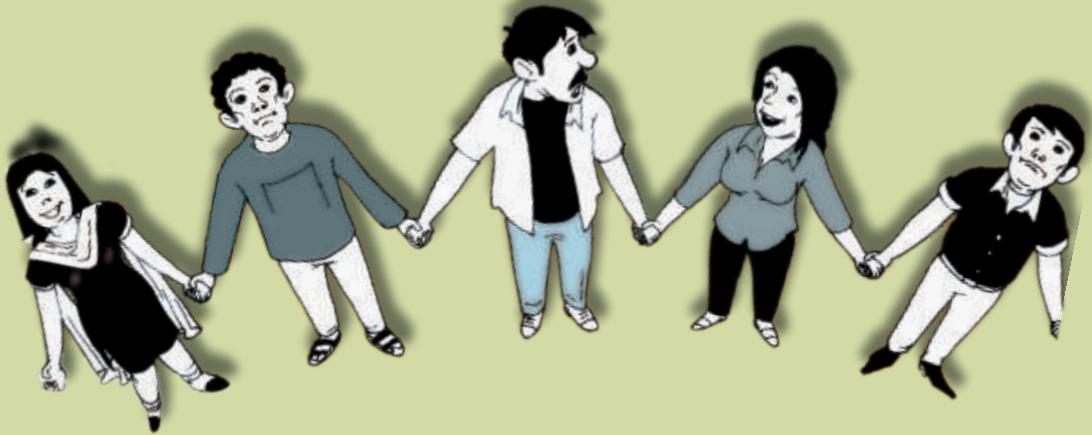




**Part - I**

**PREPARED COMMUNITIES, SECURED COUNTRY**



# **Hand Book for Training and Capacity Building of Civil Defence & Sister Organisation**

**April 2012**



**NATIONAL DISASTER MANAGEMENT AUTHORITY  
GOVERNMENT OF INDIA**

**Part - I**

# **HAND BOOK FOR TRAINING AND CAPACITY BUILDING OF CIVIL DEFENCE & SISTER ORGANIZATIONS**



## National Disaster Management Hand Book for Training and Capacity Building of Civil Defence and Sister Organisations

### **A publication of:**

National Disaster Management Authority  
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The National Disaster Management Hand Book for Training and Capacity Building of Civil Defence and Sister Organisations are formulated under the Chairmanship of Shri Jyoti Kumar Sinha, Member, NDMA in consultation with various stakeholders, regulators, service providers and specialists in humanitarian response from across the country.

# Preamble

The Hand Book for Training and Capacity Building of Civil Defence and Sister Organisations are published by the National Disaster Management Authority (NDMA) under Section 6 of the DM Act, 2005 for effective, efficient and comprehensive community based disasters management in India through the agies of Civil Defence and other such sister organisations. The vision of such effort is to minimize loss of life and property by enhancing the capacity of community for swift disaster management in the country.

Though the communities have been successfully managing disasters in the past, there are still a number of shortcomings which need to be addressed. The participation of community as a first responder in disaster situation has to be more comprehensive, effective, swift and well planned based on a well conceived approach to training.

Realisation of certain shortcomings in our community participation in disaster management and a desire to address the critical gaps, a core group of experts was constituted and four regional consultation workshops were conducted. It was ensured that representatives of the all CD training institutions of the country and MHA participate and their views given due consideration. The amended draft was again circulated to all States, UTs and their final comments were obtained and incorporated accordingly. Subsequently a comprehensive Hand Book for Training and Capacity Building of Civil Defence and Sister Organisations has thus been prepared and published for its successful implementation.



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Vice Chairman  
**National Disaster Management Authority**  
Government of India

## Foreword

The changing global geo-political scenario is characterized by decreasing occurrence of traditional wars. However, at the same time there is increasing devastation to life and property from asymmetrical warfare, terrorism and other Natural and Man-made disasters. Such a scenario, warrants a greater role on the part of the civil defence in disaster management in the country. The civil defence being a community based voluntary organization can in addition to rescue, relief and rehabilitation, also play a stellar role in the field of community capacity building and public awareness and prepare the community to face any kind of disaster, as is being done in other countries.

Realizing the importance of civil defence, Group of Ministers had desired revamping of civil defence in the light of the fact that new and complex challenges have emerged and accordingly civil defence preparedness need to be undertaken and evolve a concrete action plan. Accordingly National Policy Approach Paper on Civil Defence Revamping has recommended the strengthening of the organization with a view to involve them in disaster management frame work.

Consequent upon GOI's decision to revamp the CD structure, NDMA in collaboration with Disaster Management Support Project of USAID India had initiated Nation wide consultation through regional meetings to identify the skill and training needs of CD cadre in the disaster management frame work and develop a comprehensive training Hand Book for CD & sister organization. Based on the input received from States & experts an excellent document has been produced in terms of Hand Book which will help trainers for the conduct of classes on disaster management aspects.

I express my deep appreciation for the wholehearted support and cooperation of various stakeholders in preparation of this Hand Book (Part I). My special appreciation for the efforts of Shri J.K. Sinha, Hon'ble Member, NDMA and his team of officers in finalizing the document.

*New Delhi  
April, 2012*

  
*M. Shasidhar Reddy  
(MLA)*





Member  
**National Disaster Management Authority**  
Government of India

## Preface

The Indian subcontinent has been repeatedly hit by different disasters of terrifying magnitude with large scale devastation. Gujarat earthquake, Bihar floods, Odisha Super-cyclone or Tsunami in Tamilnadu, Andamans and Kerala have exposed the vulnerability of the country, its people, infrastructure and environment.

Disasters always need quick response to reduce the quantum of lives lost and property damaged. Past experiences has shown that the countries in which the government, the people and trained personnel joined hands together to face the calamities, recovered faster than the countries who were not prepared and so organized.

The National Policy Approach Paper on Civil Defence Revamping by Sri K.M.Singh, Member, NDMA have come out with a number of useful recommendations including training and capacity building. Armed with skills and proper equipments volunteer groups of the communities can play a vital role in managing disasters. The Policy paper advocates covering at least one per cent of the country's population under capacity building and community level preparedness. The Civil Defence organization has the potential to be a catalytic agent in this process. Realizing the need for a comprehensive training regime, the National Disaster Management Authority (NDMA), USAID and DMSP worked together to develop this Hand Book. It has been designed to meet the increasing need for training a critical mass of master trainers and cover various aspects of disaster preparedness and management in a user friendly manner supported by a variety of learning aids. It has a flexible structure so that each section can be detached and used a standalone module for a particular disaster and clientele.

Four regional consultations meetings held at Nagpur, Kolkata, Delhi and Thiruvananthapuram. It was a pleasure that a large number of DGs Civil Defence, Chief Wardens and Civil Defence Volunteers from all over the country participated in the and each one of them contributed their valuable suggestions. In this context the efforts of Sh. Mukund Upadhye IPS (Rtd), Sh. G. S. Saini, Director, National Civil Defence College Nagpur, Sh. A. Singh, IAS Secretary Civil Defence Govt.

of West Bengal, Sh. Rajan K. Medheker, IPS, Addl. Director General Civil Defence, Govt. of Kerala in providing knowledge based input are highly appreciated.

I would like to express my sincere thanks to the DM Division of MHA, former Director General Civil Defence & NDRF, Sh. Koshy Koshy, Ex-Executive Director, Sh. P.G. Dharcharbarty, Prof. Santosh Kumar and Col. Probodh K. Pathak from National Institute of Disaster Management, New Delhi and Prof. Vinod K. Sharma, Indian Institute of Public Administration, New Delhi for their valuable inputs.

I am also expressing my sincere thanks to Col J.R. Kaushik, Sr. Specialist (CD & NCC) Dr. M. C. Abani, Sr. Specialist, Maj. Gen V.K. Datta, Sr. Specialist (ME - CB), Maj. Gen R.K. Kaushal, Sr. Specialist (PP), Dr. Indrajit Pal, Associate Professor, CDM, Lal Bhadur Shastri National Academy of Administration, Mussoorie, Dr. Susanta Kumar Jena, Dr. Pavan Kumar Singh, and Sh. Nawal Prakash, Dr. Kumar Raka, Senior Research Officers, NDMA, Sh. Amod Kumar, Sh. Vinod Kumar Gupta, Dy. Chief Warden, Delhi Civil Defence and Sh. Rakesh Kumar Verma for extending unconditional support and assistance in the preparation of this document.

I also take this opportunity to thank Ms. Nina Minka, EX-Sr. DM advisor USAID India, Mr. N.M. Prusty, Ex-Chief of Party, Disaster Management Support Project and their team members and Praveen Kumar Amar, Disaster Management Consultant for the inputs & insights provided in developing and enriching this Hand Book.

I would like to place on record the significant contribution made by Prof. (Dr.) Bhagabanprakash, and the research team consisting of – Late Prof. Sibanarayan Mishra, Prof. Rabinarayan Panda, Dr. Mamata Dash, Sh. Radhakant, Sh. Chandrasekhar Rout and Sh. Shaktiranjan Patra.

Shri Binaya Bhusan Gadnayak, Specialist (IRS), NDMA requires a special mention for being instrumental in the entire efforts of preparation this training Hand Book.

Finally I would like to express my gratitude to Sh. M. Shashidhar Reddy, MLA, Vice Chairman NDMA and all the members of the NDMA for their guidance and suggestions in formulating this valuable document which will be of a great help for instructors to work out the methodology.



Shri J. K. Sinha,  
Member, NDMA

New Delhi  
April, 2012

## Acronyms

AERB	Atomic Energy Regulatory Board
AHUs	Accident Hazards Units
BAIID	Breath Alcohol Ignition Interlock Devices
BIS	Bureau of Indian Standards
BMHRC	Bhopal Memorial Hospital & Research Centre
BW	Biological Weapons
CATS	Centralised Accident and Trauma Service
CAPF	Central Armed Police Forces
CBDP	Community Based Disaster Preparedness
CC	Climate Change
CD	Civil Defence
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CH <sub>4</sub>	Methane
CNS	Central Nervous System
CO <sub>2</sub>	Carbon Dioxide
CPR	Cardio-Pulmonary Resuscitation
CRED	Centre for Research on the Epidemiology of Disasters
CSIR	Council of Scientific and Industrial Research
CSO	Civil Society Organisation
DM Act	Disaster Management Act
DRR	Disaster Risk Reduction
EMP	Electro Magnetic Pulse
EOC	Emergency Operation Centre
ERC	Emergency Response Centre
ERTS	Emergency Response Teams
EU	European Union
FAMs	Fire Alert and Messages
FGD	Focus Group Discussion
FSI	Forest Survey of India
GDP	Gross Domestic Product
GHGs	Greenhouse Gases

GT	Gigatons
GLOF	Glacial Lake Outburst Flood
GW	Global Warming
HCN	Hydrogen Cyanide
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immuno Deficiency Syndrome
HPC	High Power Committee
ICC	Incident Command Centre
ICMR	Indian Council of Medical Research
ICT	Information and Communication Technology
IDNDR	International Decade for Natural Disaster Reduction
IFRC	International Federation of Red Cross and Red Crescent Societies
IMCB	International Medical Commission on Bhopal
IMD	India Meteorological Department
IND	Improvised Nuclear Device
IPCC	Intergovernmental Panel on Climate Change
IRCS	Indian Red Cross Society
IRG	International Resource Group
IRS	Incident Response System
ITDG	Intermediate Technology Development Group
KPP	Key Programme Personnel
KV	Kilovolt
KVK	Krishi Vigyan Kendra
LCD	Liquid Crystal Display
LCE	Low-Carbon Economy
MAD	Mutually Assured Destruction
MCI	Mass Casualty Incident
MFIs	Micro Finance Initiatives
MIC	Methyl Iso Cynate
MMA	Mono Methyl Amine
MNCs	Multi National Companies
MSv	Millisievert
NaTs	Sodium Thi Sulphate
NASA	National Aeronautics and Space Administration
NCC	National Cadet Corps

NCDC	National Civil Defence College
NDRF	National Disaster Response Force
NIDM	National Institute of Disaster Management
NIMHANS	National Institute for Mental Health and Neuro Science
NMP	Neuro Motor Pathways
N <sub>2</sub> O	Nitrous Oxide
NPPs	Nuclear Power Plants
NSS	National Service Scheme
NYKS	Nehru Yuva Kendra Sangathan
OHP	Overhead Projector
OYVs	Organisational of Youth Volunteers
PPE	Personnel Projective Equipment
PPm	Parts per million
PPP	Public Private Partnership
RDD	Radiological Dispersal Device
START	Simple Triage And Rapid Treatment
SCBA	Self Contained Breathing Apparatus
SDMA	State Disaster Management Authority
SHGs	Self Help Groups
(S)he	She/he
SLS	Supplementary Learning Support
SMSs	Short Message Services
SOPs	Standard Operating Procedures
SSG	Social Service Guides
TB	Tuberculosis
TED	Trad Environmental Database
TREMCARD	Transport Emergency Card
TREMDATA	Transport of Radioactive Material Data
UCC	Union Carbide Corporation
UCIL	Union Carbide India Limited
UNDRO	United Nations Disaster Relief Organisation
VCD	Video Compact Disc
WMD	Weapons of Mass Destruction
WMO	World Meteorological Organisation
YRC	Youth Red Cross

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## List of Supporting Materials

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# List of Supporting Materials

## Note for User

Dear User of this Hand Book for training and capacity building of Civil Defence and Sister Organisation (Part I),

I am sure, you may be aware of the following frightening facts. Yet all of us together can make our community safer and the country prepared by promoting knowledge, awareness and skill among the people to work as first responders to any disaster.

### Some Hard Facts

- a) **Dec 9th 2011** – AMRI hospital fire - Kolkata - 90 patients died of suffocation.
- b) **Aug 13th 2010** – Leh - Cloud Burst - 33 Soldiers of the Indian Army went missing 1113 dead and 500 habitant missing in Leh.
- c) **Nov 11th 2009** – Fire at IOC, Jaipur - 12+ person died, 150+ people injured.
- d) **Aug - Sep 2008** – Kosi Floods - Over 30 lakh people in 1,598 villages spread over 15 districts were affected by the floods.
- e) **Year 2008** – At least 1000 people around India were killed in monsoon rains.
- f) **June 2005 Gujarat Flood** – More than 250,000 people evacuated. The loss due to flooding was estimated to be over Rs. 8000 crore.
- g) **26 December 2004** – In India, at least 10,136 people were killed and hundreds of thousands were rendered homeless by the Tsunami.
- h) **January 26, 2001** – The earthquake with Bhuj its epicenter, killed more than 20,000 people, injured another 167,000 and destroyed near a million homes throughout Gujarat.
- i) **October 1999** – Odisha supercyclone caused the deaths of over 10,000 people . Approximately 275,000 homes were destroyed, leaving 1.67 million people homeless.

- j) **17th August 1998** – About 380 people were killed and the entire village washed away by massive landslides at Malpa in Uttarkhand.
- k) **September 30, 1993** – Latur earthquake killed approximately 7,928 people and injured another 30,000.
- l) **2003 to 2008** – In India more than 1131 people have died and thousands injured in various incidents of temple stampedes, latest being the Chamunda Mata temple tragedy in Jodhpur.
- m) In the last eight years, there have been 21 bomb blasts in different parts of India, leaving 806 people dead and several hundreds injured.
- n) **May 20, 2008** – Illicit liquor death in Bangalore / Krishnagiri, toll was 156.
- o) **February 27 to march 3, 2002** – Godhra Train Burning and subsequent communal violence affected 151 towns and 993 villages in fifteen to sixteen districts of Gujarat. Approximately 1044 people of both the communities were killed in the violence.
- p) **July 21, 2001** – four carriages of Mangalore Mail train were derailed and fell into Kadalundi River killing of 57 people and injuring 300.
- q) **December 24, 1999** – Indian Airlines Flight 814 was hijacked to Afghanistan.
- r) **June 13, 1997** – 59 people died and over a hundred were seriously injured in Uphaar cinema fire.
- s) **12 November 1996** – Charkhi Dadri mid-air collision of Saudi Arabian Airlines Flight 763 with Air Kazakhstan Flight 1907 killed all 349 people on board.
- t) **23 December 1995** – A tent fire in Dabwali, Haryana killed 360 people
- u) **December 3, 1984** – Approximately 20,000 died in Bhopal gas leak.

These natural and manmade disasters in India in recent years underline a need for disaster preparedness on war footing.

This training Hand Book is an attempt to present before you a series of learning events on disaster management, keeping in view the training needs of Civil Defence, Home Guards and other volunteer based organisations.

### How this Hand Book was prepared

A Training Needs Assessment (TNA) was undertaken in all the four regions of the country before developing this document. The representatives of different organisations working on disaster management at various levels participated in it and gave their feedback.

As regards the disaster preparedness and response in the TNA, most of the respondents Stated that their present areas of focus were - **search and rescue, emergency relief, risk information, communication and community awareness**. Many of them, however, pointed out that there are knowledge and skill gaps in - **emergency preparedness, basic communication, conflict resolution, leadership and motivation skills, Incident Response System, environment and epidemics control, volunteer management, psychosocial support, ethics, gender, addressing needs of vulnerable groups, nuclear radiation hazards, minimum standards of disaster response, coordination with volunteer organizations and civil society groups as well as training methodology**.

