

Training Module on Disaster Management for Urban Local Bodies

Aim of the Course:

The course aims at developing skills of the officers of urban local bodies working as disaster management teams to effectively manage different phases of disasters in urban areas.

Objectives:

At the end of the course, participants will be able to;

- Identify various urban disasters
- Conduct urban HRVC analysis
- Prepare urban disaster risk mitigation plans
- Develop response action plans during disasters in urban areas

Methodology:

The course uses participatory techniques such as desk exercises, case studies, projects, demonstrations, action planning, micro-films and lessons.

Expected Outcome:

- Participants would prepare city disaster management plan as follow up of the course
- Apply tools for Urban Risk Analysis
- Practice and rehearse the implementation of mitigation, relief and response action plans

Target Group:

The Group A and B officers of Urban Local Bodies, Development Authorities, Fire service officers, Home guards, Engineers and administrators etc., from line departments of the state Government.

Validation

Apart from daily assessment, the course will be validated by using immediate reaction questionnaires and oral feedback by the participants at the end of the course.

Contents:

The following five modules would constitute the course contents;

Module 1: Principles of disaster management and urban hazards (Disasters, hazard, risks and vulnerability)

Module 2: An overview of country, state and district level administrative, institutional and techno-legal regime structure of disaster management.

Module 3: Natural disasters – Urban planning for management of floods, earthquakes, landslides and epidemics.

Module 4: Manmade disasters – Urban fire and bomb blast safety measures and demonstration.

Module 5: HRVC analysis and preparation of city disaster management plan

Training Design on Disaster Management for Urban Local Bodies

Day I	Sessions I and II
Topic	<i>Introductory Activity</i>
Contents	<p>Introduction of Course Team and Faculty</p> <p>Introductory Game</p> <p>Expectations of participants</p> <p>Expectations of trainers</p>
Session Objective	<p>Participants will be able to;</p> <ul style="list-style-type: none"> • Share experiences in DM • List expectations from the course • Introduce themselves • Set ground rules for the course
Expected Outcome	<p>Listing of Expectations from the course</p> <p>Setting Ground Rules for Trainees and Trainers</p> <p>Limitations and scope of the training</p>
Method	<p>Introductory game</p> <p>Eliciting responses and Eliciting reactions</p>
Process	<p>Resource persons to introduce themselves, welcome the participants warmly.</p> <p>Introductory games: Participants to pair up and talk to each other - about their work, their families, their interests, their hobbies, etc. Participants will then introduce their partners in the plenary, so that all other participants get to know each other.</p> <p>Resource persons to define the objectives of the course and elicit the expectations of the participants from the course. Based on the above, the resource team may reset the course objectives. It is important that the resource team provide space and time for the</p>

	<p>participants to freely share their experiences and opinions, since the issues that emerge from their experiences will form the basis of the objectives of the course.</p> <p>Resource Person Course Team</p>
Performance Aids	Checklist, Flow Chart
Media	White Board/LCD Projector/PPT
Trainers	Course Coordinator and Faculty of CDM
Time	2 hours
Day I	Session III & IV
Topic	<i>Urban Disasters, DM Act 2005 and Disaster Management Plan</i>
Contents	<ul style="list-style-type: none"> - Disasters in Urban Areas in Karnataka - Disaster Management Act 2005 - SoPs for Urban Local Governments - Urban Risks and Vulnerability analysis - Risks Assessment Tools - City Disaster Management Plan
Session Objective	<p>Participants will be able to;</p> <ul style="list-style-type: none"> • Identify Hazards and Urban Vulnerability • Explain the salient features of the DM act • Describe SoPs for different departments including ULBs • Analyse H R V C for cities • Use risk assessment tools • List steps in preparation of City Disaster Management Plan
Expected Outcome	Will be able to prepare CDMP and rehearse it
Method	PPT, Lesson, Micro film, case study and Discussion
Process	The resource person conduct a group exercise for five minutes on Hazards and Impact vs Frequency of Hazards in Urban Areas. One representative from each group will present the group outcome.

	This will be followed by a pictorial presentation by the resource person on urban hazards, urban risks, tools of risk assessment, steps to mitigate the impact of hazards and preparation of CDMP. A few case studies will be illustrated during discussion.
Performance Aids	Checklist
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Faculty, CDM
Time	2 hours
Day I	Sessions V and VI
Topic	<i>Fire Safety Measures followed by Demonstration & Mock Drill</i>
Contents	<ul style="list-style-type: none"> - Fire hazards - Types of fire & Classification - Fire resistant measures in buildings - Types of equipments, application & Demonstration - Tools for rescue - Mock drill
Session Objective	<p>Participants will be able to;</p> <ul style="list-style-type: none"> • Describe the causes for fire hazards • Define the fire resistant measures in buildings • Recognize the application of fire control equipments • Rehearsal through mock drill
Expected Outcome	Will be able to prepare preparedness plan for fire fighting and rescue during disasters
Method	PPT/Case study/Demonstration/Rehearsal/Discussion
Process	The resource person will give the brief presentation about the fire hazards, define fire, types of fire, method of fire resistant measures for building safety using case studies and also explain the role of Fire & emergency Service during disasters.

