short supply and are necessary for the life safety and health of the population. EOC will coordinate information with local Point of Contacts from affected utilities and their PIOs to develop emergency public information.
- Utilities will provide a single point of contact to EOC for emergency operations and conducting operations in accordance with internal procedures for emergency operations and disaster response.
- The EOC will coordinate with agencies for supplemental energy resources, including electricity, water, natural gas, petroleum products, etc.
- Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process as per needs.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

12.10 Responsibilities and Actions

- Maintain liaison with local utilities and provide 24-hour emergency contact information to include critical personnel, emergency chain of command, and notification procedures.
- Provide accurate and timely emergency public information coordinated through the EOC.
- Document all emergency-related expenditures and situation reports.
- Representative provided in the EOC will coordinate the evaluation, allocation and restoration of Utility Service.

- Identify the needs and appropriate responses and facilitate interactions between different utilities during an emergency.

12.11 Activation

- Different level of activation will be operationalized depending on the nature and severity of the incidence
- The activation is initiated on receipt of the emergency call.
- Support may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the support of Utility Services.
- Upon activation, the ESF representative will implement existing SOPs support agency notifications.

12.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Update support agency staff and monitor activities.
- Determine needs and available resources.
- Maintain complete logs of actions taken, reports of resources needs and capabilities.

12.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

13

PUBLIC WORKS AND INFRASTRUCTURE

Lead Agency:
**Director (ENGINEERING SERVICES &
PROJECTS) (M.C.G.M.)**

Contact: Director, Engineering Services and Projects
M.C.G.M.
Phone:
Fax:
www.mcgm.gov.in
Email Id:

Chapter - 13

Emergency Support Function 13

PUBLIC WORKS AND INFRASTRUCTURE

13.1 Agency

LEAD: Director (Engineering Services & Projects), Municipal Corporation of Greater Mumbai.

SUPPORT:

- Public Work Department (PWD).
- Maharashtra Housing and Area Development Authority.
- Mumbai Metropolitan Region Development Authority.
- Maharashtra State Road Development Corporation.
- Housing and Urban Development Corporation Ltd.
- Central Public Works Department.
- Mumbai Port Trust (MbPT)
- Railways
- Army
- Mahanagar Gas Limited.
- Mumbai Police
- Maharashtra Industrial Development Corporation.
- Brihan Mumbai Electricity Supply & Transport.
- Reliance Infrastructure.
- Tata Power Company.
- Maharashtra State Electricity Distribution Corporation Limited.
- Maharashtra State Electricity Transmission Corporation Limited.
- Maharashtra State Power Generation Corporation Ltd.
- Mumbai International Airport Private Limited.

13.2 Purpose

- In order to achieve safety of life & property and restore normalcy following a disaster, undertake immediate

damage assessment, provide technical advice, repair and restore all damaged public works and infrastructures.

- To assist needs relating to life saving or life protecting support prior to, during and immediately after a disaster.

13.3 Mission

- To take all necessary actions so that during disaster there will be no or minimum damage to the public works and infrastructure.
- To restore all damaged Public Works, Engineering services and infrastructure due to any disaster.

13.4 Legal Authorities

- Public Work Department.
- Maharashtra Housing and Area Development Authority.
- Maharashtra State Electricity Transmission Corporation Limited.
- Housing and Urban Development Corporation.
- Central Public Work Department.
- Mumbai Port Trust (MbPT).
- Railways, Army.
- Mahanagar Gas Limited.
- Mumbai Police.
- Maharashtra Industrial Development Corporation.
- Reliance Infrastructure.
- Maharashtra State Electricity Transmission Corporation Limited.
- Mumbai International Airport Private Limited.

13.5 Scope

- Undertake pre disaster activities such as prepositioning assessment teams, contractors and other advanced elements.
- Undertake needs/damage assessments immediately following a disaster.
- Emergency clearance of debris to enable reconnaissance of the damaged areas and passage of emergency personnel and equipment for life-saving, property protection, and health and safety.
- Removal and disposal of debris from public and private

properties.