Similarly, the most preferred training methods by the participants were – **audiovisual, participatory and experiential learning and field study as well as practical learning**. Classroom lectures were the least preferred. Some respondents emphasized the importance of **planning, teamwork, organization, networking, alliance building and pre disaster preparedness**. The need for a differential approach for various categories of trainees was also emphasized.

The Hand Book addresses most of these concerns. However, the real success would depend on the imagination, innovation and creativity of the facilitators and master trainers while implementing the training plan and sessions.

### How to Prepare the Training Program

It is recommended that well before the training begins, the Course Coordinator and the Training Team must go through the **section 1** entitled **Preparedness and Guidelines**. It is also expected that all the facilitators and trainers are familiar with various types of

training methods and skills as explained in **section 2** and **section 3**; and also have an understanding of the Civil Defence Organisations and their roles and responsibilities. Resource persons invited from outside the training institutions need to be adequately briefed about the objectives and methods.

**Training** is the best tonic for sustaining the motivation and competency level of a volunteer / volunteer based organisation. Organisations like Civil Defence need adequate number of **competent, proactive, committed** and **highly skilled** persons to work in an open, informed, participatory environment with focus on team work. Only training and retraining on regular basis could promote such professional, attitudinal and behavioural changes. It can sustain their interest, motivational level and keeps them connected with the cause and the community.

# Section 1

## Introduction and Executive Summary

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## 1.1. Introduction

The citizens of India have long been helpless victims of various natural and manmade disasters. But with increasing awareness and new policies, plans and strategies to meet the challenges, the situation has improved lately. Worldwide the number of disasters has increased from about 50 in the 1950s to 700 towards the end of 20th century. In view of the deaths and destruction wrought by a series of devastating disasters in different parts of the world, the United Nations observed the decade following 1990 as the International Decade for Natural Disaster Risk Reduction (IDNDR). The IDNDR was followed by the world Conference on Disaster reduction at Kobe in Japan in January' 2005. During this period India was hit by three super disasters, i.e. the Latur earthquake of September 30, 1993, the Odisha Super cyclone of October 1999 and then Gujrat earthquake of 26 January, 2001 while the country was celebrating it's Republic Day. The ruthless and relentless blows of these disasters exposed the inadequate preparedness of the country at various

levels. The need was felt for building a disaster intelligent and disaster resilient community led by an efficient disaster management structure.

The importance attached to disaster preparedness by the World and Media can be gauged by the fact that :

- a) A world conference on Disaster Reduction was organised in January, 2005 at Kobe, Hyogo, Japan and action plan prepared to make a Disaster resilient world.
- b) India was also a participant and agreed to the action plan.
- c) The High Power Committee (HPC) recommended the enactment of a Disaster Management Act and also suggested a framework of the institutional arrangement for effective DM.
- d) The DM Act passed in December, 2005 under entry 23 of the concurrent list of indian constitution to strengthen the DM initiatives in the country. The DM Act, 2005 created the National Disaster Management Authority (NDMA), headed by the Prime

Minister and the State Disaster Management Authority (SDMA) by Chief Ministers. The Act also created National Disaster Response Force. Presently it consist 10 Bn. which is fully trained and equipped to handle all types of disasters. The NIDM which had been created earlier under the MHA was brought under a governing body headed by the Vice Chairman of the NDMA. It was realized that large-scale training and capacity building on disaster issues coupled with massive community awareness and preparedness, would be the key element for building a safer India.

- e) Earlier in 2001, a High Power Committee (HPC) constituted by the Govt. of India had recommended involvement of Civil Defence in Disaster Management and keeping it in a State of continuous preparedness. Later the Home Ministry constituted a committee headed by a member of the NDMA Shri K.M. Singh to submit a comprehensive report on the revamping of the Civil Defence in the country. This Report also envisaged that a revamped Civil Defence could make trained manpower available to the State, district and local administration whenever there is any disaster. Civil Defence would be a community-based effort run by socially motivated trained volunteers.

It believes that government and the community should work together in synergy to meet any disaster. The committee recommended that Civil Defence should take up their new added role in community capacity building and public awareness in close coordination with Panchayati Raj Institutions (PRIs) and urban local bodies/Municipalities/Corporations.

- f) It was also suggested that the Civil Defence, primarily being a volunteer based organization with a skeletal regular staff, should use the services of other volunteer based organizations to supplement its resources in an overstretched disaster scenario. It should also collaborate with student and non-student youth organizations like the NCC, NSS, Scouts and Guides, NYKS to synergise efforts and resources for the common cause of disaster management. The process could be further strengthened by capacity building measures in order to develop a trained human resource. The concept and orientation of Civil Defence was also changed from "town- specific" to "district specific" in order to cover the whole district and the entire country. Every district now will have a group of volunteers spread all over the district trained to repond in case of Disaster.

## 1.2 Executive Summary

### 1.2.1 Stakeholders and Users of the Hand Book

This Hand Book has been designed and developed to cater to the training and

orientation needs of the following category of users / stake holders. The Hand Book is flexible, parts of which could be used to the specific focus areas of disaster management functions being done by different agencies in different vulnerable areas.

- a) National / Regional level CD institutions and Trainers
- b) CDTI Faculty
- c) NCC Trainers / Programme Personnel
- d) NSS Trainers / Programme Personnel
- e) NYKS Trainers / Programme Personnel
- f) Red Cross Trainers / Programme Personnel
- g) Scout and Guides/trainers / Programme Personnel /Volunteers
- h) Home Guard Trainers
- i) CD Volunteer Trainers and key Volunteers
- j) Home guard Volunteers
- k) NCC, NSS, NYK key Volunteers
- l) Red Cross Volunteers
- m) Civil Society Organizations / NGOs / Youth

### 1.2.2 Objectives of the Hand Book

- a) To promote awareness on various types and aspects of disaster and its challenges;
- b) To improve competency and skill level of Civil Defence trainers and volunteers on Disaster Management;
- c) To enable trainees to develop Action Plans on Disaster management,
- d) Mitigation and Risk reduction at all stages;
- e) To promote understanding of Disaster Management policies, principles, plans, practices, initiatives and structures at National and International Level and
- f) Building the capacity of Civil Defence personnel to work as **Master Trainers.**

### 1.2.3 Introducing Sections, Modules, Units

This Hand Book has been divided into two parts. Part-I is consisting with section 1 to 11 and Part-II is consisting with section 12 to 17. In Part-I of the Hand Book we have discussed concepts and issues; (1) Disaster Scenario and Institutional Arrangement for Disaster Management in India, (2) Disaster Management : Issues and Challenges, (3) Disaster and Development- Questions, Concept Clarifications, (4) Challenges of Volunteer Management in Disasters (5) Gender, Vulnerable Groups, Psychosocial Support, (6) Training Service for Civil Defence, (7) Action & Practice/ Training on Disaster, (9) Understanding Civil Defence Organisation and (10) Initiatives, Approaches and Strategies.

### 1.3. Introducing Sections, Modules, Units

Part-I of the Hand Book has 11 sections. All of them are thematic in nature and contain required handouts, supplementary materials have been placed in section 11 in the form of annexures.

#### **Section 1**

Entitled '**Introduction and Executive Summary**', this section introduces the module as a whole along with the objectives, introducing Sections, modules,

units, sample structure & plan for a session, suggested training schedules for the three categories of CD personnel, note for the trainers, and how to use parts of the present Hand Book as standalone modules and evaluation of Training/Orientation course.

#### **Section 2**

Gives an overview of **Disaster Scenario and Institutional Arrangement for Disaster Management in India** and deals with history and current situation of disaster, recent major disasters, multi-hazard zones in India, disaster management policies and disaster management practices in India. While discussing the conventional paradigm, the section also explores dominant perspectives and alternative approaches. It also deals with disaster management structures and institutions, disaster management action plans and guiding principles, new initiatives for disaster management, stakeholder co-ordination, linkages & networking as well as State and civil society responses towards disaster management.

#### **Section 3**

'**Disaster Management - Issues and Challenges**' focuses on Disaster management processes and principles, disaster preparedness - perspectives, challenges and new initiatives, effective CBDP - Why community needs to be

prepared for Disaster Management? How to build a disaster resilient community? Information, Communication, Early Warning Systems, Disaster Communication and Mass Media.

#### Section 4

**'Disaster and Development- Concept Clarifications'** basically aims at clarifying the concepts of Disaster and Development issues. It explains what is disaster, its various stages, what is development, disaster-development linkages, hazards, vulnerabilities, major disconnects in disaster response. The section also throws light on why disaster management is cost effective. It also has a session to familiarize with disaster vocabulary and terminologies.

#### Section 5

**'Challenges of Volunteers Management in Disasters'** explores the vital role of volunteers as well as volunteer based organizations in disaster management and the possible challenges. The section focuses on the role of volunteer based organizations, role and functions of volunteers during disasters, skills of volunteer selection, enrolment and retention, challenges of Volunteer Management - promoting spirit of volunteerism, measures to enhance volunteer motivation, promoting leadership and team building skills, training of volunteers for action, engaging

Civil Society Organisations, involving organisations of youth volunteers and synergy and convergence of voluntary efforts.

#### Section 6

Entitled **'Gender, Vulnerable Groups, Psychosocial Support'** basically deals with Gender Issues in Disaster: Addressing Vulnerabilities, Emergency Healthcare: Needs of vulnerable Groups, Psycho-social Support in Disaster.

#### Section 7

Entitled **'Training Service for Civil Defence'**, this section focuses on **What** and **Why** of training in disaster management, Training Needs Assessment, developing appropriate training strategy, identifying the target audience for training, setting objectives of the training, need for community capacity building, types of training programme for the target audience, deciding the training content, elaborating how to organize a training programme, how to make training programme participatory, how to develop skills and competencies, how to develop learning support aids, suggested training methodologies in CD context, selection and use of training methods, Importance of experiential learning in training programme, Role of games and activities in training, Evaluation of a training programme, and Do's and Don'ts

## Section 8

**'Action & Practice Training On Disaster'** is basically a skill oriented section which stresses upon Search and Rescue in disaster, basics of First Aid and practical like mock drills, exercises & field demonstration.

## Section 9

Entitled **'Understanding Civil Defence Organisation'**, this section gives a brief and holistic idea about the Civil Defence. It discusses Civil Defence and Disaster Management from a new perspective, organization, structure, functions, grey areas of CD, new roles & challenges envisaged for CD including roles and responsibilities of CD, High Power Committee (HPC) recommendations, public awareness and community capacity building as well as restructuring the CD services.

## Sections 10

These section Entitled **'Initiatives, Approaches and Strategies.'** It discusses **Humanitarian Charter & Minimum Standard of Disaster Response, Incident Response System for Management of Disaster Response, Early Warning Mechanism and Evacuation and Disaster Stereotypes, Imagery and Ethics.**

## Sections 11

These section Entitled **'Additional Support Materials.'** It focuses on **supplementary materials for further readings and to conduct training programme successfully. This chapter contains with; a) Training and Orientation Schedules for Senior CD & other functionaries, Planners, Policy Personnel, b) Senior and Middle level Officials and Key Programme Personnel including Trainers, c) Key Volunteers of CD, NCC, NYKS, NSS, Scout & Guides, Red Cross, etc., d) Registration Form, e) Session Evaluation Format, f) Field Visit Evaluation Format, g) Training Evaluation Format, and h) Post Training Evaluation Questionnaire.**

### 1.4. Sample Structure & Plan for a Session

A standardized and uniform structure has been developed for all the training sessions of this Hand Book. A sample structure of each session plan is given below.

#### Part- 1

- a) Subject/Theme;
- b) Introduction and Module Overview;
- c) Objectives;

- d) Methods;
- e) Materials/Learning Aids;
- f) Duration;
- g) Expected learning outcome;
- h) Cognitive / Knowledge related;
- i) Competency / Skill related;
- j) Sub-themes / Key learning points and issues;
- k) Important lessons learnt;
- l) Activity;
- m) Note to the trainer; and
- n) Further study / References.

#### Part-2

- a) Do's and Don'ts, guidelines; and
- b) Supplementary Learning Support Material.

#### Session Duration

The duration of each training session should be one and a half hours in the forenoon and one hour fifteen minutes in the afternoon. For practice training in the field the duration of the session could be stretched up to two hours if the situation so demands.

### 1.5. Suggested Training and Orientation Schedules

The **training schedules** for three broad categories of CD cadres namely **(i)**

**senior level CD, Home Guard and other senior functionaries working on disaster management issues. (ii) Mid-level Officials and Key Programme Personnel including trainers and, (iii) Key volunteers of CD, NCC, NYKS, NSS, Scout & Guides, Red Cross, etc.** are given in **Annexure-II, III, and IV** respectively.

The training content for each category has been chosen accordingly. For instance, since the training duration for senior level functionaries is for only one day, the content is broadly limited to policies, strategies, structures and functions, innovations and new initiatives and latest developments on the issue. Similarly for the one-week and two-week programmes aimed at the second and third category, the content covers more subjects, issues and practicals. A separate Hand Book on training service has also been developed to be used by **CD Training institutions** to create a critical mass of **master trainers**.

### 1.6. Guidelines for Facilitators/ Trainers

- a) This Hand Book can help the trainer/ facilitator in a number of ways, but it is not to be taken as the final word. The trainer/facilitator would have to decide which part (s)he would like to use. One may even have to

- add/modify some of the approaches and exercises to suit the particular environment and culture (s)he works in;
- b) After thoroughly going through the contents of Modules/Sections in this manual one should focus on the areas which (s)he thinks are most useful and relevant to the participants and which they themselves would want to know more about;
- c) Selecting the learning activities and adapting them to suit the special needs of the trainees are best done by the trainer guided by training assessment;
- d) A very important thing to remember when trying out sample activities or developing new ones is to assess how suitable they are for use in the localities and organizations of the participants;
- e) The activities adopted during the training must always be appropriate to the experience level, cultural orientation and circumstances of the participants;
- f) Activities should always be pre-tested before they are used during a training programme. They can be modified for different age groups, made more relevant to local circumstances, and discussion/questions can be adjusted or simplified where necessary;
- g) Secondly, special care is needed when developing or adapting activities for use the participants/volunteers who are illiterate or who only have basic literacy skills;
- h) In some of the activities included here, for example, it is suggested that someone in each small discussion group should write down a summary of what is said and use it to report back later to the larger group;
- i) This need not be a problem. Intelligent people who are not able to write usually have a very good memory, and can generally report back on group discussions without too much difficulty;
- j) Further, it should be remembered that flexibility is the key to success in every learning activity. A trainer/facilitator should never be afraid to cut short an activity if participants do not seem to be interested or have nothing to say;
- k) If this happens, use it as a positive opportunity or evaluation. Ask participants what they feel about it, what they did not like, and how it could have been made more relevant or useful to them;
- l) **Getting started:** Having established a need for the disaster management programme the facilitator must find a way to begin it. A session well begun is half done; and

- m) **Climate building:** In order to find out what can be a challenging area for disaster, it is essential to spend sufficient time on climate building and creating a proper atmosphere. Participants will need time to get to know each other, to establish what they want from the course, and to agree on how they are to work together as a group. This is important, regardless of the length of the session or course.

**There are numerous ways of getting participants to introduce themselves. Here are five examples.**

<p><b>Name and Introduction</b></p> <p>Each participant present in the session (starting with the trainer) writes on the board or a sheet of paper his/her first or pet name and a short sentence about oneself.</p>	<p><b>Personal Identification</b></p> <p>Place sheets of coloured paper in the centre of the floor together with coloured felt top pens. Explain to participants that you would like them in turn, when they feel ready, to take a pen and write their first name on the paper and say something about themselves, for example what they like about their name, what they like to be called, etc. You should begin and model this exercise. When all the names are on the pieces of paper, these should be displayed (e.g. stuck on the wall) for future reference. It also helps trainers to remember the names of the participants.</p>	<p>know each other. Ask participants to go around and say who they are and something about themselves, which nobody in the group knows.</p>
<p><b>Pairs Introduction</b></p> <p>Ask participants to find someone they do not know, and to spend a few minutes telling each other some things about themselves e.g. their name and something they would like others in the group to know about them. Ask each pair to find another pair with whom they are to repeat this exchange. Then ask participants to go around and repeat this with the whole group.</p>	<p><b>What nobody knows about me</b></p> <p>This is a useful exercise when people already</p>	<p><b>What we want to know about each other</b></p> <p>Ask participants to generate a list of things they would like to know about each other. As they do so, write them onto a flip-chart. Depending on the size of the group the next part of the exercise can be done either in plenary or in small groups. Then ask them in sequence to introduce themselves covering the topics from the list, with which they feel most comfortable. This exercise, particularly when conducted in small groups, can help to develop a sense of intimacy.</p>

n) **Agenda-Building**

It is important at the beginning of a course to clarify why participants are attending the training course. It is also useful to ask what participants expect from the course and also what they will contribute, emphasizing that this style of learning is based on mutual respect and sharing. In addition to clarifying what participants want from the training programme, it is also useful to identify specifically how they would wish to improve in their work as a result of attending the course.

o) **Ground Rules/ Favourable Working and Learning Conditions**

If a group is to work effectively and learn together, it needs to have a shared understanding. Identifying ground rules or learning conditions is also useful in helping a group to form and begin working together

There are several ways of doing this. Whichever way is chosen it is important that **participants themselves decide the rules** by which they wish to work and which are acceptable to the whole group. This can be displayed on the wall and the invitation extended to participants to alter these as the courses or session progresses. Some

matters you may wish to bring to the attention of participants include:

- i) CONFIDENTIALITY;
- ii) PUNCTUALITY;
- iii) THE RIGHT TO 'PASS';
- iv) THE OPORTUNITY TO TAKE RISKS;
- v) THE RIGHT TO CHALLENGE;
- vi) MAKING 'I' STATEMENTS;
- vii) CORRECT BEHAVIOUR; and
- viii) NO SMOKING, etc.

p) Alternatively, it might be helpful to explain to participants that rather than talking of 'rules' which imply penalties if infringed, it is usually more helpful to think in terms of behaviour and attitudes which the group needs to have if it is to be able to get on with the task which has brought it together.