	Further a mock drill on fire fitting and rescuing will be conducted at a open space for rehearsal for effective management during disasters.
Performance Aids	Checklist/Equipments/Materials for fire
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Regional Fire Officer, Fire & Emergency Services, Mysore
Time	02.00 Hours
Day II	Sessions I & II
Topic	<i>Urban Epidemics & Communicable Disease</i>
Contents	Types of communicable diseases Preventive measures for communicable diseases Prevention of outbreak of epidemics Plan at the city level for Health and Hygiene management with focus on disasters
Session Objective	Participants will be able to; <ul style="list-style-type: none"> • describe the reasons for urban health hazards • identify reason for communicable diseases • mitigation measures for health hazards • Plan preparation for health care management
Expected Outcome	Will be able to prepare preparedness an mitigation plan for Health and Epidemic management in urban areas
Method	PPT, case study and Discussion
Process	A pictorial PPT followed by discussion on outbreak of communicable diseases would be presented. The roles and responsibilities of Local authorities and ULB and district administration to control the outbreak of diseases will be discussed. A case study of an epidemic situation in a disaster affected urban

	area will be discussed through presentation. The RP also provides an outline for preparing a plan for health care management to contain the disaster situations. (Focus on health hazards due urban sanitation and pollution is required).
Performance Aids	List of communicable diseases Checklist for preventive measures for communicable diseases
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	District Surveillance Officer or DHO
Time	1 hours
Assessment	Quiz for 5 minutes to test the ToL
Day II	Sessions III & IV
Topic	<i>Earthquake and Landslide Vulnerability</i>
Contents	<ul style="list-style-type: none"> - Define earthquake & landslide - Classification & Causes - Methods for identification of vulnerable areas - Mitigation measurers
Session Objective	<p>Participants will be able to;</p> <ul style="list-style-type: none"> • Identify hazards and vulnerability • Explain the causes & mitigation measures • Identification of vulnerable areas • Apply the techniques for mitigation measures
Expected Outcome	Will be able to prepare vulnerability maps for preparedness and mitigation plan for earthquake and landslide management.
Method	PPT, Case study and Discussion
Process	The resource person will give the brief presentation on the process of occurrence of earthquake and landslide hazards and causes and the related issues will be discussed.

	This will be followed by a pictorial presentation by the resource person on the methods available for mitigation measures and tools of vulnerability assessment, steps to mitigate the impact of hazards. A few case studies will be illustrated during discussion.
Performance Aids	Nil
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Faculty of CDM
Time	2:00 Hours
Day II	Sessions V & VI
Topic	<i>Bomb Blasts and Bomb Disposal Safety - Demonstration of Equipment and Presentation</i>
Contents	Types of Bombs Impact of Bombs Preventive measures Safety precautions in bomb disposal Demo of bombs Cases of bomb explosions in different parts
Session Objective	Participants will be able to; <ul style="list-style-type: none"> • identify the precautions and preventive measures to be taken during bomb threats and disposal
Expected Outcome	Identify different forms of bomb threats and disposal methods
Method	PPT, Demonstration, case study and Discussion
Process	The resource persons make a pictorial presentation of different incidents of bomb explosion, bomb threats and bomb disposal procedures adopted by Bomb squad. This will be followed by demonstration of different explosive materials being used in bombs. A few cases of bomb explosions are presented. Finally, the preventive and safety precautions for community and school children are discussed.

Performance Aids	Models of bombs
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Bomb Squad from Karnataka Police
Time	2 hours
Assessment	Question answer
Day III	Sessions I
Topic	<i>GIS and Remote Sensing Applications in GIS</i>
Contents	<ul style="list-style-type: none"> • Introduction to GIS and Remotes sensing • Uses of GIS and Remote sensing • Preparation maps • Steps to adopt GIS
Session Objective	<p>Participants will be able to;</p> <ul style="list-style-type: none"> • Explain the uses of GIS and Remote Sensing in DM • Describe the steps in preparing maps/data base using GIS • Adopt GIS in DDMP preparation
Expected Outcome	Use of GIS in DDMP
Method	PPT and Discussion/ Question answer
Process	The RP will make a pictorial presentation on GIS and Remote sensing applications. During presentation, instances of how the GIS and Remote sensing data are synchronized to prepare maps will be presented. Particular focus on the use of GIS in preparing DDMP will be illustrated with examples.
Performance Aids	Nil
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Faculty of CDM
Time	1 hour