- Provision of expedient emergency access routes, which includes repairs to damaged streets, bridges, ports, waterways, airfields, and other facilities necessary for emergency access to disaster site.
- Emergency restoration of critical public facilities, including the temporary restoration of water supplies and wastewater treatment systems.
- Emergency demolition or stabilization of damaged structures and facilities as immediate hazards to public health and safety, or as necessary to facilitate life-saving operations.
- Temporary protective measures to abate immediate hazards to the public for health and safety reasons until demolition are accomplished.
- Emergency contracting to support public health and safety, such as providing for potable water, ice, power or temporary housing.
- Technical assistance, including inspection of public and private structures.
- Provision of emergency power to public facilities.

13.6 Policies

- All public works and infrastructure services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- All public works and infrastructure services will be provided in accordance with existing local statutes, rules, and regulations.
- Continuity of Operations Plans (COOP) for emergencies will be established by each agency of a public works and infrastructure services.

13.7 Assumptions

- This ESF will make every reasonable effort to respond based on the situation, information, and resources available at the time of the incident.
- Need for specialized technical training for damage

assessment and restoration.

- Available resources may become limited due to high demand in a large-scale incident.
- All agencies will support this ESF as necessary.
- A large-scale incident may deprive substantial number of people access to food and water. In addition, substantial disruption to the commercial supply and distribution network, an incident may partially or totally destroy food products stored in the affected area.
- Public works and infrastructure shelter facilities will receive priority consideration for structural inspections to ensure safety of occupants and the continuation of essential functions.
- It is assumed there is major damage to large numbers of private residences and businesses and that people may be displaced for 72 hours or more, alternate shelters may need to be set up for these people.

13.8 General Concept of Operation

- Types of public works and infrastructure are roads, bridges, buildings, shelters, jetty, runways, ports, helipads, pipelines, reservoirs etc.
- The EOC will collect information on damaged public works and infrastructure for identifying requirements to repair these structures.
- While restoration of normal operations at public works and infrastructure is the primary responsibility of the owners of those facilities, ESF 7 provides the appropriate supplemental assistance and resources to enable restoration in a timely manner when requested.
- Direction and control of the operational capabilities for the public works and infrastructure will reside with the respective agencies.
- Close coordination will be maintained with other ESF's to determine activities and to track the status of response activities.
- The priority of activities will be determined jointly

between the Lead and Support Agencies.

- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

13.9 Organization Concept of Operations

- Lead Agency will deploy the necessary representation at the EOC. These representative(s) will remain in the EOC until deactivated or released by the EOC Director.
- The damage assessment representative will be an infrastructure specialist assigned from the supporting agency or private agency
- In case of a major disaster demanding technical resources beyond the capabilities of this ESF , additional resources will be mobilized from private agencies or neighbouring city.
- Identify the potential resources that could be mobilized.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.

13.10 Responsibilities and Actions

- Assess the gap-need of equipment support before any disaster.
- Emergency clearance of debris to enable reconnaissance.
- Establishment of priority list of equipments which will be required in the beginning.
- Coordinate and provide man-power and equipment for

debris clearance.

- Provide alternative routes, if main routes are affected
- Demolish unsafe buildings.
- Restore infrastructure like health centers, schools, important buildings.
- Initiate the reconstructions and unrecoverable important infrastructures like health centers, school buildings, and important buildings.
- Ensure quick restoration of water supply system and drainage system.
- Keep sewer pipes separate from drinking water facilities
- Organise disaster assessment teams.
- Keep a log of the safety of buildings and structures.
- Tag buildings and structures appropriately depending on damage.
- Communicate these tagging to EOC for proper securing up unsafe structure.
- To coordinate the training of engineers on damage assessment and restoration.

13.11 Activation

- EOC will activate lead agency, which will subsequently activate Support Agencies.
- This activation may include deploying ESF representative to the EOC.

13.12 Response on Activation

- The Lead Agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence from the EOC and vice versa.
- Assess the disaster situation and forecast public works and infrastructure response needs.
- Provide technical assistance to EOC and validate requests for public works and infrastructure resources.
- Establish communication with the other ESFs.

- Assess the disaster situation and determine the adequacy of public works and infrastructure response activities.
- Provide technical assistance to the other agencies providing public works and infrastructure.
- Validate requests from affected areas for public works and infrastructure resources.
- Manage the process for requests for assistance through EOC.
- Provide reports to the EOC response structure and anticipate future public works and infrastructure requirements.