It is therefore essential to explain this style of working at the start of any course and to ensure that people are willing to **contract** into it. In the ground rules or learning conditions it is important to discuss this notion of allowing ourselves to be challenged emotionally and intellectually. Realising this, the course introduces the **notion of challenging**.

q) **Before the Training Session**

- i) The trainer/facilitator needs to be prepared for the training

- session before it starts. One should prepare the teaching points by reading the introduction, overview and other learning support materials in the Hand Book. Also (s)he may add to her/his knowledge by additional reading, consulting other experts in the concerned subject/theme/ sub-theme;
- ii) **The trainer/facilitator as well as the participants must be comfortable** in talking with each other. One's attitude is reflected in one's words, gestures, facial expression, and tone of voice and choice of words;
  - iii) **The physical atmosphere** is equally important. The room should be spacious, well ventilated and with good lights. Drinking water should be provided;
  - iv) A **black/white board**, chalk and duster or large sheets of paper, or if these are not available, old newspapers on which a felt pen or charcoal may be used. **Pencils, papers, felt pens** for the participants should be stocked;
  - v) If an **overhead projector** is available, transparencies/ sheets should be projected;
  - vi) A screen would be helpful (if not, use a white wall or sheet), particularly if a **slide projector** for 35 mm slide is available. If a video and TV set is available, use it only if an appropriate video film for the session is available. Be sure you have seen it before the training session. Place it at the point you wish to show it. Videos usually help to initiate a discussion, or strengthen a point that is being emphasized. It could also be a quick summary of the session e.g. "Growing Up";
  - vi) Depending on the number of participants, a **microphone and amplifier** may be required;
  - vii) Through the amplifiers a cassette recorder can **tape any special talk** e.g. by a doctor or any other specialist; and
  - viii) Choice of audiovisual medium should be decided with care. When '**once only**' material is needed for an informal

audience, use **flip chart/OHP**. For a **lecture** arrange a **writing board**. When visual must be **altered** use **OHP/Magnetic board**. When materials are **more**, use **slides**. For preparation of **in-house material**, use **OHP**. When **on-line data** must be displayed use **Video Data Projector**. When presentation is to be given to senior policy makers **power point projector** should be used.

### 1.7. How to use each subject as Standalone Module

This is a comprehensive Hand Book to implement, for which, the minimum duration would be about two weeks. This Hand Book is flexible and contains a number of sections and each section has a number of sessions/units. Similarly each unit or session has a number of sub themes and key issues/learning points. However the Hand Book has been designed in such a way that each section could be taken out and used as a standalone module and can be organized as a separate training course or workshop. For instance in section 7 entitled Responses to Climate & water related disasters there are 7 units out of which one unit i.e., Cyclone could be taken out and used as a 'Standalone' training

module. In that case, each sub theme under the main theme could be assigned one or two sessions depending on the need of the trainees. An imaginative facilitator can find this process easy to implement.

### 1.8. Civil Defence Context

In section 4 of this Hand Book, the civil defence organizations have been presented in details. Yet, whenever a particular session is used as a standalone module, it should be prefaced with a brief presentation on civil defence and its new role in disaster management.

### 1.9. Evaluation of Training/ Orientation course

- a) Training is a planned and structured activity with the objective of transferring knowledge, information, skills, competencies, and also inculcating the needed attitude, behaviour, and practices in the trainee;
- b) It is, therefore, very important to initiate a **concurrent evaluation** of the process as well as the content at various levels from the very beginning;
- c) It is desirable that **after each session** at least 5 minutes is devoted to **topics covered** in the

- session, rating of its presentation by the resource persons and the actual learning achieved. Find out whether the **key objective** of the session has been met;
- d) Similarly in each succeeding day, during the **Recapitulation** the performance of the **previous day** can be assessed through feedback from the participants;
- e) At the end of the course, there should be a **full course evaluation** so that corrective measures could be taken in future;
- f) Some specimen evaluation format is given in Annexure which can be adapted/modified according to the nature of the training course to be offered; and
- g) In fact, the evaluation process should begin with the Registration form (given in the same Annex.) through which the training organization can obtain feedback about the trainees and their expectations. The **formats** annexed are:
- i) Session Evaluation;
  - ii) Field Visit Evaluation;
  - iii) Course Evaluation and Post-course Evaluation for the Trainees;
  - iv) Post-course Evaluation for Employer Organization; and
  - v) Course Director Evaluation.





# Section 2

## Disaster Scenario and Institutional Arrangement for Disaster Management in India

### Content

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## 2.1. Subject/Theme:

### Disasters and Disaster Management in India

#### PART-I

##### Introduction and Overview

Spread over an area of 3,287,590 sq. km, India shares its borders with Pakistan, Nepal, China, Bangladesh, Burma and Bhutan. The country has water on three sides; with the Bay Bengal in the east, the Arabian Sea in the west and Indian Ocean in the south. Various types of calamities including floods, tropical cyclones, droughts, earthquakes, Tsunamis, hailstorms, avalanches, fires and accidents take place from time to time, affecting different parts of the country – and causing varying degrees of damage.

The country is divided into 4 flood regions according to river systems. They are the Brahmaputra region, Ganga region, Indus Region and Central & Deccan region. On an average 40 million hectares are subjected to floods annually. 56% of the total area in

the country constitutes an active seismic zone of the 7516 kms long coastline, 5700 kms prone to Cyclone & Tsunami which causes deaths and damages to life and property every year. India has established a large network of organisations and facilities to respond to disasters. After the Indian Ocean Tsunami' 2004, the Govt. of India has taken a defining step through an Act of Parliament by adopting the 'NATIONAL DISASTER MANAGEMENT ACT' in 2005 and creating the 'National disaster Management Authority'. The Act envisages a paradigm shift from the relief centric response to a proactive prevention, mitigation and preparedness driven approach. In order to conserve the developmental gains and also minimize losses to lives, livelihoods and properties. (See Annexure VIII - National Disaster Management Act – 2005)

The National vision for disaster management is to build a safer and disaster-resilient India by developing a **holistic, proactive, multi-hazard and technology-driven strategy**. This is to be achieved through a culture of prevention, mitigation and preparedness. The entire process will

focus on community and will be supported and sustained through collective efforts of all government agencies and community based organisations.

### Objectives

To acquaint the trainees about various type of disasters affecting India and their impact.

### Methods

Presentation cum discussion

### Materials/Learning Aids

Disaster map of India, OHP/LCD, Pictures, Slides

### Duration

One session (For details refer page no. 9).

### Expected Learning Outcome

#### ***Cognitive/knowledge Related:***

- a) Enhance participants' knowledge about Indian disaster scenario.

#### ***Competency/Skill related:***

- a) Ability to identify disaster prone areas in the country and work with institutions and response networks.

### Sub-themes/Key Learning Points/ Issues

- a) History and current situation;
- b) Recent major disasters - an overview;

- c) Multi-hazard zones in India;
- d) Disaster management policy in India;
- e) Disaster management practices in India;
- f) Conventional paradigm, dominant perspectives and alternative approaches;
- g) Disaster management structures and Institutions;
- h) Disaster management action plans and guiding principles;
- i) Stakeholder co-ordination, linkages & networking; and
- j) State and civil society responses.

### Supplementary Learning Support Material

Handout on disaster management practices

### Further study/References

- a) Ch-1, pg 1-13, Disaster Development, vol.1, no. 1, ***Journal of the National Institute of Disaster management***, Publication of NDMA, GOI
- b) ***CBDM, An Information Guide***, VANI, New Delhi

### Note for the Facilitator

- a) Use maps and charts on vulnerable and multi-hazard prone areas in the country; and

- b) Distribute the handouts in advance to ensure informed participation;

## 2.2. Institutional and Legal Arrangements

### 2.2.1 DM Act, 2005

The DM Act 2005 and the National Policy on Disaster Management lay down institutional mechanisms at the National, State, District and Local levels. Though these institutions are at different levels, they will work in close harmony. The new institutional frameworks are expected to usher in a paradigm shift in DM from relief centric approach to a proactive regime that lays greater emphasis on preparedness, prevention and mitigation. The States which have not already put in place the appropriate institutional mechanism like SDMAs and DDMA have to take necessary steps in that direction at the earliest.

### 2.3. Institutional Framework under the DM Act

#### 2.3.1 National Disaster Management Authority (NDMA)

NDMA, as the apex body for DM, is headed by the Prime Minister and has the responsibility for laying down policies, plans and Guidelines for DM and coordinating their enforcement and implementation for

ensuring timely and effective response to disasters. The Guidelines will assist the Central ministries, departments and States to formulate their respective DM plans. It will approve the National Disaster Management Plan and DM Plans of the Central ministries/departments. It will take such other measures, as it may consider necessary, for the prevention of disasters, or mitigation, or preparedness and capacity building, for dealing with a threatening disaster situation or disaster. Central ministries/ departments and State Governments will extend necessary cooperation and assistance to NDMA for carrying out its mandate. It will oversee the provision and application of funds for mitigation and preparedness measures. NDMA has the power to authorise the departments or authorities concerned, to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster. The general superintendence, direction and control of the National Disaster Response Force (NDRF) is vested in and will be exercised by the NDMA. The National Institute of Disaster Management (NIDM) works within the framework of broad policies and Guidelines laid down by the NDMA and its governing body is headed by the Vice Chairman of the NDMA.

The NDMA is mandated to deal with all types of disasters, natural or manmade, whereas such other emergencies including

those requiring close involvement of the security forces and/or intelligence agencies such as terrorism (counter-insurgency), Law and Order Situations, Serial Bomb Blasts, Hijacking, Air Accidents, Chemical, Biological, Radiological and Nuclear Weapon Systems, Mine Disasters, Ports and Harbour emergencies, Forest Fires, Oilfield Fires and Oil Spills will continue to be handled by the extant mechanism i.e. National Crisis Management Committee (NCMC).

NDMA may, however, formulate Guidelines and facilitate training and preparedness activities in respect of CBRN emergencies. Cross-cutting themes like Medical Preparedness, Psycho-Social Care and Trauma, Community Based Disaster Preparedness, Information & Communication Technology, Training, Preparedness, Awareness Generation etc., for natural and man-made disasters in partnership with the stakeholders concerned. Resources available with the DM authorities at all levels, which are capable of discharging emergency support functions, will be made available to the nodal ministries and agencies concerned during times of such disaster(s)/impending disaster(s).

### 2.3.2 National Executive Committee (NEC)

The NEC comprises the Union Home Secretary as the Chairperson, and the Secretaries

to the GoI in the Ministries/Departments of Agriculture, Atomic Energy, Defence, Drinking Water Supply, Environment and Forests, Finance (Expenditure), Health, Power, Rural Development, Science and Technology, Space, Telecommunications, Urban Development, Water Resources and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committee as members. Secretaries in the Ministry of External Affairs, Earth Sciences, Human Resource Development, Mines, Shipping, Road Transport and Highways and the Secretary, NDMA will be special invitee to the meetings of the NEC.

The NEC is the executive committee of the NDMA and is mandated to assist the NDMA in the discharge of its functions and also ensure compliance of the directions issued by the Central Government. The NEC is to coordinate the response in the event of any threatening disaster situation or disaster. The NEC will prepare the National Plan for DM based on the National Policy on DM. The NEC will monitor the implementation of Guidelines issued by NDMA. It will also perform such other functions as may be prescribed by the Central Government in consultation with the NDMA.

### 2.3.3 State Disaster Management Authority (SDMA)

At the State level, except the UTs of Delhi where the LG is the Chairperson and the CM thereof is the Vice Chairperson, the State

authority (SDMA) headed by the respective CMs as chairperson will lay down policies and plans for DM in the State. It will, inter alia, approve the State Plan in accordance with the Guidelines laid down by the NDMA, coordinate the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures and review the developmental plans of the different departments of the State to ensure integration of prevention, preparedness and mitigation measures.

Each State Government will constitute a State Executive Committee (SEC) to assist the SDMA in the performance of its functions. The SEC will be headed by the Chief Secretary (CS) to the State Government and coordinate and monitor the implementation of the National Policy, the National Plan and the State Plan. The SEC will also provide information to the NDMA relating to different aspects of DM.

### 2.3.4 District Disaster Management Authority (DDMA)

Each DDMA will be headed by the respective District Magistrate, District Collector (DC), Dy. Commissioner as the case may be, with the elected representative of the Local Authority as the Co-Chairperson. DDMA will act as the planning, coordinating and implementing body for DM at District level and take all necessary measures for the purposes of DM in accordance with

the Guidelines laid down by the NDMA and SDMA. It will, inter alia, prepare the District DM plan for the District and monitor the implementation of the National Policy, the State Policy, the National Plan, the State Plan concerning its own District and prepare the District Plan. The DDMA will also ensure that the Guidelines for prevention, mitigation, preparedness and response measures laid down by NDMA and SDMA are followed by all Departments of the State Government, at the District level and the Local Authorities in the District.

### 2.3.5 Local Authorities

The Constitutional 73rd and 74th Amendment paved the way for local governments-Urban Local Bodies and Panchayati Raj Institutions (PRIs),

to play a greater role in matters of immediate concern. Though some of the enlisted items such as social welfare, health, maintenance of community assets, etc. can be said to indirectly address disaster impacts, there is a strong need to focus more direct attention on natural disaster reduction. Local bodies, with their grassroot level contact with the common people, can make a substantial contribution to the process of creating awareness and ensuring an active people's participation in disaster mitigation activities. They are the ideal channels for NGOs and other agencies that conduct any disaster management

programme, right from relief, recovery and rehabilitation to planning for mitigation and prevention. Awareness generation and sensitization programmes need to be conducted within these institutions for making them better equipped.

### 2.3.6 National Institute of Disaster Management (NIDM)

NIDM, in partnership with other research institutions has capacity development as one of its major responsibilities, along with training, research, documentation and development of a National level information base. It will network with other knowledge based institutions and function within the broad Policies and Guidelines laid down by NDMA. It will organise training of trainers, DM officials and other stakeholders. NIDM will strive to emerge as a 'Centre of Excellence' in the field of DM.

### 2.3.7 National Disaster Response Force (NDRF)

For the purpose of specialised response to a threatening disaster situation or disasters/emergencies both natural and man-made such as those of CBRN origin, the DM Act, 2005 has mandated the constitution of a NDRF. The general superintendence, direction and control of this force is vested in and exercised by the NDMA and the command and supervision of the Force will vest in an officer to be appointed by the Central Government as

the Director General of NDRF. Presently, the NDRF comprises ten battalions. Two additional battalions have been sanctioned by the Government and are in the process of being formed. These battalions are located at strategic locations and will be deployed proactively as required. NDRF units will maintain close liaison with the designated State Governments/ UTs and will be available to them in the event of any serious threatening disaster situation. While the handling of all natural disasters rests with all the NDRF battalions, presently four of them have been equipped and trained to respond to situations arising out of CBRN emergencies. In future plans exist to train rest of the battalions also for CBRN response. The NDRF units will also impart basic training to all the stakeholders identified by the State Governments in their respective locations. Further, a National Academy will be set up to provide training for trainers in DM and to meet related National and international commitments.

### 2.3.8 State Disaster Response Force (SDRF)

States will be encouraged to create response capabilities from within their existing resources. To start with, each State may aim at equipping and training a few companies in smaller States or one battalion equivalent force in the case of bigger States. They will also include women

members for looking after the needs of women and children. NDRF battalions and their training institutions will assist the States/UTs in this effort. The States/UTs will also be encouraged to include DM training in the basic and in-service courses of their respective Police Training Colleges for gazetted and non-gazetted police officers.

### 2.3.9 Disaster Mitigation Reserves

Experience of major disasters in India during the last decade has clearly established the need for pre-positioning some essential relief and response reserves at crucial locations, including some for the high altitude areas. These reserves are intended to augment the resources at the State level. Mitigation reserves will be placed at the disposal of NDRF for enhancing their emergency response capabilities for assisting the State Governments during a disaster or disaster-like situation.

## 2.4 Existing Institutional Arrangements

### 2.4.1 Cabinet Committee on Management of Natural Calamities (CCMNC) and the Cabinet Committee on Security (CCS)

CCMNC was constituted to oversee all aspects relating to the management of

natural calamities including assessment of the situation and identification of measures and programmes considered necessary to reduce its impact, monitor and suggest long term measures for prevention of such calamities, formulate and recommend programmes for public awareness for building up society's resilience to face calamities. The Cabinet Committee on Security (CCS) deals with issues related to the defence of the country, law & order and internal security, policy matters concerning foreign affairs that have internal or external security implications, and economic and political issues impinging on National security.