Day III	Sessions II
Topic	<i>Chemical and Industrial Disasters and Safety Measures</i>
Contents	<ul style="list-style-type: none"> - Chemical and Industrial hazards - Causes for Chemical and Industrial disasters - Rescue & preventive measures adopted in industries - Preparation of Industrial Disaster Management Plan - Mock drill
Session Objective	Participants will be able to; <ul style="list-style-type: none"> • Describe the causes for Chemical and Industrial hazards • Explain the rescue & prevention methods • Rehearsal through mock drill
Expected Outcome	Will be able to prepare preparedness plan for Industrial Disaster Management Plan as part of DDMP
Method	PPT/Case study/Demonstration/Rehearsal/Discussion
Process	The resource person will give the brief presentation about the chemical and industrial hazards, rescue and prevention techniques, case studies and also explain the role of fire & emergency Service during disasters.
Performance Aids	Checklist
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Dy Director, Factories & Boilers, Bangalore
Time	01.00 Hours
Assessment	Practice, Question and answering and list out learning points
Day III	Sessions III
Topic	<i>Storm Water Drainage and Flood Management – A Case Study of Bangalore</i>
Contents	<ul style="list-style-type: none"> • Flood situation in Bangalore

	<ul style="list-style-type: none"> • Problems in existing storm drainage system • Preventive measures • Project undertaken to revamp the SWD
Session Objective	Participants will be able to; <ul style="list-style-type: none"> • describe the reasons for floods in cities • prepare the plan for flood mitigation and Preparedness
Expected Outcome	Steps in Flood mitigation and preparedness plan
Method	PPT, Demonstration, case study and Discussion
Process	The RP will make a ppt on Flood situation in Bangalore. He will quote pictures, drainage maps of different areas prone to flood in Bangalore. Particular focus will be given to discussion on ; <ul style="list-style-type: none"> • Problems in existing storm drainage system • Preventive measures • Project undertaken to revamp the SWD
Performance Aids	Storm Water Drainage Maps of Bangalore and Project Documents
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	CE / Senior Engineers of BBMP
Time	2 hours
Assessment	Random questioning with 5 questions and answering
Day III	Sessions IV
Topic	<i>Earthquake safe Foundation Designs – NBC & BIS Code</i>
Contents	<ul style="list-style-type: none"> - Earthquake effects on human habitat - Foundation Designs - Bureau of Indian Standards - NBC of India 2005
Session Objective	Participants will be able to; <ul style="list-style-type: none"> • explain the steps in earthquake safe foundation designing

	<ul style="list-style-type: none"> Identify the earthquake safe foundations
Expected Outcome	Adopt Safe foundation methods in earthquake prone areas
Method	PPT, case study and Discussion
Process	The RP will make a PPT on different types safe foundations for earthquake prone areas. During the presentation, design parameters and earthquake safety considerations for earthquake zone II to V will be discussed. followed by Demo will be presented and question and answer session will be done during last 10 minutes
Performance Aids	Types of safe foundations and design steps List of BIS Codes
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Professors from IIT/NIT/IISC/ Tech. University
Time	1 hour
Assessment	Question answers
Day III	Session V
Topic	<i>HRVC Analysis and Preparation of City Disaster Management Plan</i>
Contents	<ul style="list-style-type: none"> HRVC Analysis Tools for risk assessment Steps in CDMP
Session Objective	Participants will be able to; <ul style="list-style-type: none"> Explain HRVC Apply tools for HRVC Steps in CDMP Outline for CDMP
Expected Outcome	Use HRVC tools for preparing CDMP
Method	Presentations and Group Exercise
Process	The RP will discuss the HRVC analysis and present the tools for HRVC

	analysis. This will be followed by Group activity on preparation HRVC analysis for four cities. Each group will do for one city. This will be followed by presentation and preparation of an outline structure for City Disaster Management Plan. Groups will finally make the presentation of outline CDMP.
Performance Aids	Nil
Media	White Board/LCD Projector/PPT/ Hand outs
Trainers	Faculty of CDM
Time	1 1/2 hour

Programme Schedule

Day/Sessions	Topic
Day One	
9.30 AM - 11.30 AM	Registration Eliciting expectations and course objectives Inauguration
11.45AM - 01.45 PM	Urban Disasters, DM Act 2005 and Disaster Management Plan
02.30 PM - 04.45 PM	Fire Safety Measures followed by Demonstration & Mock Drill
Day Two	
09.30 AM - 11.30AM	Urban Epidemics & Communicable Disease
11.45 AM - 01.30 PM	Earthquake and Landslide Vulnerability
02.30 PM - 04.45 PM	Bomb Blasts and Bomb Disposal Safety - Demonstration of Equipment and Presentation
Day Three	
09.30 AM - 10.30 AM	GIS and Remote Sensing Applications in GIS
10.30 AM - 11.30 AM	Chemical and Industrial Disasters and Safety Measures
11.45 AM - 12.45 PM	Storm Water Drainage and Flood Management – A Case Study of Bangalore
12.45 PM - 01.45 PM	Earthquake safe Foundation Designs – NBC & BIS Code
02.30 PM - 04.00 PM	HRVC Analysis and Preparation of City Disaster Management Plan
04.00 PM - 04.45 PM	Internal Validation