13.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES

Emergency Support Function

14

**OIL & HAZARDOUS
MATERIALS**

**Lead Agency:
Directorate of Industrial Safety and
Health (DISH)**

Contact : Director
Industrial Safety and Health, (GoM)

Phone:

Fax:

www.

Email Id:dishmum@yahoo.co.in/dish.maharashtra@gmail.com

Chapter - 14

Emergency Support Function 14 OIL & HAZARDOUS MATERIALS

14.1 Agency

LEAD: Directorate of Industrial Safety and Health (DISH).

SUPPORT:

- Bhabha Atomic Research Center.
- National Disaster Response Force.
- Mumbai Port Trust (MbPT)
- Ex. Health Officer (Municipal Corporation of Greater Mumbai).
- Hindustan Petroleum Corporation Limited.
- Bharat Petroleum Corporation Limited.
- Rashtriya Chemicals and Fertilizers Limited.
- Fire Brigade
- Mahanagar Gas Limited, Petroleum & Explosive Safety Organization (Government of India).
- Oil and Naturel Gas Corporation Limited.
- Maharashtra Pollution Control Board.
- India Meteorological Department.
- Coast Guard
- Navy
- Civil Defense.

14.2 Purpose

- To establish & coordinate the basic roles and responsibilities for Oil & Hazardous Materials Response.
- Provide support in response to an actual or potential discharge and/or release of hazardous materials following a major disaster or emergency.

14.3 Mission

- To coordinate and organize resources in preparing for

responding to and recovering from hazardous material incidents which may impact life and property in Mumbai.

14.4 Legal Authorities

- Mumbai Police.
- Civil Defense.
- Directorate General of Civil Aviation.
- Bhabha Atomic Research Center.
- Bharat Petroleum Corporation Limited.
- Hindustan Petroleum Corporation Limited.
- Rashtriya Chemicals and Fertilizers Limited.
- Petroleum and Explosive Safety Organization (Government of India).
- Navy, Coast Guard.

14.5 Scope

- To provide coordinated response to actual or potential discharges and/or releases of hazardous materials by placing the response mechanisms of the supporting agency within the coordination structure that ensures the most efficient and effective use of resources.
- To prevent, minimize, or mitigate a threat to public health, welfare, or the environment caused by actual or potential hazardous materials incidents.
- To establish the lead coordination roles, the division and specification of responsibilities among agencies, and on-site response organization that may be brought to bear in response actions, including description of the organizations, response personnel, and resources that are available.
- This ESF is applicable to all departments and agencies with responsibilities and assets to support response to actual or potential discharges and/or releases of hazardous materials.
- To detect, identify, contain, clean up, or disposal of released hazardous materials. The actions can include stabilization of berms, dikes, or impoundments; capping of contaminated soils or sludge; use of chemicals and

other materials to contain or retard the spread of the release or to mitigate its effects; drainage controls; fences, warning signs, or other security or site control precautions; removal of highly contaminated soils from drainage areas; removal of drums, barrels, tanks, or other bulk containers that contain hazardous substances; and other measures as deemed necessary.

- Respond to actual or threatened releases of hazardous materials not typically responded but that, as a result of the disaster or emergency, pose a threat to public health or welfare or to the environment.
- Response activities to hazardous materials incidents include, but are not limited to, household hazardous waste collection, permitting and monitoring of debris disposal, water quality monitoring and protection, air quality sampling and monitoring, and protection of natural resources.

14.6 Policies

- Oil & Hazardous Materials Response activities and services will be provided regardless of economic status or racial, religious, political, ethnic, or other affiliation.
- Oil & Hazardous Materials Response activities and services will be provided in accordance with existing statutes, rules, and regulations.

14.7 Assumptions

- Overwhelmed by the extent of the response effort required to assess, mitigate, monitor, clean up, and disposal of hazardous materials released into the environment.
- There will be numerous incidents occurring simultaneously in separate locations, both inland and along coastal waters.
- Standard communications equipment and practices (phone lines, radio, etc.) will be disrupted or destroyed.
- Response personnel, clean-up crews, and response equipment will have difficulty reaching the site of a

hazardous materials release because of the damage sustained by the transportation infrastructure like roads, rails, bridges, airports, etc.