### 2.4.2 High Level Committee (HLC)

In the case of calamities of severe nature, Inter-Ministerial Central Teams are deputed to the affected States for assessment of damage caused by the calamity and the amount of relief assistance required. The Inter Ministerial Group (IMG), headed by the Union Home Secretary, scrutinises the assessment made by the Central teams and recommends the quantum of assistance to be provided to the States from the National Calamity Contingency Fund (NCCF). However, assessment of damages by IMG in respect of drought, hail-storms, and pest attacks continue to be carried out by the Secretary, Ministry of Agriculture and Cooperation. The recommendations of the IMG are considered and approved

by the High Level Committee chaired by the Union Agriculture Minister. The HLC comprises the Finance Minister, Home Minister, Agriculture Minister and Deputy Chairman of the Planning Commission as members. The constitution and composition of HLC may vary from time to time. The Vice Chairperson, NDMA will be a special invitee to the HLC.

### 2.4.3 Central Government

In accordance with the provisions of the DM Act 2005, the Central Government will take all such measures, as it deems necessary or expedient, for the purpose of DM and will coordinate actions of all agencies. The Central Ministries and Departments will take into consideration the recommendations of the State Governments while deciding upon the various pre-disaster requirements and for deciding upon the measures for the prevention and mitigation of disasters. It will ensure that the Central Ministries and departments integrate measures for the prevention and mitigation of disasters into their developmental plans and projects, make appropriate allocation of funds for pre-disaster requirements and take necessary measures for preparedness and to effectively respond to any disaster situation or disaster. It will have the power to issue directions to NEC, State Governments/SDMAs, SECs or any of their officers or employees, to facilitate

or assist in DM, and these bodies and officials will be bound to comply with such directions. The Central Government will extend cooperation and assistance to the State Governments as required by them or otherwise deemed appropriate by it. It will take measures for the deployment of the Armed Forces for DM if required. The role of the Armed Forces will be governed by the instructions laid out in Instructions on Aid to Civil Authorities 1970. The Central Government will also facilitate coordination with the UN Agencies, other International organisations and Governments of foreign countries in the field of DM. Ministry of External Affairs, in co-ordination with MHA, will facilitate external co-ordination and cooperation.

### 2.4.4 Role of Central Ministries and Departments

As DM is a multi-disciplinary process, all Central Ministries and departments will have a key role in the field of DM. The Secretaries of the Nodal Ministries and Departments of GoI i.e. the Ministries of Home Affairs (MHA), Agriculture, Civil Aviation, Environment and Forests, Health, Atomic Energy, Space, Earth Sciences, Water Resources, Mines, Railways etc. are all members of the NEC and will continue to function as nodal agencies for specific disasters based on their core competencies or as assigned to them.

#### 2.4.5 National Crisis Management Committee (NCCM)

NCCM, comprising high level officials of the GoI headed by the Cabinet Secretary, will continue to deal with major crises which have serious ramifications. It will be supported by the Crisis Management Groups (CMG) of the Central Nodal Ministries and assisted by NEC as may be necessary. The Secretary, NDMA will be a permanent invitee to this Committee.

#### 2.4.6 State Governments

The primary responsibility for DM rests with the States. The institutional mechanisms put in place at the Centre, State and District levels will help the States manage disasters in an effective manner.

The DM Act, 2005 mandates the State Governments, inter alia, to take measures for preparation of State DM plans, integration of measures for prevention of disasters or mitigation into State development plans, allocation of funds, establishment of early warning systems and to assist the Central Government and other agencies in various aspects of DM.

#### 2.4.7 District Administration

At the District level, DDMA will act as the planning, coordinating and implementing body for DM and will take all measures

for the purposes of DM in the respective Districts in accordance with the Guidelines laid down by NDMA and the concerned SDMA.

#### 2.4.8 Management of Disasters Impacting more than one State

At times, the impact of disasters occurring in one State may spread over to the areas of neighbouring States. Similarly, preventive measures in respect of certain disasters, such as floods, etc may be required to be taken in one State, though the impact of their occurrence may affect another. The administrative hierarchy of the country is organised into the National, State and District level administrations. This presents some difficulties in respect of disasters impacting more than one State. Management of such situations call for a coordinated approach which can respond to a range of issues quite different from those that normally present themselves, before, during and after the event. NDMA will encourage identification of such situations and promote the establishment of mechanisms on the lines of Mutual Aid Agreements, for coordinated strategies, for dealing with them by the States, Central Ministries and Departments and other agencies concerned.

## 2.5. Other Important Institutional Arrangements

### 2.5.1 Armed Forces

Traditionally, the Armed Forces are called upon to assist the civil administration only when the situation is beyond their coping capacity. In practice, however, the Armed Forces form an important part of the Government's response capacity and are immediate responders in all serious disaster situations. On account of their vast potential to meet any adverse challenge, speed of operational response, and the resources and capabilities at their disposal, the Armed Forces have historically played a major role in emergency support functions. These include providing services for communications, search and rescue operations, health and medical facilities and transportation, especially in the immediate aftermath of a disaster.

Airlift, helilift and movement of relief assistance and emergency response to neighbouring countries primarily fall within the expertise and domain of the Armed Forces. The Armed Forces will participate in imparting training to trainers and DM managers, especially in CBRN aspects, heli-insertion, high-altitude rescue, watermanship and training of paramedics. At the National level, the Chief of the Integrated Defence Staff to the Chairman Chiefs of Staff Committee is a member

of the NEC. Similarly, at the State and District levels, the local representatives of the Armed Forces may be included in their executive committees to ensure closer coordination and cohesion.

### 2.5.2 Central Armed Police Forces (CAPFs)

The CAPFs which are also the Armed Forces of the Union, play a key role at the time of immediate response to disasters. Besides contributing to the NDRF, they will develop adequate DM capabilities within their own forces and respond to disasters which may occur in the areas where they are deployed. The local representatives of the CAPFs wherever they are located may be co-opted or invited to attend the meetings of the executive committee at the State and District level.

### 2.5.3 State Police Forces, Fire Services and Home Guards

The State Police Forces, the Fire and Emergency Services and Home Guards are crucial and most immediate responders to disasters. The Police will be trained and the Fire and Emergency Services upgraded to acquire multi-hazard rescue capability. Home Guards volunteers will be trained in disaster preparedness, emergency response, community mobilisation, etc. The State Governments may take the help of NDMA for capacity building and sensitisation of their forces.

#### 2.5.4 Civil Defence (CD)

The mandate of the Civil Defence (CD) and the Home Guards has been redefined to assign an effective role in the field of disaster management. They will be deployed for community preparedness and public awareness. A culture of voluntary reporting to duty stations in the event of any disaster will be promoted.

A proper CD set up in every District will be a boon for disaster response as the neighbourhood community is always the first responder in any disaster. The proposal to make CD District centric and be involved in disaster response has already been approved by the GoI. Its phase wise implementation has also begun. The list of Districts that have been taken up for revamping Civil Defence in the first phase is given in the Annexure-XV. State Governments will ensure their operationalisation in their respective districts.

#### 2.6. National Civil Defence College (NCDC)

This Institute (erstwhile Central Emergency Relief Training Institute) was established at Nagpur as a sub-ordinate training establishment of the Ministry of Home Affairs way back in 1957, as part of the

erstwhile Emergency Relief (ER) Scheme to develop human resource for disaster relief and management in the country. The College is imparting different training courses in Civil Defence and Disaster Management. Recently, the Ministry of Forest and Environment has identified NCDC, Nagpur as one of the premier training establishment for chemical disasters. Office of Federal Disaster Agency (OFDA) of USA in collaboration with USAID and ADPC, Bangkok, Thailand has also selected NCDC, Nagpur as one of the advanced training centre in India for search & Rescue (SAR).

#### 2.7. Non-Governmental Organizations (NGOs)

Non-Governmental Organizations play an important role, with many international and National NGOs active in the area of disaster preparedness and response. There is a need for setting up a central NGO coordination committee for emergency relief efforts in collaboration with the government with the objective of strengthening the role of NGOs in emergency preparedness, response and mitigation, for easier coordination with the National, State and District Governments, the NGOs should respond in a coordinated way.

## 2.8. Role of National Cadet Corps (NCC), National Service Scheme (NSS) and Nehru Yuva Kendra Sangathan (NYKS)

Potential of these youth based organisations will be optimised to support all community based initiatives and DM training would be included in their programmes.



# Section 3

## Disaster and Management: Issues and Challenges

### Content

3.1.	Disaster Management: Processes, Principles and Perspectives	33
3.2.	Community Based Disaster Preparedness (CBDP)	38
3.3.	Disaster information, Communication and Mass Media	43

### Supplementary Learning Support materials

- ★ Handout on Components of Disaster Management, *p35*
- ★ Slide on Disaster Management Cycle, *p36*
- ★ Activity: Emergencies, *p37*
- ★ Slide on Traditional Approach Vs. CBD Approach, *p41*

- ★ Slide on Features of CBDM, *p42*
- ★ Slide on Guidelines for Disaster Communication, *p45*

# Section 3

### 3.1. Subject/Theme:

#### **Disaster Management: Processes, Principles and Perspectives**

##### PART-I

##### Introduction and Overview

This unit defines disaster management as an applied science and presents various approaches to it i.e., **relief and mitigation paradigms, observations and analysis of disasters, identification of hazard prone areas, patterns of physical vulnerability, alternate approaches to disaster management, development paradigm, risk reduction paradigm, building organisational capacity to manage hazards, improving knowledge and skill**, etc.

the Indian National Disaster Management Act, 2005 defines disaster management as a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for:

- a) Prevention of danger or threat of any disaster;

- b) Mitigation or reduction of risk of any disaster or its severity or consequences;
- c) Capacity building;
- d) Preparedness to deal with any disaster;
- e) Prompt response to any threatening disaster situation or disaster;
- f) Assessing severity or magnitude of effects of any disaster, evacuation, rescue and relief; and
- g) Rehabilitation and reconstruction.

##### **Objectives**

To update the learner about disaster management principles and practices including the importance of planning

##### **Methods**

Presentations by facilitator / resources person followed by interaction, discussion, question-answer, group work

##### **Materials/Learning Aids**

White/Black board, posters, slides

### **Duration**

Two Sessions (For details refer page no. 9).

### **Expected learning outcome**

#### ***Cognitive/Knowledge related:***

- a) Enhanced knowledge about various aspects of disaster management as an applied science.

#### ***Competency/Skill related:***

- a) Ability to analyse and identify hazards and vulnerabilities;
- b) Apply alternative approaches and strategies for effective disaster management; and
- c) Strengthen organisational capacity to manage disaster and mitigate its severity.

#### **Sub-themes/Key Learning Points/ Issues**

- a) Introduction: What is disaster management?;
- b) Approaches to Disaster Management: Dominant Approach and Alternative Approach;
- c) Systematic observations and analysis of disasters, to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery;
- d) Rehabilitation: Social Rehabilitation, Economic rehabilitation and Psychological rehabilitation;

- e) As a part of search and rescue;
- f) Disaster management cycles and components, i.e., response, recovery, risk reduction, preparedness; and
- g) More light on disaster response, need assessment, first aid, emergency food, medicines and water supplies; and restoring family links.

#### **Supplementary learning Support Material**

- a) Handout on components of disaster management;
- b) Slide on Disaster Management Cycle; and
- c) Activity.

#### **Further Study/References**

- a) ***Crisis management, From Despair to Hope***, Second administration Reforms Commission Report, 2006
- b) ***Yakohoma strategy and Plan of Action for a safer world***, 1995.

#### **Note for the Facilitator**

- a) The session should be conducted by an expert;
- b) In case one resource person is unable to handle all sub-themes engage more resource persons; and
- c) Conduct a couple of participatory exercises and group work.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Components of Disaster Management

a) **Risk Management**

Consists of identifying threats, determining their probability of occurrence, estimating impact of threats to communities at risk, determining measures that can reduce risk, and taking action to reduce threat.

b) **Loss Management**

Losses in a disaster include human, structural and economic losses. Loss management addresses these through pre and post-disaster actions designed to keep losses to minimum. Effective loss management activities occur prior to a disaster and are focused on reducing society's vulnerability to the disaster.

### Components of Disaster Management (Contd...)

c) **Control of Events**

Control is maintained through the following measures:

- i. **Anticipation of a disaster** and the cause and effect relationship generated by each type of event;
- ii. **Mitigation** or reduction of the scope of the disaster;
- iii. **Preparedness** – by viewing anticipated scope of disaster, managers can plan adequate responses;
- iv. **Accurate information collection and assessment** – once a disaster has occurred, the manager needs reliable data upon which to base priorities and guide response; and
- v. **Balanced response** – each type of disaster will require a different set of responses.

## Components of Disaster Management (Contd...)

d) **Equity of Assistance**

All disaster responses should be provided in an equitable and fair manner.

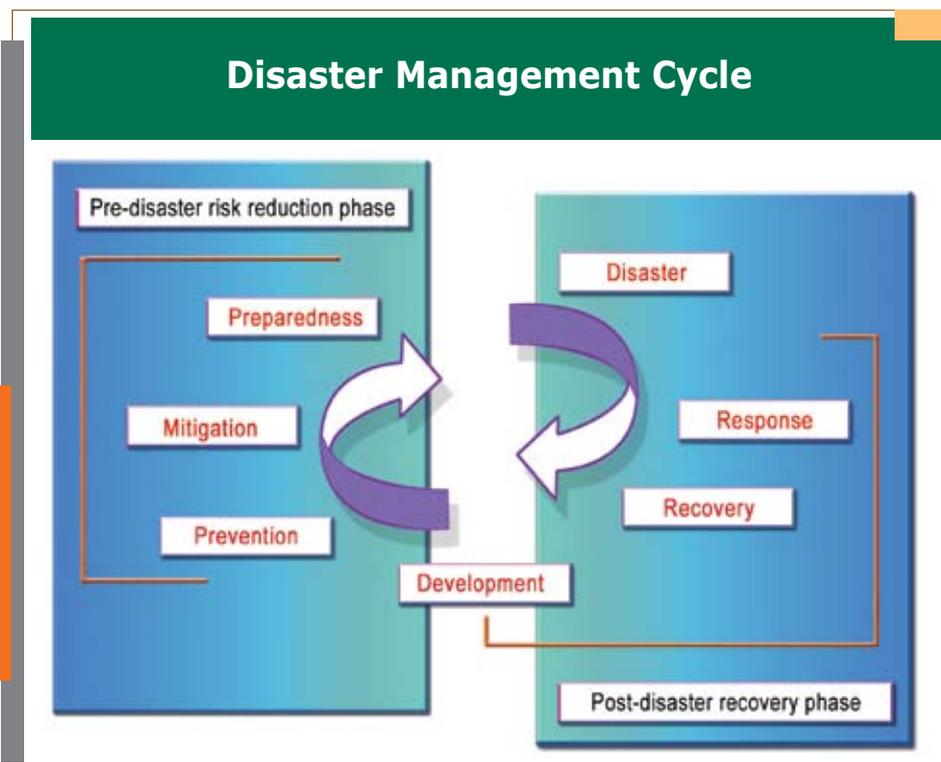
e) **Resource Management**

Few disaster managers have adequate resources to meet all competing needs and demands of a post disaster environment. Thus, resource management becomes a critical element of disaster response. The disaster manager must be familiar with the resources available.

SLS - 2

Slide

Section 3



## Activity on Emergencies

Put the participants into groups of four and ask them to answer these questions:

- a) **What did you do when your boat started sinking in the blue sea?**
- b) **What method did you use to revive the unconscious?**
- c) **When the river started flooding what did you do to rescue the lives of people?**
- d) **After disaster what did you expect?**
- e) **Presentation**
- f) **Facilitator to summarise**

### 3.2. Subject/Theme:

## Community Based Disaster Preparedness (CBDP)

### PART-I

#### Introduction and Overview

In the popular discourse on disaster “**Community-based**” or “**bottom-up**” approach is a relatively new concept. However, of late, it is now realized and recognised that with knowledge, skill, and infrastructure support a community can play a pivotal role in disaster related emergencies. In the prevalent approach, there is very little space for the communities as they are seen more as **problems, victims** and **beneficiaries** to be helped by the outsiders. The alternative perspective is to see the community as partners and a part of the solution. In fact, a sustainable way to face disaster is to recognize community as a **critical resource** and help prepare it for any disaster or emergency. Past experiences from different disaster-affected areas conclusively prove that the community preparedness is the most practical and dependable alternative of protecting people from a calamity.

Two important factors support this view. One of these is that community is almost always the first responder; **it is more knowledgeable about any disaster occurring in their area and often is**

**able to forecast it.** The second aspect is, **the community has experience of preparedness and coping in times of calamity.** Their coping methods are pre-tested and practiced. Yet communities lack resources, have poor access to information on time, have inadequate technologies for protection. An effective community preparedness strategy has to take care of these factors, identify gaps in their coping mechanism, provide support in terms of infrastructure, skill, information and warning systems and remove similar barriers to utilize the full potential of community efforts.

#### Objectives

Enable participants to understand importance of community-based initiatives in disaster mitigation and use communities as a valuable resource in disaster situation.

#### Methods

Presentation-cum-discussion, field visits, case study, group work, practice and demonstration.

#### Material and Learning Aid

Flip Charts, audiovisuals, sample building materials, ropes, stretcher and other tools of rescue and training.

#### Duration

Two sessions (For details refer page no. 9).

### Expected learning outcome

#### **Cognitive/knowledge related:**

- a) Awareness about community potential to manage disaster as first responders;
- b) Knowledge of strength and limitations of the community and ways to overcome it; and
- c) Understanding of community resources to meet disasters.

#### **Competency/skill related:**

- a) Ability to impart skills to the community to safeguard and protect itself;
- b) Help, set-up CBDP teams in villages;
- c) Building community capacity so that it can regain pre-disaster normalcy;
- d) Skills of providing Psycho-social first aid; and
- e) Knowledge of the methods of motivation, community organisation, community communication.

#### **Sub Themes / Learning points**

- a) What is community based disaster preparedness;
- b) Why community needs to be prepared for Disaster Management;
- c) Why is it important;
- d) What are the constraints and limitations;

- e) How to overcome these;
- f) How to strengthen local coping mechanism and knowledge base;
- g) Experience and lessons learnt from disaster affected areas about CBDP;
- h) Helping community to regain pre-disaster normalcy;
- i) Management of emotional phases: Psycho-social first aid to survivors/victims;
- j) Establishing **Village Disaster Preparedness Committees** - roles and responsibilities;
- k) Skills and techniques to be imparted to prepare individuals and families;
- l) Warning team, sanitation team, relief team, search and rescue team, evacuation team, first-aid team; and
- m) Safety procedures, Do's and Don'ts.

#### **Activity**

- a) Brainstorming on Traditional Approach and CBD Approach; and
- b) Practice and documentation session.

#### **Supplementary Learning Support**

- a) Slide on traditional vs CBDM approach; and
- b) Handout on features of CBDM.

### **Further Study/References**

- a) ***Disaster Mitigation, A Community based approach***
- b) ***Community based preparedness, Swedish Agency for development and Cooperation, New Delhi***
- c) ***Trainers' Guide on Community based disaster management, ADPC, Bangkok, 2001***

### **Note for the Facilitator**

- a) This is a thematic-cum-practise session, so organise a field work / practise session;
- b) Divide the participants into two thematic sub-groups and ask each sub-group to discuss the sub-themes and report to the plenary; and
- c) Present one or two appropriate case studies to conceptualize the subject.

PART-II: Supplementary Learning Support Materials

SLS - 1

Slide

**Traditional Approach vs. CBDM approach**

Traditional Approach	CBDM Approach
<p>1. Disasters are unforeseen events that cannot be prevented.</p>	<p>1. Disasters can be prevented. We can prepare ourselves to avoid/reduce damage and loss.</p>
<p>2. Stress is on emergency response and recovery.</p>	<p>2. Stress is on disaster management activities before the disaster, on prevention, mitigation and preparedness.</p>
<p>3. People affected by disasters are helpless victims and passive recipients of external aid.</p>	<p>3. People affected by disasters are active participants in rebuilding their life and livelihood. People's existing capacities are used and strengthened.</p>

## SLS-2

### Slide

#### Features of CBDM

- a) People's participation – community as the main participant and propeller, directly shares in the benefits of risk reduction and development.
- b) Priority given to the most vulnerable – children, women, elderly, differently abled, subsistence farmers, fisher folk and urban poor.
- c) Recognizes existing capacities and survival/coping strategies.
- d) Risk reduction measures are community specific – based on analysis of the community's disaster risk.
- e) The aim of CBDM is to reduce vulnerabilities and increase capacities.
- f) The Goal is to build safe, disaster resilient and developed communities.
- g) Links disaster risk reduction with development.
- h) Outsiders have supporting and facilitating role.

### 3.3. Subject/Theme:

#### **Disaster information, Communication and Mass Media**

##### **PART-I**

##### **Introduction and Overview**

Disaster risk reduction and technological interventions start with information and its appropriate communication/dissemination. The advance in information and communication technologies has now created greater scope for integrating different communication systems. Internet, mobile phones, fax, email, radio and television are now reaching out to a very large section of the population including marine and fishing communities. In this way communication plays a critical role in disaster management and response in reducing loss of life, damage to the property and environment.

The '**International Conference on Disaster Communication**' held in Tampere, Finland in 1991, reiterated the primary responsibility of National authorities in promoting effective communication capabilities. There is an urgent need to improve the nature, scope and quality of information being transmitted including its validity, significance, accuracy and timeliness. Mass media can facilitate this process in providing public information services to communities at risk. More over,

terrestrial and satellite communication & networks and remote sensing technologies will continue to play a major role in reducing the devastating impact of the disaster.

##### **Objectives**

- a) Enable participants to have basic knowledge on information and communication in disaster situation;
- b) Highlight importance of information in disaster and reporting situation;
- c) Clarify role of volunteers as information scouts; and
- d) Focus role of mass media in public education and information relating to disaster.

##### **Methods**

Lecture-cum discussion, question and answer, Practical sessions, games and exercises

##### **Materials/Learning Aids**

Flip charts, marker, Video clips, OHP

##### **Duration**

Two sessions (For details refer page no. 9).

##### **Expected Learning Outcome**

##### ***Cognitive/Knowledge related:***

- a) Enhanced knowledge on communication, report writing, case presentation

**Competency/Skill related:**

- a) Participants are able to inform, educate and empower communities towards disaster preparedness and mitigation.

**Sub-themes/Key Learning Points/ Issues**

- a) What is disaster communication;
- b) Importance of information;
- c) Tampere conference recommendations;
- d) Emerging role of ICT (Information and Communication Technology);
- e) Critical role of mass media;
- f) Restoring communication links;
- g) Present limitations;
- h) Organisational regularities barriers to flow;
- i) Ways of overcoming these barriers;
- j) Roles of communication in disaster, risk reduction, mitigation;
- k) Six broad communication categories of such communication: ;
  - i) Technical communication systems
  - ii) Disaster site communication
  - iii) Organisational communication
  - iv) Communication for scientific development

- v) Policy formulation
- vi) Communication for public education

- l) Risk communication cycle; and
- m) Application areas - **informing, educating, motivating behaviour change, exchange information, Issuing disaster warning.**

**Supplementary Learning Material**

- a) Handout on information and reporting in disaster situation (IRCS-p-136-137);
- b) Possible functions of mass media in disasters- a matrix (DC-p-86); and
- c) Handout on 6 broad categories of communication.

**Activity**

Roleplay on information and communication during disaster

**Further Study/References**

- a) **Disaster Communication**
- b) **Role of ICT in achieving Millennium Development Goals,** Policy Maker Workshop, M.S. Swaminathan Foundation, October'2003,
- c) **The Socio-Economic Benefits Earth Science and Application Research,** Ray A. Williamson, NASA, 2001.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

Slide

### Guidelines for Disaster Communication

- a) Inform the public on various matters to raise their level of preparedness.
- b) Inform the public about the current situation.
- c) Inform the public about what was happened.
- d) Inform the public about the prognosis or diagnosis.
- e) Advise the public on course of action appropriate to the event.
- f) Advise the public on the action being taken by authorities and aid groups.
- g) Relay messages concerning the welfare of isolated groups within the community.
- h) Maintain a reassuring presence.



# Section 4

## Disaster and Development- Questions, Concept Clarifications

### **Content**

4.1.	Understanding Disaster: Definition and Perspectives	49
4.2.	Economic and Social Impacts of Disasters	62
4.3.	Familiarising with Disaster Vocabulary and Terminologies	68

### **Supplementary Learning Support materials**

#### ***Handouts***

- ★ Definition of Disaster, *p52*
- ★ Broad Categories of Disasters, *p55*
- ★ Risk and Vulnerability: Some Definitions, *p58*
- ★ Human made Disasters, *p29*

- ★ Hazard, Vulnerabilities and Disaster, p61
- ★ Economic Impact of Disasters, p66
- ★ Is Disaster Prevention Cost-effective, p67

**Slide**

- ★ Hard Facts of Disaster, p54
- ★ Types of Disaster, p55
- ★ Impact of Disaster on Health, Hygiene and Sanitation, p64
- ★ Common Medical Problems during Disasters, p65

## 4.1. Subject/Theme:

### Understanding Disaster: Definition and Perspectives

#### PART-I

##### Introduction and Overview

This module is an introductory narrative, and focuses on defining various kinds of disasters and their classifications. It also categories them into three groups and presents the current thinking and paradigm shifts in approaches to disaster. It covers various aspects, types of disaster i.e.- natural, human induced and others, etc. and through a brainstorming and participatory discussion enhances the participants' understanding of the issues.

Natural calamities and disasters are as old as and even older than human history. People look at it in different ways. In South Asian traditional societies people pray, offer ceremonial sacrifice to please gods of nature to avoid or protect against disasters along with traditional preventive and recovery measures.

Current thinking on disaster and their management falls into two main paradigms:

#### a) **Conventional paradigm**

Influenced by natural science and applied science approaches with focus on geographical and hydro-meteorological process.

#### b) **Alternatives paradigms**

Based on a combination of social science and holistic approaches – linking disaster to vulnerability and unsustainable development, moving away from rescue, relief and recovery centric approach to planning, prevention, mitigation and preparedness driven approach.

#### **Objectives**

- a) To arrive at a common understanding of what we mean by disaster various aspects/types and perspectives; and
- b) To enhance knowledge and understanding of disaster issues.

## Methods

Introduction of the subjects followed by discussion and questions and answers, Brainstorming, participatory interaction, consensus building and open guided discussion

## Materials/Learning Aids

White board, flip charts, slides, OHP, power point, marker pen, blank papers, various pictures of hazard, vulnerability, and disaster.

## Duration

Four sessions (For details refer page no. 9).

## Expected Learning Outcome

### ***Cognitive/knowledge related:***

- a) Updated and informed on-current debates on disaster, improved clarity.

### ***Competency/Skill related:***

- a) Participants are able to differentiate between categories of disasters and distinguish the paradigm shift in perspectives; and
- b) Participants are able to play an effective role in influencing policy and public opinion on the issue.

## Sub-themes/Key Learning Points/ Issues

- a) What is a Disaster?;
- b) Causes of disaster;
- c) Various stages of Disaster;
- d) Types of disasters – Natural disaster, Human induced disasters, Biological disasters, other disasters;
- e) Disasters identified by the High Power Committee;
- f) Hazards, vulnerabilities during a disaster;
- g) What is Disaster Risk Reduction?; and
- h) Why do people live with Risks?

## Activity

Brainstorming on definition of disaster and listing of Disaster types. After introductory remarks by the facilitator trainees/ participants are divided into pairs, each pair is asked to give an agreed definition and a list of disasters and pastes it on the board or write on flip chart. The Group participates in eliminating repetitions. The facilitator clarifies and resolves contradictions through participatory consensus.

## Supplementary Learning Support Materials

Handouts and Slides on definition of disaster, types of disasters, HPC definition, Risk and vulnerability.

## Further Study/References

**Disasters identified by HPC** - D.D. (Vol, No-1 p-22)

## Note for the Facilitator

- a) Before presenting the definitions,
  - i. Find out if there was broad agreement among participants about the definitions of disaster and resolve if there were any differences.
  - ii. Similarly find out the agreement on the types of disasters and their classification.
  - iii. Show them pictures of different types of disasters and ask them to categorise.



## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### *Handout*

#### **Definition of Disaster**

Disaster has been defined differently by various agencies and individuals. Some definitions are quoted here:

#### **Various definitions of Disaster**

- a) According to the National Disaster Management Act' 2006, "Disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- b) According to Oxford Dictionary, Disaster means a sudden or great misfortune, calamity.

#### **Various definitions of Disaster (Contd...)**

- c) A sudden calamities event producing great material damage, loss and distress (Webster's Dictionary)
- d) An event, natural or manmade, sudden or progressive, which impacts with such severity that affected community has to respond by taking exceptional measures (AD Disaster Management Handbook)

### Various definitions of Disaster (Contd...)

- e) Any natural or manmade catastrophe, which renders a community into a State of chaos or powerlessness.
- f) A sudden, serious disruption of the functioning of a society, that causes wide spread human, material and environmental losses exceeding, the ability of the affected community or/and the country to cope using its own resources.

### Various definitions of Disaster (Contd...)

- g) An event concentrated in space and time, that subjects a society to severe damage and such serious losses of human life or such major material damage that the – local social structure breaks down and the society is unable to perform any or some of its key functions. UNDRO(1987)
- h) An occurrence of a severity and magnitude that normally results in death, injuries and property damage, that cannot be managed through the routine procedure and resources of government. It usually develops suddenly and unexpectedly and requires immediate, coordinated and effective response by government and private sector organisations to meet human need and speedy recovery. (HPC, India)

### Various definitions of Disaster (Contd...)

- i) A situation or event which overwhelms local capacity, necessitating a request to National or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering. Centre for Research on the Epidemiology of Disasters (CRED)

## Various definitions of Disaster (Contd...)

- j) The CRED prescribes criteria to be fulfilled for calling an event as a disaster. These are:
  - i) Ten or more people recorded killed
  - ii) 100 people reported affected
  - iii) Declaration of State of emergency
  - iv) Call for international assistance

### SLS - 2

#### Slide 1

## Hard Facts of Disaster

- a) 30 percent of landmass in India is prone to earthquakes of moderate and 28.6 percent to high to very high intensity
- b) Over 40 million hectares (12 per cent of land) is prone to floods and river erosion
- c) Of the 7,516 km long coastline, close to 5,700 km. is prone to cyclones and Tsunami
- d) 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches

*Source – India Today, March 31 , 2008*

Slide 2

## Types of Disaster

Disasters are categorized into 3 groups

- a) **Natural Disaster:** Flood, cyclones, landslides, earthquakes, hurricane, wildfires, avalanches, tsunami, etc.
- b) **Human Induced Disaster:** War, conflicts, terrorist strikes, road and train and air accidents, nuclear accident, bomb blasts, ozone depletion, climate change.
- c) **Consequences of Industrialization:** Factories explosions, heat waves, urban flooding, epidemics, bird flu, other biologically induced disasters.

SLS - 3

Handout

## Broad Categories of Disasters Water and Climate related disasters

- a) Floods and Drainage Management;
- b) Heat Wave and Cold Wave;
- c) Cyclones;
- d) Tornadoes and Hurricanes;
- e) Hailstorm;
- f) Cloud Burst;
- g) Snow Avalanches;
- h) Droughts;
- i) Sea Erosion; and
- j) Thunder and Lightning.

## Broad Categories of Disasters (Contd...)

### Geologically related disasters

- a) Landslides and Mudflows;
- b) Earthquakes;
- c) Dam Failures / Dam Bursts; and
- d) Mine Fires.

## Broad Categories of Disasters (Contd...)

### Chemical, Industrial and Nuclear related disasters

- a) Chemical and Industrial Disasters; and
- b) Nuclear Disasters.

## Broad Categories of Disasters (Contd...)

### Accident related disasters

- a) Forest Fires;
- b) Urban Fires;
- c) Mine Flooding;
- d) Oil Spill;
- e) Major Building Collapse;
- f) Serial Bomb Blasts;
- g) Festival Disasters and Fires;
- h) Electrical Disasters and Fires;
- i) Air, Road and Rail Accidents;
- j) Boat Capsizing; and
- k) Village Fire.

## Broad Categories of Disasters (Contd...)

### Biologically related disasters

- a) Biological Disasters and Epidemics;
- b) Pest Attacks;
- c) Cattle Epidemics; and
- d) Food Poisoning.

## Broad Categories of Disasters (Contd...)

### Slow Onset disasters

Climate change, desertification, soil erosion and drought come under Slow Onset disasters. Slow onset disasters are also term as 'Creeping Emergencies

(Earthquake, cyclone, floods, and tsunamis would fall on rapid onset disaster.)

## SLS - 4

### Handout

#### Risk and Vulnerability: Some Definitions

##### Risk

- a) Risk includes two elements - **the likelihood of something happening and the consequences if it happens;** and
- b) Risk occurs where factors and processes are sufficiently measurable for believable probability distributions to be assigned to the range of possible outcomes.

These definitions indicate the importance not only of recognizing that risk occurs but also of being able to measure its level (e.g. severe, moderate or minor).

#### Risk and Vulnerability: Some Definitions (Contd...)

##### Vulnerability

- a) Vulnerability is the susceptibility to harm of those at risk;
- b) Vulnerability is the coping capacity of those at risk;
- c) Vulnerability is the degree of susceptibility and resilience of the community and environment to hazards; and
- d) Vulnerability depends on the characteristics of a person or a group in terms of capacity to anticipate, cope with, resist and recover from the impact of hazard.

Source *Disaster Communication – A Resource kit for media*, Amjad Bhatti, Madhavi Malalgoda Ariyabandhu, A Duryog Nivaran Publication, 2002.

## SLS - 5

### Handout

#### Human made Disasters

Any incidence caused directly or indirectly (knowingly or unknowingly) by human activities leads to be a disaster is known as a human made disaster. In other words it can also be defined that any disaster which is not caused by natural process and natural phenomenon is a human made disaster.

#### Types of Human made Disasters Due to social and political conflicts

- a) Civil strife;
- b) War; and
- c) Riots.

#### Types of Human made Disasters (Contd...) Due to scientific inventions/advancements

- a) Industrial;
- b) Chemical; and
- c) Nuclear.

### Types of Human made Disasters (Contd...) Due to environmental degradation

- a) Pollution;
- b) Global warming and climate change; and
- c) Deforestation and shifting cultivation.

### Types of Human made Disasters (Contd...) Due to biological reaction

- a) Epidemic; and
- b) Pest attack.

### Types of Human made Disasters (Contd...) Faulty planning and implementation

- a) Dam burst;
- b) Flash floods;
- c) Urban flooding; and
- d) Drainage block.