- Additional response/cleanup personnel and equipment will be needed to supplement existing capabilities and to provide backup or relief resources.
- Even if the disaster does not cause an actual release, there will be considerable concern about facilities that are located in or near the affected area. These facilities will need to be assessed and monitored.
- Laboratories responsible for analysing hazardous materials samples may be damaged or destroyed.
- Air transportation will be needed for damage reconnaissance and to transport personnel and equipment to the site of release.
- Emergency exemptions will be needed for disposal of contaminated material.
- Responders to be self-sufficient at the earliest.
- When a discharge or release involves hazardous material, the response will be consistent.
- Personal protective equipment and capabilities are not available and the area is contaminated with OIL & HAZARDOUS MATERIALS or other hazardous materials, these response actions may be delayed until the material has dissipated to a level that is safe for emergency response personnel to operate or until appropriate personal protective equipment and capabilities arrive, whichever is sooner.

14.8 General Concept of Operation

- Coordinate with appropriate agencies and organizations to ensure operational readiness.
- Develop and maintain Standard Operating Procedures (SOPs); Lead Agency will coordinate, integrate, and manage overall efforts to detect, characterise, contain, cleanup, dispose of or minimise releases of oil, hazardous substances and radioactive materials or Oil & Hazardous Materials weapons.

- Coordinate, integrate and manage overall efforts to prevent, mitigate, or minimise the threat of potential releases to the environment.
- Provide expertise on environmental effects of oil discharges, hazardous substance releases; Oil & Hazardous Materials weapons releases, pollutants, contaminants, and environmental pollution control techniques.
- To assure efficient response, damage information must be gathered quickly, analysed, and response priorities established as soon as possible.
- Prepare a Situation Analysis by reviewing reports, video, message traffic, status boards, and logs. This Situation Analysis continues throughout the response and short-term recovery phase and should include the following:
 - (a) A general description of the situation and an analysis of the ESF's operational support requirements.
 - (b) A prioritized listing of significant actions that will initiate to provide operational support.
 - (c) A list of agency contacts and including pre-arranged staging areas.
- Prepare After-Action Report to identify lessons learnt and improvements needed.

14.9 Organization Concept of Operations

- Identified in this Emergency Support Function, lead agency will coordinate oil and hazardous materials response efforts and coordinate all other efforts at the scene of a release or potential release.
- Any person who has knowledge of any spill or release of oil or hazardous substance will communicate to the Emergency Operations Center (MCGM) as soon as the spill or release is known.
- Prepare an inventory with locations of existing threats and facilities.
- Plan for responses to hazardous materials incidents; develop detailed procedures for identification, control

and cleanup of hazardous materials.

- Identify training and maintain a level of readiness through training for response personnel as specified in the SOPs.
- Provide for or obtain training in oil and hazardous response monitoring for hospital and emergency personnel in self-protection.
- Maintain a list of experts capable of performing emergency and/or remedial actions associated with a hazardous materials incident.
- Develop mutual aid with agencies, other agencies, contiguous agencies, and private agencies/organizations.
- Collect and utilize licensing, monitoring and/or transportation information from the agencies and/or private organizations to facilitate emergency response; and participate in and/or conduct exercises and tests.
- Assess the situation to protect life, health and the environment.
- Review initial reports of an incident and maintain surveillance over reported incidents that may require personnel and resources.
- Request additional information necessary to evaluate a hazardous materials or radiological incident.
- Consult with agencies to determine assistance necessary and/or available to mitigate health and environmental effects.
- Recommend evacuation or other protective measures;
- Determine the nature of the contaminant, the extent of the contaminated area and consult with support agencies/organizations to provide access and egress control to contaminated areas.
- Consult with EOC, about the need for decontamination.
- Coordinate decontamination activities with EOC ; seek cooperation of response teams, owner/shipper and environmental personnel during clean-up operations.
- Provide area security and prohibit all unauthorized personnel from entering area with assistance from ESF 2.