## SLS – 6

### Handout

#### Hazard, Vulnerabilities and Disaster Hazard (danger)

An event which causes a situation which can be dangerous to people or property if occurred in the populated area

**Example: Cyclone, Earthquake, Flood, Drought, etc.**

#### Hazard, Vulnerabilities and Disaster (Contd...) Vulnerability (weakness)

Conditions in the community, which leave it open to suffer from the effects of a disaster.

**Example:**

- a) **Houses on the seacoast in the cyclone prone area.**
- b) **Village situated in the flood prone area.**

#### Hazard, Vulnerabilities and Disaster (Contd...) Disaster

A **sudden event** which causes significant disruption on socioeconomic life, property and creates widespread damages including sudden and immense miseries to humanity.

Disaster occurs due to destruction of environment, which is caused by extraordinary natural phenomena or human induced hazards, resulting in human sufferings and hardship beyond coping and recovery unless an external aid is introduced . To reduce the disaster probability, one has to decrease the vulnerability.

**Example: Earthquake, Cyclone, etc.**

## 4.2. Subject/Theme:

### **Economic and Social Impacts of Disasters**

#### **PART-I**

##### **Introduction and Overview**

Statistical report claims that, while in 1950s there were annual occurrences of less than 50 disasters worldwide; this number has increased to nearly 700 now. Out of these, weather related disasters account for almost 70 percent. The economic impact of these disasters has been crippling. While the losses in 1950s used to be 40 billion a year, this rose to 676 billion in the 1990s. It is estimated that by 2050 the annual loss would be around a staggering US \$300 billion.

About 90 percent of fatality occurs in developing countries, ill prepared to face the calamities. In south Asia the annual number of deaths from natural disasters was 51 thousands during 1987-1996. Whereas during 1992-2001 natural and manmade disasters have claimed 96,285 deaths in the sub continent. Damages caused by earthquake in Gujrat are estimated to be US \$5 billion with 19,727 deaths, 166,000 injured and 600,000 people rendered homeless. In the "super cyclone" that hit Odisha in 1999, it

caused more than 20,000 human deaths, 700,000 cattle deaths and 20 million people rendered homeless. The loss to the economy was close to US \$ 7 billion.

India spends almost 2 percent of its GDP annually on meeting the cost of relief and rehabilitation in the aftermath of disasters. Usually the monetary losses to the economy is categorised into three types:

- a) **Direct Costs** (Capital costs of assets);
- b) **Indirect Costs** (Damage to flow of goods and services); and
- c) **Secondary Effects** (short and long term impact on overall economic performance).

##### **Objectives**

To increase knowledge level of the participants on the impact of disasters on the economy, and how it affects the development process

##### **Methods**

Presentation-cum-discussion, brainstorming

##### **Materials/Learning Aids**

Flip chart, OHP/LCD, white board

##### **Duration**

One session (For details refer page no. 9).

**Expected Learning Outcome**

**Cognitive/Knowledge Related:**

- a) Better knowledge about the connection between disaster and development.

**Competency/Skill Related:**

- a) Increased ability to do advocacy on this issue.

**Sub themes/Key Learning Points/ Issues**

- a) Disaster-Development Linkages;
- b) Losses due to disaster and people affected by disasters;
- c) Expenditure on relief and rehabilitations;
- d) Impact of disaster on economy;
- e) Direct and indirect impact in terms of cost;
- f) Secondary effects;

- g) Is disaster prevention cost effective?;
- h) Disaster-environment connection; and
- i) Major disconnects in disaster responses.

**Supplementary Learning Support**

Handout and slides on impact of disaster on health, common medical problems, economic impacts, etc.

**Further Study/References**

'Disaster Communication' - A Duryog Nivaran Publication, 2002

**Note for the Facilitator**

This is a knowledge centric subject. The facilitator should engage the participants on the subject through a brain-storming method to drive home the point that through disaster prevention and preparedness each one of them can contribute to the development of the country.



## PART-II: Supplementary Learning Support Materials

### SLS - 7

Slide

#### Impact of Disaster on Health, Hygiene and Sanitation

**Pollution of water:**

Leading to epidemics, infections, and other kinds of health problems.

**Food deficiency and contamination:**

Leading to nutritional deficiency disorders, severe sickness and death.

**Disruption of sanitary systems:**

Infections, diseases, epidemics

**Breach of communication:**

Non-availability of essential commodities, especially food

**Overcrowding (at shelter places):**

Mental stress, trauma, infection, etc.

SLS - 8

Slide

### Common Medical Problems during Disaster

- a) Water-borne and food-borne diseases: Diarrhoea, dysentery, cholera, gastro-enteritis, food poisoning, hepatitis (jaundice) and typhoid fever.
- b) Acute respiratory infections, meningococcal meningitis, Japanese encephalitis
- c) Injuries requiring first-aid emergency
- d) Animal bites, snake bites
- e) Vector borne diseases : Malaria, dengue fever, typhus
- f) Psychiatric illness: Post-disaster psychosis
- g) Behavioural problems: Alcoholism, excessive aggressiveness, etc.



## SLS - 9

### Handout

#### Economic Impact of Disasters

The economic impact of a disaster can be categorised into three types.

- Direct costs
- Indirect costs
- Secondary effects

#### Economic Impact of Disasters (Contd...)

##### Direct costs

The capital cost of assets (such as buildings, other physical infrastructure, raw materials and the like) destroyed or damaged in a disaster. Crop losses are often included in such calculations.

#### Economic Impact of Disasters (Contd...)

##### Indirect costs

Damage to the flow of goods and services. They include, for example, lower output from factories that have been destroyed or damaged; loss of sales income due to damaged infrastructure such as roads and ports; and the costs associated with having to purchase more expensive materials or other inputs where normal-cheaper-sources of supply are affected. They also include the costs of medical expenses and lost productivity due to increased disease, injury and death.

#### Economic Impact of Disasters (Contd...)

##### Secondary effects

The short-term and long-term impacts of a disaster on overall economic performance. These may include deterioration in external trade and government budget balances, the reallocation of planned government spending and increased indebtedness. Disasters can also affect the pattern of income distribution or the scale and incidence of poverty.

*Source- Benson C, The cost of disasters' in Twigg J(ed) Development at Risk? Natural Disasters and The Third World. London: UK, National Co-ordination Committee for the IDNDR(1998)*

## SLS – 10

### Handout

#### Is Disaster Prevention Cost-effective?

Effective prevention strategies and a prevention culture are important in disaster management, because:

- a) Prevention saves not only huge amount of cash required in several disaster management operations but also innumerable lives, which otherwise would have been lost;
- b) It curbs the loss of natural resources like water resources during drought, agricultural land in flood/drought, etc.;
- c) Incorporation of disaster prevention in development plans provides added economic stability for further investment;
- d) It reduces the drudgery, especially of women, in the daily life like collecting water, fuel, fodder, etc.;

#### Is Disaster Prevention Cost-effective? (Contd...)

- e) Disaster prevention strategy safeguards the agricultural output to a great extent;
- f) By preventing the disaster a country protects the sources of livelihood of its people;
- g) Attracts National, local and foreign investments in development;
- h) Reduces the rate of migration both at micro and macro level;
- i) It not only protects the natural environment but also protects the local or indigenous culture of a community;
- j) It minimises the impact, reduces risk and vulnerability during disaster; and
- k) Provides stability to the National economy and saves resources for other humanitarian programmes.

### 4.3. Subject/Theme:

## **Familiarising with Disaster Vocabulary and Terminologies**

### **PART-I**

#### **Introduction and Overview**

Debates continue about definitions of various types of disasters. Scientific and disaster research institutions use names, terms, terminology, designations and sometimes jargons describing/defining disaster from various angles and perspectives. Since disaster covers a variety of subject areas, i.e., **ecology, environment, science and technology, climate and weather forecasting, construction, transport, distribution, health, education, industrialization** and almost all aspects of development; a **Disaster Manager** need to be familiarized with these terms in order to deal with a number of situations, agencies and issues cutting across various development sectors.

#### **Objectives**

Raise participants'/trainees' awareness of and familiarity with various disaster related terms

#### **Methods**

Quiz - to cross check trainees' familiarity with various disaster related terms/ vocabulary

#### **Material/Learning Aids**

Dictionary, LCD/CD, Slides and Handouts

#### **Duration**

One session (For details refer page no. 9).

#### **Expected Learning Outcome**

##### ***Cognitive/Knowledge related:***

- a) improved knowledge of disaster related terms

##### ***Competency/Skill related:***

- a) Ability to appropriately use these terms in the disaster management context

#### **Sub-themes/Key Learning Points/ Issues**

Discussion on various disaster related concepts and terms (See Annexure-II)

#### **Activity**

- a) Formulate the questions and their answers;
- b) Select at random 5 to 7 trainees to sit in two competitive teams for the quiz;
- c) Put the question on disaster vocabulary to each team one by one and ask them to answer within a minute;

- d) If answer is right give one point to the team;
  - e) If one team fails to answer, put the same question to the other team. Give two points if answers correctly;
  - f) If no team is able to answer, put the question to rest of the trainees; and
  - g) At the end of each question give correct answer with explanation.
- b) **Relief web**, <http://reliefweb.org>
  - c) **Reporting on the environment: A handbook for journalists**, Bangkok, 1998
  - d) **Disaster Communication: A Resource kit for media**, A Duryog Nirman Publication, 2002

**Note for the Facilitator**

- a) Understanding the objectives of this training session and guide the quiz towards attaining the objective;
- b) At the end of the Quiz session distribute to all trainees answers to the Quiz;
- c) Avoid questions and answers which are disputable; and
- d) Please note that Quiz.

**Supplementary Learning Support Materials**

List of disaster related terms

**Further Study/References**

- a) **Disaster relief Library**, <http://www.disasterrelief.org/library/dictionary>

**PART-II: Supplementary Learning Support Materials**

Read disaster related vocabularies and terminologies in the **Annexure-VII**.

# Section 4

# Section 5

## Challenges of Volunteer Management in Disasters

### Content

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5.2.	Engaging Civil Society Organisations	80
5.3.	Involving Organisations of Youth Volunteers (OYVs)	86
5.4.	Promoting Leadership, Motivation and Team Building Skills	91

### Supplementary Learning Support materials

#### Slides

- ★ Benefits of Effective Volunteer Management, *p76*
- ★ Eight Steps on Effective Volunteer Management, *p77*

- ★ Why Young People Volunteer?, *p90*
- ★ Leadership and Team Building in Community Based Volunteer Organisations, *p96*
- ★ Potential Positive Aspects of the Team, *p97*
- ★ Potential Negative Aspects of the Team, *p98*
- ★ Strategies for Composing Effective Volunteer Teams, *p99*
- ★ Steps to Maintain Team Morale and Motivation, *p100*

**Handouts**

- ★ Measures to Enhance Motivation of Volunteers, *p78*
- ★ Responsibilities of Volunteers in Disaster, *p84*
- ★ Role and functions of Volunteers, *p88*

**Case Study**

- ★ Braveheart of Bihar!, *p84*

## 5.1. Subject/Theme:

### Volunteers Management in Disaster

#### PART-I: Subject/Theme

##### Introduction and Overview

Disaster volunteering refers to all volunteer and voluntary activities performed during any phase of the emergency management cycle. Past experience shows that in management of unaffiliated volunteers there is a potential to create disasters within the disaster. Therefore each district in the country must have an agreed agenda for volunteers' mobilization and management to meet local as well as National emergencies. Yet the paradox is how to match people's willingness to volunteer and the system's willingness as well as capacity to use them effectively. Very often issue of volunteer management comes as an afterthought without any structured approach.

The inadequacy becomes more evident when thousands of volunteers want to be truly engaged with a desire to mitigate

suffering of the people in a tragedy. They often arrive unsolicited at the scene of a disaster, and in many cases without the needed skills and without being part of the emergency management response system.

Therefore within emergency management, **volunteer coordination** is an **essential management function**, and should be fully integrated into all disaster planning processes. It provides as well as creates an opportunity and window to mobilize and channelise the immense volunteer energy, particularly during the response and recovery phases. The response activities are huge and can be entrusted to volunteers for quick results like sorting donated goods, cleaning and removal of debris, sandbagging during flood, mobilize resources for need-based help, etc.

#### Objectives

- a) To define role and responsibilities of volunteers and their management;
- b) To realize and recognize volunteer management as an essential function of disaster preparedness;

- c) To focus benefits of effective volunteer management;
- d) To leverage the full range of community resources, energy and knowledge base for disaster management; and
- e) To facilitate increased citizen involvement in reducing impact of disaster.

### **Methods**

Lecture-cum-discussion, experience sharing, case study, group work, etc.

### **Materials/Learning Aids**

Flip charts, OHP / slide projector, video clips

### **Duration**

Two sessions (For details refer page no. 9).

### **Expected Learning Outcome**

#### ***Cognitive/knowledge related:***

- a) Participants will be able to understand the role and responsibilities of volunteers and their management in a disaster situation.

#### ***Competency/Skill related:***

- a) Enhanced skills in facilitating increased citizen involvement in reducing impact of disaster;
- b) Capacity to identify right type of volunteers to be enrolled;

- c) Skills of volunteer selection, enrolment and retention; and
- d) Skills of managing volunteers for optimum utilization of their potential.

### **Sub-themes/Key Learning Points/ Issues**

- a) Disaster volunteering - challenges and opportunities;
- b) Importance of effective use of volunteers;
- c) Developing strategies and approaches for effective volunteer management;
- d) Maintaining the motivational level;
- e) Facilitating greater collaboration among stakeholders;
- f) Leverage existing volunteer networks;
- g) Designing plans for educating and training people for being effective disaster volunteers;
- h) Models of successful volunteer management;
- i) Develop and conduct disaster volunteer management exercise and drills;
- j) Leveraging expertise of local volunteer management professionals in planning and executing volunteer coordination;

- k) Providing volunteer planning guidance to community;
- l) Database on volunteer resource information;
- m) Promoting volunteering opportunities; and
- n) Synergy and convergence of voluntary efforts.

### Supplementary Learning Support Material

Handouts and slides on benefits of effective volunteer management, Eight Steps, measures to enhance motivation

### Further Study/References

- a) ***UN International Year of Volunteers Declaration, 2005***
- b) **[www.energizeinc.com/art.html](http://www.energizeinc.com/art.html)**
- c) **[www.serviceleader.org/manage](http://www.serviceleader.org/manage)**
- d) **[www.worldvolunteerweb.org](http://www.worldvolunteerweb.org)**

### Note for the Facilitator

- a) The session should be more participatory to know the strengths of, and challenges of volunteers management;
- b) Trainees should get clear understanding on the importance of effective volunteers' management in disaster situation;
- c) Practical sessions / role-play / mock exercises need to be conducted to ensure the understanding of volunteer management;
- d) Circulate the guidance / guiding principles for effective volunteer management;
- e) Give tips to identify and relocate the available local resources and opportunities for volunteer management; and
- f) Give them a broad concept of the Incident Response System and where do the voluntary fit into the management system.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

Slide

#### Benefits of Effective Volunteer Management

- a) Empowers the first responders/volunteers to carry on their duties without added responsibility of managing them.
- b) Ensures meaningful and quality volunteer experience, motivates people for community service experience in future.
- c) Can be engaged in additional areas of need in disaster cycle.
- d) Communities would know to engage citizens effectively in all phase of disaster.
- e) Well managed volunteer energy and efforts expedite disaster healing process.
- f) Promotes a culture of peoples' participation.

SLS - 2

Slide

## Eight steps of Effective Volunteer Management

- Step 1: **Plan the volunteer position**
- Step 2: **Ask people to volunteer**
- Step 3: **Interview and place volunteers**
- Step 4: **Orienting and training volunteers**
- Step 5: **Supervising and communicating**
- Step 6: **Recording and reporting**
- Step 7: **Evaluating**
- Step 8: **Recognizing and retaining volunteer**



## SLS - 3

### Handout

#### Measures to Enhance Motivation of Volunteers

Volunteers are one of the important resources for many organisations, especially those working in disaster situation. The success/effectiveness of any voluntary based organisations depends mainly on enrolment and retaining of sufficient number of rightly motivated volunteers.

#### Motivation of Volunteers

Voluntary motivation comes from within a person/volunteer when the work assigned and done by him are productive in nature and provides certain level of satisfaction. Some of the motivating factors for the volunteers are;

- achievement
- power
- affiliation
- recognition
- altruism

#### Motivation of Volunteers (Contd...)

##### Achievement

The achievement oriented persons/volunteers seek for situations requiring high performance in which s(he) can prove her/his expertise and excel over others irrespective of any obstacles. Motivational needs of such persons can be fulfilled by asking for their help in critical situations, giving them challenging tasks that require efficiency, allowing them to learn new skills and materials, giving them clear feedback on their performance.

## Motivation of Volunteers (Contd...)

### Power

Power seeking or power oriented persons or volunteers want to have impact/influence over others with their ideas. They always want to win over the situation and make others do things according to their ways. They seek ways to influence through communication. The power motivated volunteers can be well directed by giving them to direct others, allowing them to implement changes giving them chance to interact with co-workers/supervisors letting them control their work pace, asking them how jobs could be done, giving them tasks that need managerial skills.

## Motivation of Volunteers (Contd...)

### Affiliation

A person/volunteer with affiliation motives gives importance to establish friendship and relationship with others and cares about others' feelings. Social aspect of volunteering appeals more to him. Such volunteers can be well directed by letting them work with and be with people, giving them off-task time to interact with their co-workers, assigning them tasks that require co-operation.

## Motivation of Volunteers (Contd...)

### Recognition

Persons or volunteers who are motivated by recognition are more interested in prestige status and popularity. Such volunteers prefer clear-cut short-term tasks, so that after timely completion of one work they can advance to new tasks. Such volunteers can be well directed through tasks that are completed quickly, letting them in positions of high visibility on radio, TV or any other mass media, awarding them with plaques, certificates and public announcements of their achievements and inviting them or getting them invited to official functions.

## Motivation of Volunteers (Contd...)

### Altruism

Altruistic persons or volunteers have high ideals or values. They care about accountability and pursue attainment for general goal. Such volunteers can be well directed by including them with others of similar values and goals, letting them work with highly committed people, providing them volunteer opportunities that revolve around accepted community concern and the mission of the agency.

*Source: National Approach Paper on Revamping of Civil Defence Organization, K.M. Singh, Member NDMA*

## 5.2. Subject/Theme:

### Engaging Civil Society Organisations

#### PART-I

#### Introduction and Overview

The contribution of civil society organisations in **Disaster Response** is a well-recognized fact. Civil society is the arena outside the government and the market where people associate for common cause. It includes a diversity of **individuals, activists, community based organisations, self help groups, charities, issue based groups**, etc. Many of them work at grassroots level. The country has a million strong civil society organisations engaged in philanthropic, welfare and advocacy activities. Participation of such skilled non-State actors in helping people in distress is critical for the success of any intervention

aimed at reducing suffering of the people.

In India National Disaster Management Authority and other government agencies play the lead role. Yet, some of their responsibilities could be delegated to civil society groups particularly for interacting with survivors providing trauma service, counselling and facilitating relief.

CSOs have a reputation of dealing with the situation swiftly and efficiently in any emergency. In most disasters and small scale emergencies response time is crucial. Further, when donations in kind start pouring in, the CSOs can be of big

help in facilitating proper distribution and preventing wastage and pilferage. For instance, in the aftermath of Bhuj quake in Gujarat and Odisha super cyclone, when donations in kind, i.e. medicines, clothes, polythene sheets, blankets, toys, books, household goods started coming competent handling was a problem and resulted in some wastage and pilferage. There is also a need to have proper coordination between the different participating CSOs. The concept of IRS should be clarified to them and they should be made aware as to how and where do they fit in the response mechanism.

Creation of public awareness is another important component where the CSOs can play a key role. What do people do when they face an earthquake, a cyclone, a flood, a terrorist attack or bomb blast, whether at home, in office or in deep sea engaged in fishing? Most people in fact panic and end up doing things what exactly they shouldn't do, exposing themselves to great risk. Therefore, **to stay prepared**, all the players of civil society including schools, clubs, colleges, NGOs, religious and secular organisations, charities, trade unions, cremation/burial societies, etc. **should participate regularly in disaster related safety drills.**

### Objectives

To encourage volunteers of civil society organisations to engage themselves

tackling any emergency situation with courage and collective effort as per NDMA IRS Guidelines.

### Methods

A panel discussion or workshop on power of networking, alliance building and convergence directed at developing in-depth knowledge, skills, attitude and perspectives on benefits of working together.

### Materials/Learning Aids

Pictures, video clips, white board, marker, handouts, OHP/LCD

### Duration

Two Sessions (For details refer page no. 9).

### Expected Learning Outcome

#### ***Cognitive/knowledge related:***

- a) Understanding civil society functions, organisations, roles, expertise and experience and resource base in relation to disaster.

#### ***Competency/skill related:***

- a) Ability to network with civil society organisations for public awareness, training, rescue, relief, rehabilitation and community capacity building operations.

### Sub-themes/Key Learning points/ Issues

- a) Understanding work dynamics of civil society;
- b) The civil society- interface, synergy and conflicts;
- c) Role of non-state Government agencies in disaster management;
- d) Their knowledge, experience base and contribution in disaster mitigation;
- e) Public-private partnership framework;
- f) Filling critical gaps in government response, in relief and rescue;
- g) Institutional autonomy, responsiveness, non-politicized decision making;
- h) Expertise, availability, visibility, proactive, in-situ-response;
- i) Spectrum of activities they get engaged in i.e. rescue retrieval, disposal setting up relief camps distribution of relief materials, Medicare, shelter, psychosocial interventions, mobilizing essentials
- j) Coordination mechanisms/forums;
- k) Sharing knowledge, perspectives, information, skills, etc.;
- l) Providing feedback, facilitating better communication and maximizing potential;

- m) Using civil society in advocacy, influencing public policy and practice in relief, rehabilitation and reconstruction processes; and
- n) Organizing disaster related safety drills.

### Supplementary Learning Support Materials

- a) Handout on various categories of civil society organisations; and
- b) Case Study

### Further Study/References

- a) Contribution of civil society organisations in Disaster, **Basic social services for all**: UN, 1997
- b) The State and civil society in Disaster response: **Post Tsunami in Tamilnadu, "Disaster and Development"**- vol-1, No-1 pp-77-100

### Note for the Facilitator

*This is a thematic session*

- a) Ensure that the participants get proper understanding of the roles and responsibility and relevance of civil society in disaster context;
- b) The panel discussion should be organised with adequate preparation;
- c) Select the panel members with care

- keeping in view their expertise and experience;
- d) The number of panel members should not exceed three in view of the limited time; and
  - e) Circulate the learning objectives of the session to the panel members

well in advance and advise them to limit their presentation to 10 minutes at the maximum to be followed by discussion.

*Participants should be given chance to ventilate/share the learning from any experienced disaster crisis in their community.*

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Responsibilities Volunteers in Disaster

#### **Pre-disaster and mitigation**

- a) Public awareness; and
- b) Capacity building of
  - i) Communities;
  - ii) Government departments;
  - iii) Municipalities; and
  - iv) Other organisation of volunteers / auxiliary emergency responder organisations like, NCC, NYKS, NSS, Red Cross, etc.

#### **Post disaster response and relief**

- a) Emergency rescue relief, and rehabilitation

### SLS - 2

#### Case Study

#### **Braveheart of Bihar!**

During the times of distress we come across some real deeds of heroism which lets us salute the human spirit and feel us proud of the human race. One such example is **Jhulan Rai**, the 36-year-old headman of Abhayram village, Purnea, Bihar.

During the tragic floods of Kosi river, he single handedly and initially without any assistance from the Government, ran the largest refugee camp ever run in India - accommodating **21,830** villagers, roughly 11,000 children among them!

“At the crack of dawn, Jhulan Rai wakes up and sits on his cot outside his mud hut. The 36-year-old headman of Abhayram village sleeps under the open sky so people can wake him up easily if they need help.

Very soon, he heads straight to a mango orchard where he has set up a relief camp for nearly 22,000 villagers who began arriving in trickles from nearby areas on August 22, when the Kosi river rose to submerge an area almost the size of Belgium. His first task is to ensure that the roughly 11,000 children in the camp get breakfast. “I doubt I will ever face a bigger challenge,” said Rai, a former jeep driver who was elected to the village council last year. He expects to continue working in public life.

There were no government officials to be seen. The apathy of the administration has given Rai an opportunity to prove his mettle. As the refugees began pouring in, Abhayram’s 18,000 residents generously pulled out their own grain stocks to share with the newcomers. For ten days, they did this. Only then did stocks from the government begin trickling in, Jhulan said. Even now, a month later, the government’s stocks aren’t enough for all the refugees.

The indefatigable Jhulan remains unruffled. “It is a gargantuan task,” said the burly, bearded man. “But we cannot ask these people to leave, surely. Where will they go?”

Only half the refugees have received tents from the government. Yet, in Purnea town, about 60 kilometres from Abhayram, at a huge camp the administration has set up, tents are going for the asking.

After the flood, a stream of people headed eastward for the nearest dry spot – Abhayram. “It began with 2,000 people, then 5,000, then 10,000, 12,000, 17,000,” said villager Bhim, standing in the village’s biggest mango orchard. “People are still coming in.”

As Rai walked through rows of tents that morning, residents milled around him enthusiastically.

Jaikishan Yadav, whose ten-member family is at Abhayram, says “We are surviving because of the headman. At Here we feel warmth.”

Chitragada Choudhury, Email Author, Hindustan Times, September 18, 2008



*Jhulan Rai*

### 5.3. Subject/Theme:

#### **Involving Organisations of Youth Volunteers (OYVs)**

##### **PART-I**

#### **Introduction and Overview**

India has a large network of youth volunteers including 21 million student and non-students. The Indian Red Cross Society (IRCS) itself has more than six million volunteers belonging to junior and Youth Red Cross. The National Service Scheme (NSS) has close to three million student volunteers spread over 30 thousand colleges and schools. Bharat Scouts and Guides and National Cadet Corps (NCC) have about five million student volunteers. Neheru Yuva Kendra Sangathan (NYKS) has eight million non-student youth volunteers working through two lakh youth clubs in villages. This is a huge human resource that, with some basic training, could be mobilized during disasters. In fact the organisations like Youth Red Cross, NSS, NYKS and NCC have done great work during many disasters and emergencies in the past. There is a convergence of objectives between Civil Defence and OYVs. This would require meaningful networking for the common cause.

#### **Objectives**

- a) To provide brief idea about roles and responsibilities of **OYVs**;
- b) Understanding the potential of organisation of youth and student volunteers in disaster management activities; and
- c) How to use of their services in pre, during and post disaster situations.

#### **Methods**

Presentation cum discussion, panel, seminar

#### **Materials/Learning Aids**

Organisational charts, slides, OHP/LCD

#### **Duration**

One session (For details refer page no. 9).

#### **Expected Learning Outcome**

##### ***Cognitive/Knowledge related:***

- a) Learn about the basic philosophy behind the programmes and activities, structure and function of OYVs.

##### ***Competency/ Skill related:***

- a) Ability to build rapport with the OYVs, identify areas of convergence, establish mechanism of mutual cooperation and find out common work areas for disaster response - strengthening communication,

contact and networking arrangements.

g) Networking with the youth volunteers organisations and their training facilities.

### **Sub-themes/Key Learning Points/ Issues**

- a) Understanding and working with IRCS, its mission, objectives, operational structure, its volunteers profile, strengths and weaknesses, work areas, programme and activities; its role in disaster preparedness and response and how to work jointly with it;
- b) Understanding and working with National Cadet Corps (NCC), its potential to work as volunteers during disaster;
- c) Understanding and working with National Service Scheme(NSS), its programmes and activities;
- d) Understanding and working with Bharat Scouts and Guides and how to link it to disaster mitigation efforts;
- e) Understanding and working with Neheru Yuva Kendra Sangathan (NYKS) and its network of 200,000 plus youth clubs in promoting disaster preparedness and mitigation;
- f) Understanding and working with Nodal Ministries that support Organisations of Student and youth volunteers (OYSVs); and

### **Supplementary Learning Support Materials**

Handouts on

- a) The profile and potential of the OYVs;
- b) Guidelines for engaging the OYVs;
- c) Role and functions of volunteers in disaster; and
- d) Slide on why young people volunteer.

### **Further study/Reference**

Website of the organisations, their nodal ministries, manuals and operational guidelines of these organisations

### **Note to Trainer/Facilitator**

- a) The main focus of the session is how to network effectively with the OYVs and their nodal ministries; and
- b) These organisations have presence throughout the country. The senior professionals, administrations and policy makers/programme advisers of these organisations will be more suitable to work as resource persons for the session.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Role and functions of Volunteers Volunteering is an activity that is

- i) **Motivated** by the free will of the person volunteering, and not by a desire for material or financial gain or by external social, economic or political pressure;
- ii) **Intended** to benefit vulnerable people or their communities; and
- iii) **Organized** by recognized representatives of the organisation.

### Role and functions of Volunteers (Contd...) Volunteer roles and category

- i) Management volunteers;
- ii) Team leader-volunteer;
- iii) Service delivery volunteers;
- iv) Resource mobilizing volunteers;
- v) Expert or advisory volunteers;
- vi) Disaster relief volunteers; and
- vii) First Aid and health volunteers.

### Role and functions of Volunteers (Contd...) Characteristics of Volunteers

- i) Volunteers join willingly;
- ii) Volunteers are not paid any salary;
- iii) All volunteers are equals;
- iv) Volunteers have the right aptitude;

## Role and functions of Volunteers (Contd...)

### Characteristics of Volunteers

- v) Volunteers have the “luxury of focus”;
- vi) Volunteers strive and work for the highest standards of quality;
- vii) Volunteers are available in an emergency;
- viii) Volunteers respond to the needs of beneficiaries and strengthen their capacity for self-help and active volunteering;
- ix) Volunteers can be local people;
- x) Volunteers are insiders in the community;
- xi) Volunteers may work part-time / full-time;
- xii) Volunteers bring diversity and special abilities; and
- xiii) Volunteers are cost-effective.

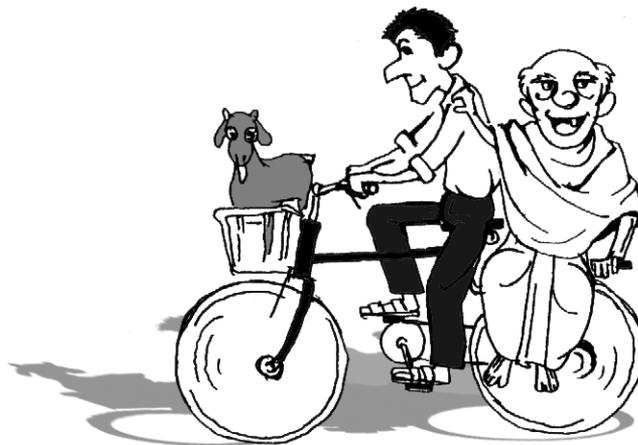


**SLS - 2**

*Slide*

### Why Young People Volunteer?

- a) They want to learn by working with the people
- b) They care about the community
- c) They are concerned about the social issue
- d) They believe in the organisation as a medium to work for others
- e) They want to develop personal relationships and connections
- f) They are keen to improve their skills and expertise
- g) They want to make a difference
- h) They seek an opportunity for recognition
- i) They were asked
- j) Altruism, inspired by a strong desire to help others
- k) Social motivation and inner inspiration
- l) Social responsibility, desire to pay back
- m) Desire to live and work for mutual benefit, mutual support
- n) They have stronger social quotient
- o) They believe in social ties and relationships



## 5.4. Subject/Theme:

### Promoting Leadership, Motivation and Team Building Skills

#### PART-I

##### Introduction and Overview

Volunteers play an important role in educating people about risks and hazards, in protecting people and property from loss and damage, in communicating forecasts and warnings, in distributing relief, in working for rehabilitation. All these require leadership and team building skills as no disaster can be dealt single-handedly. Therefore volunteers need to be trained in leadership skills, social skills, decision-making skills and broadly in personality development, communication and situation management.

This enables them in understanding, analyzing, various problems and challenges associated with risk, hazard and disasters. They should also understand various **leadership concepts and styles, art of working in a group, building and leading a team, coping with new problems/situations in the community & neighbourhood and managing conflicts.**

They must be enabled to **recognise their strengths and weaknesses,**

**to plan and define the priorities, get organized, mobilise people and resources, work well with others, be good team players, be assertive, listen attentively, manage relationships and develop positive self image.**

##### Objectives

To acquire an understanding of the self and leadership challenges and skills in working with the people in the community.

##### Methods

Lecture, discussion, Individual work, group work, activity, games and exercises

##### Materials/Learning Aids

Flip Charts, OHP, LCD, Marker, White Board

##### Duration

Two sessions (For details refer page no. 9).

##### Expected learning outcome

###### ***Cognitive/knowledge related:***

- a) Distinguish between different types of leadership, list factors that play a role in leadership development;
- b) Understanding of self with a view to improving one's personality; and
- c) Understand leadership challenges in difficult situations and disaster scenarios.

**Competency/Skill related:**

- a) Analyze how studies on leadership enable to understand others better;
- b) Appreciate importance of groups and teams;
- c) Ability to build teams, motivate and mobilize people;
- d) Orient oneself on various leadership skills;
- e) Improved capacity to deal with difficult situations and managing people; and
- f) Impart Leadership & Team building skills to others.
- c) Skills- technical skills, management skills, team member skills, project skills, field work skills etc.;
- d) Leadership challenges in disaster;
- e) Need for team building in volunteer organisation;
- f) Strategies for composing effective volunteer teams;
- g) Knowing yourself, determining your values, understanding your situation;
- h) Planning to meet an emergency;
- i) Motivation, mobilization, organisation;

**Sub-themes/Key Learning Points/ Issues**

- a) What is leadership;
- b) Types, styles and characteristics;
- j) Working with the community;
- k) Building network; and
- l) Defining priorities, taking decisions.

**Exercise/Activities**

**Activity I**

***Developing a healthy personality***

Participants are divided into groups of five, given three types of data sheets (feed back sheet, self knowledge sheet, Johari window sketch for self analysis) followed by discussion in plenary.

*A **Johari window** is a cognitive psychological tool. It uses primarily in self-help groups and corporate as a self-learning exercise.*

*When performing the exercise, one participant of the group is given a list of 55 adjectives and is asked to pick five or six that s(he) feels describe his/her own personality. The others of the group are then given the same list, and each pick five or six adjectives that describe the particular member. These adjectives are then mapped onto a grid.*

## Quadrants

Adjectives are selected by both the participant and his/her group members and are placed into the **Arena quadrant**. This quadrant represents traits of the participant of which both they and their peers are aware.