- Determine, in coordination with appropriate agencies/organizations, guidelines for re-entry of emergency personnel and residents.
- Conclude clean-up operations when all danger is past and the area has been declared safe by responsible personnel and restored to the Brihan Mumbai Electricity Supply & Transport condition possible.
- Coordinate with public information officers and provide updates to ESF 8.
- It may be necessary to communicate directly with the media/public on tactical operations and matters affecting public health and safety from the scene of an incident.
- Maintain financial records on personnel, supplies and other resources utilized and report expenditures.
- If responder himself or equipment had any damage it will be compensated for.

14.10 Responsibilities and Actions

- Maintain close coordination among all agencies.
- Provide damage reports and assessments.
- Facilitate resolution of any conflicting demands for hazardous materials response resources. Coordinate the programme of backup support from other regions to the affected area.
- Provide technical, coordination, and administrative support and personnel, facilities, and communications.
- Coordinate, integrate, and manage the overall effort to detect, identify, contain, clean up, or dispose of or minimise releases of oil or hazardous substances, or prevent, mitigate, or minimise the threat of potential releases.
- Provide expertise on environmental effects of oil discharges or releases of hazardous substances, pollutants, or contaminants and environmental pollution control techniques.
- Assess the effects of pollutants on environment.
- Acquire and disseminate weather data, forecasts, and

emergency information.

- Provide expertise on natural resources and coastal habitat, the environmental effects of oil and hazardous substances, and appropriate clean-up and restoration alternatives.
- Coordinate scientific support for responses in coastal and marine areas, including assessments of the hazards that may be involved.
- Predict pollutant movement, dispersion, and characteristics (atmospheric or marine) over time.
- Provide information on meteorological, hydrological, oceanographic conditions for marine, coastal, and inland waters; and Provide charts and maps for coastal and territorial waters.
- Direct response actions for releases of hazardous substances from vessels, facilities, and vehicles.
- Provide advice in identifying the source and extent of radioactive releases, and in the removal and disposal of radioactive contamination.
- Provide assistance on all matters relating to the assessment of health hazards at a response and protection of both response workers and the public health.
- Determine whether illnesses, diseases, or complaints may be attributable to exposure to a hazardous substance.
- Establish disease/exposure registries and conduct appropriate testing; and develop, maintain, and provide information on the health effects of toxic substances.
- Provide assistance and expertise in fish and wildlife resources, geology and hydrology, earthquakes and other natural hazards, minerals, soils, vegetation, mining activities, identification of hazardous substances, biological and general natural resources, cultural resources, matters affecting lands administered by the Department of the Interior, and matters affecting Indian lands and resources, National parks, wildlife refuges, and fish hatcheries.

- Provide expert advice on complicated legal questions arising from the response.
- Provide advice and assistance in coordinating an international response when a discharge or release crosses international boundaries or involves foreign flag vessels.
- Provide expertise on all modes of transporting oil and hazardous substances, including information on the requirements for packaging, handling, and transporting regulated hazardous materials.

14.11 Activation

- Different levels of activation will be operationalized depending on the nature and severity of the incidence.
- The activation is initiated on receipt of the emergency call.
- Upon determination by the Disaster Management Unit (DMU) staff of an impending or actual incident requiring evacuation capabilities or posing a significant threat to life and property in Mumbai, the Duty Officer or Operations Officer will request agency representatives to implement response activities from the EOC.
- Response may be activated at the request of an appropriate agency through the DMU when an emergency condition exists and requires the support.
- Upon activation, representative will implement existing SOPs support agency notifications.
- Deployment of personnel and resources will take place within the framework of the EOC direction and control decision-making process.

14.12 Response on Activation

- The lead agency representative will establish operations at the EOC as soon as possible after the notification and activation.
- As soon as the lead agency representative reaches EOC he will take briefings and updates about the incidence

from the EOC and vice versa.

- Update support agency staff and monitor activities.
- Determine response needs and available resources.
- Maintain complete logs of actions taken, reports, and resources needs and capabilities.

14.13 Deactivation

- Partial deactivation would occur based upon the extent of the current response and recovery actions and at the discretion of the Lead Agency.
- Full deactivation would occur at the termination of the operational elements at the EOC.

NOTES