Adjectives selected only by the participant, but not by any of their peers, are placed into the **Façade quadrant**, representing information about the participant of which their peers are unaware. It is then up to the participant whether or not to disclose this information.

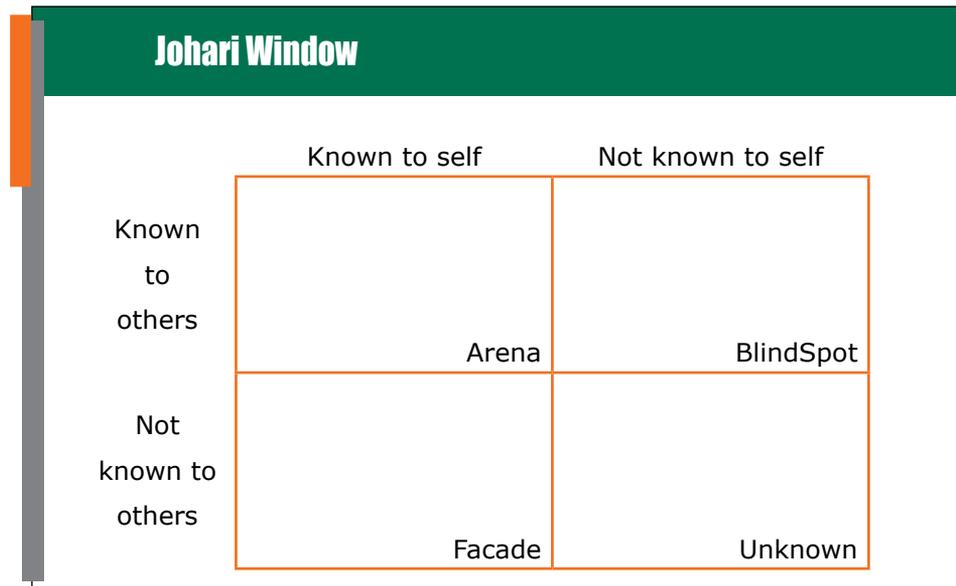
Adjectives that are not selected by the participant but only by their peers are placed into the **Blind Spot quadrant**. These represent information of which the participant is not aware, but others are, and they can decide whether and how to inform the individual about these "blind spots".

Adjectives which were not selected by either the participant or their peers remain in the **Unknown quadrant**, representing the participant's behaviors or motives which were not recognized by anyone participating. This may be because they do not apply, or because there is collective ignorance of the existence of said trait.

## Johari adjectives

A Johari Window consists of 55 adjectives used to describe the participant, in alphabetical order:

- |              |                 |              |                  |
|--------------|-----------------|--------------|------------------|
| ★ able       | ★ extroverted   | ★ mature     | ★ self-assertive |
| ★ accepting  | ★ friendly      | ★ modest     | ★ self-conscious |
| ★ adaptable  | ★ giving        | ★ nervous    | ★ sensible       |
| ★ bold       | ★ happy         | ★ observant  | ★ sentimental    |
| ★ brave      | ★ helpful       | ★ organized  | ★ shy            |
| ★ calm       | ★ idealistic    | ★ patient    | ★ silly          |
| ★ caring     | ★ independent   | ★ powerful   | ★ spontaneous    |
| ★ cheerful   | ★ ingenious     | ★ proud      | ★ sympathetic    |
| ★ clever     | ★ intelligent   | ★ quiet      | ★ tense          |
| ★ complex    | ★ introverted   | ★ reflective | ★ trustworthy    |
| ★ confident  | ★ kind          | ★ relaxed    | ★ warm           |
| ★ dependable | ★ knowledgeable | ★ religious  | ★ wise           |
| ★ dignified  | ★ logical       | ★ responsive | ★ witty          |
| ★ energetic  | ★ loving        | ★ searching  |                  |



**Activity II**

**Individual work**

Participants develop a leadership score sheet, fill in leadership score sheet / value score sheet and discuss.

**Activity III**

**Who Am I?**

Each participant to write down at least ten traits about oneself – kept hidden – display pinning to their chest (i.e. I am jealous, shy, indecisive etc.)

(Source – “Be Your Best” by Steve Smith)

**Activity IV**

**Group work**

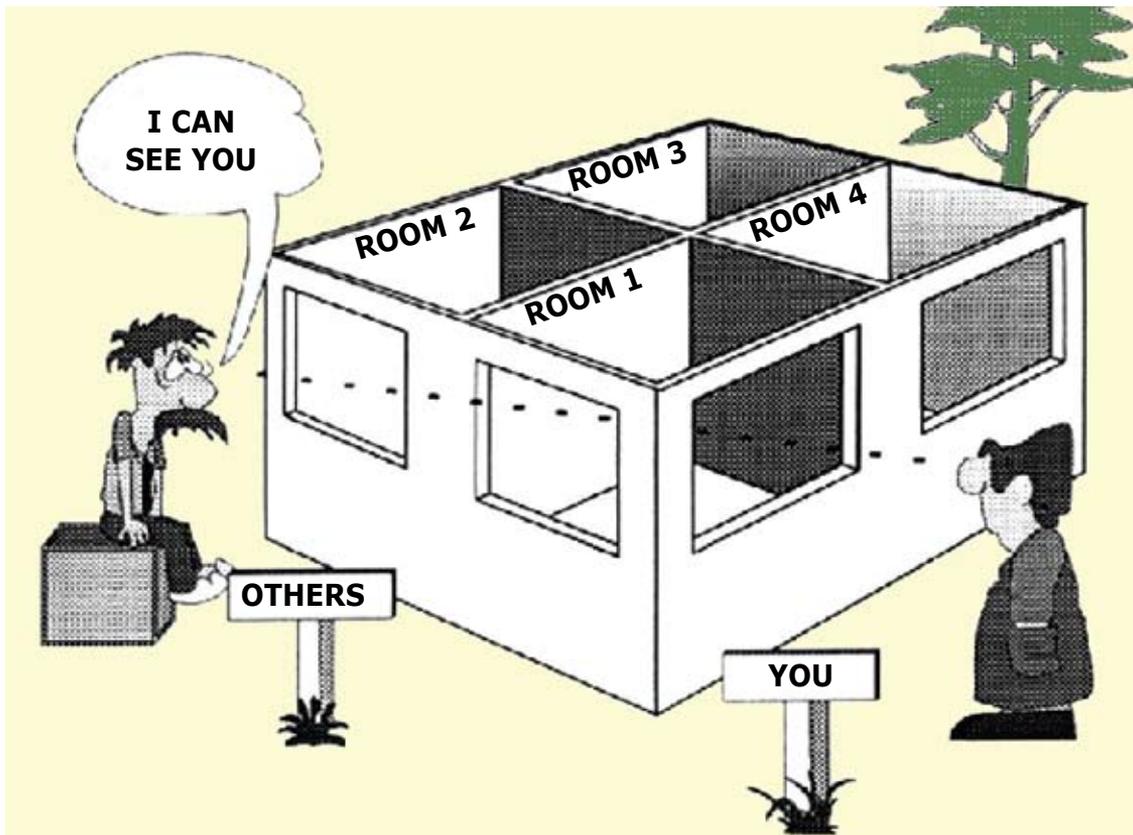
(Recommended with facilitator)

- a) Various leadership roles in the disaster context are discussed;
- b) Each group decides preferred roles;
- c) Group presentations in plenary; and
- d) Followed by discussion.

**Note to Facilitator**

- a) This is a skill based module and hence the focus should be on practice;

- b) Participants are encouraged to understand and examine their own behaviour, i.e., whether one is aggressive, passive or assertive, etc.;
- c) The exercise on Johari Window has to proceed step by step. Distribute copies to Johari Window sketch among the participants;
- d) Similarly the Activity on " Who am I " is to be guided and participants to be encouraged to examine their own traits; and
- e) Contextualize all the exercises.



## PART-II: Supplementary Learning Support Materials

### SLS - 1

Slide

#### Leadership and Team Building in Community Based Volunteer Organisations:

- a) The Voluntary Sector has seen a healthy emphasis on the importance of good professional and volunteers' relationship and/or relationship between boards and staff.
- b) A "Team" may be defined as a group of persons connected by agreed – upon objectives and tasks.
- c) Team building is a deliberate, artful action that results in a special combination of **persons working with related goals, timeframes, deadlines** and **specific tasks**. This activity can have both positive and negative aspects.
- d) The total group may carry out the team's function by a subgroup, or by individuals having the support and resources of group available to them.

## SLS - 2

### Slide

#### Potential Positive Aspects of the Team

- a) A Variety of resources become available
- b) Participants become willing to undergo training and grow together
- c) Persons from different parts of an organisation can work together on a project
- d) Persons from both within and outside an organisation can participate
- e) Persons become exposed to opportunities to be leaders and followers
- f) Persons may have the chance to meet personal needs for interaction and support
- g) Team members can belong to something bigger than themselves. Volunteers and paid personnel can work together for a common cause
- h) Persons get the opportunity to work on a project with a dead-line, finish the project, get rewarded for their efforts, and celebrate
- i) Persons can experience the special Solidarity associated with belonging to a successful, productive team
- j) Top management lends its support

**SLS – 3**

*Slide*

### Potential Negative Aspects of the Team

- a) Team members' commitments may be incompatible
- b) Team members may have hidden agenda that interfere with the Process
- c) The process may suffer from poor work or a lack of follow-through
- d) Someone may be unable to work as a group member
- e) The team may lack clear direction or a sense of purpose
- f) The leaders may have a laissez-faire attitude
- g) Staff - volunteer practices, roles, and/or relationships may not be satisfactory
- h) One may lose one's perspective on the job's importance
- i) Organisational inexperience may hinder the process
- j) The organisation may not support the team as it should
- k) Meeting may suffer from inconsistent attendance
- l) Delegations may suffer from poor performance
- m) Unappreciated and unsupported teams often disintegrate



SLS - 4

Slide

## Strategies for Composing Effective Volunteer Teams

In structuring and developing a voluntary system group that one hopes will become a team, one should seek to meet the following criteria:

- a) Clear, "achievable" goals or desired outcomes
- b) Making criteria that those to be affected by the team's work are represented on the team
- c) Restricting the number of team members between 3 to 13 individuals, because if the number is too large or too small cohesiveness is difficult
- d) Recognizing the beauty of difference, because a team generally produces a better program, product, idea, or service than any member could produce alone
- e) Balancing tasks and relations
- f) Aligning different mindsets towards the team goal
- g) Developing **strategic – creative** mindsets as against **operational – reactive** mindset
- h) Making the team **result oriented** – learning to support one another for this
- i) Moving away from **"turf Dom"** to **collaboration**
- j) Sharing various experiences to enrich the team's resources
- k) Developing orientation and training activities for team empowerment
- l) Giving thoughtful consideration to enrolling and placing team members
- m) Providing recognition, appreciation, visibility and reward procedures to sustain team morale

## SLS - 5

### Slide

#### Steps to Maintain Team Morale and Motivation

- a) Scheduling progress reports and celebrations
- b) Exchanging ongoing feedback
- c) Supporting the team as an integral part of the total organisation, as well-functioning, cohesive teams sometimes become entities exclusive of others
- d) Creating conducive environment and promoting healthy and innovative approaches for working together.
- e) Carefully documenting the process and product(s) of the team's work
- f) Considering shared, functional, temporary, or other leadership patterns making leadership opportunities available to more than one team member
- g) Providing ongoing support structures and staff services
- h) Making sure lines of communication to and from the team are clear
- i) Offering ongoing team training as the organisation changes
- j) Agreeing on regular meeting times and suitable meeting places
- k) Acknowledging and recognizing team members as appropriate

# Section 6

## Gender, Vulnerable Groups, Psychosocial Support

### **Content**

6.1.	Gender Issues in Disaster: Addressing Vulnerabilities	103
6.2.	Emergency Healthcare: Needs of Vulnerable Groups	108
6.3.	Psycho-social Support in Disaster	112

### **Supplementary Learning Support materials**

#### ***Handouts***

- ★ Women in Disasters, *p106*
- ★ Impact of Disaster on Health, Hygiene and Sanitation, *p110*
- ★ A Prevention Guide to Personal Health and Safety, *p111*

- ★ Understanding Disaster related Trauma, *p115*
- ★ Psycho-social Support - Listening Skills: Do's and Don'ts, *p116*

**Slide**

- ★ Incorporating Gender Issues into Disaster Management, *p107*

## 6.1. Subject/Theme:

### Gender Issues in Disaster: Addressing Vulnerabilities

#### PART-I

#### Introduction and Overview

Dominant perceptions of disaster often overlook varying socio-economic and cultural contexts. Similarly **'victims'** of disasters are also considered as a homogenous group, again overlooking their different abilities and vulnerabilities. **Gender** is one such area. Understanding gender relations in disasters is important for many reasons. Because, the degree of **vulnerability** to disaster depends on a variety of socio-economic and cultural factors; no development response including disaster planning can be complete without an analysis and understanding of gender aspects. There is an **evident lack of awareness on this issue** among both **practitioner** and **policy making** level of disaster mitigation and management.

The different natures and need of women and men facing disasters are now being

recognized increasingly. In fact, most of the gender related differences in disaster situations arise because of different roles and responsibilities of women and men. In the south Asian/Indian subcontinent, prone to frequent disasters, women shoulder the entire responsibility maintaining the household - irrespective of loss and trauma caused by a disaster. Women are responsible for providing food and water for family survival and taking care of the sick and old. Women and men also deal with distinct disaster preparedness activities. Contrary to public perception, women are not powerless & vulnerable and helpless victims of disaster, but they display **great courage, skills, resilience, knowledge** and **coping competencies** in extremely difficult and challenging situations in a calamity. In this context they are an asset as well as resource to be utilized with benefits to all.

#### Objectives

Understanding gender aspects of risks and vulnerability in disaster and developing appropriate responses.

### Methods

Brainstorming/Focus Group Discussion,  
Role Play

### Materials/Learning Aids

LCD, Audio Video, White Board, Flip Chart

### Duration

Two hours (For details refer page no. 9).

### Expected Learning Outcome

#### **Cognitive/knowledge related:**

- a) Overcoming lack of awareness of gender related difference in disaster

#### **Competency/skill related:**

- a) Making use of women's managerial, technical and social skills in planning and providing food, medicines, relief and mitigation work.

### Sub-themes/Key Learning points/ Issues

- a) Importance of gender in development programmes;
- b) Why gender issues are important in disaster;
- c) Gender analysis in disaster planning;
- d) Different natures, needs and concerns of women facing disaster situation;

- e) Women's contribution in preparing for emergencies, saving links, rebuilding livelihoods;
- f) Women's role in post emergency situation; and
- g) Linking households and families to disaster response.

### Supplementary Learning Support Material

- a) Video on South Asian Women: Facing Disaster; and
- b) Handout: Gender in Disaster, Force Field Analysis

### Further Study/References

- a) **Defeating Disasters: Ideas for Action**, ITDG, South Asia/Duryog Nivaran. Colombo 1999
- b) **South Asian Women: Facing Disasters, Securing life**, ITDG/ Duryog Nivaran, Colombo, 1997
- c) **Gender, vulnerability and Disaster: Key Concerns for Policy and Practice**, Paper by Sara Ahmed, Disaster and Development, Vol-1, Nov'2006(NIDM)
- d) **From Women's Needs to Women's Rights in Disaster**, Enarson E and M. Fordham, Environment Hazards, Greenwood Publications, 2001

- e) *Ibid, The Gender Terrain of Disaster: Through Women's Eyes, Westpost, Greenwood Publications*

**Note for the Trainer/Facilitator**

- a) This is a thematic as well sensitive session which focuses on the attitude of the participants;
- b) The session should be conducted by a gender sensitive resource person / expert having enough of real life experience;

- c) Ensure to make the participants gender friendly and analyse the disaster situation with a gender lens;
- d) The cultural practices need to be considered and discussed with regard to different situations;
- e) Conduct group work to make them better understand the gender related differential impact of disaster; and
- f) Enable to change their attitude and mindset to focus on the special need of the women and children in disaster situation.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### *Handout*

### **Women in Disasters**

Women and children are particularly affected by disasters, accounting for more than seventy-five percent of displaced persons. In addition to the general effects of natural disaster and lack of healthcare, women are vulnerable to reproductive and sexual health problems, sexual and domestic violence. Moreover, gender rules dictate that women become the primary caretakers for those affected by disasters – including children, the injured and sick, and the elderly – substantially increasing their emotional, mental and physical work load. Women’s vulnerability is further increased by the loss of men and/or livelihoods, especially when a male head of the household has died; the women have to provide for themselves and their families. Post disaster stress symptoms are often but not universally reported more frequently by women than men.

In addition, gender inequality in social, economic and political spheres results in vast differences between men and women in emergency communication; household decisions about use of relief assets; voluntary relief and recovery work; access

to evacuation shelter, relief goods and employment in disaster planning; relief and recovery programs.

Women are portrayed as the victims of disaster and their central role in response to disaster is often overlooked. A woman’s pre-disaster familial responsibilities are magnified and expanded by the onset of a disaster or emergency, with significantly less support and resources. Women play a central role within the family, securing relief from emergency authorities, meeting the immediate survival needs of family members and managing temporary relocation.

To target scarce resources effectively disaster practitioners should be aware of gender patterns in disaster, and respond appropriately. Seeing disaster through a gender lens can help identify key issues for policymakers, planners and practitioners, expose critical system gaps, and bring a gender focus into the analysis of disaster mitigation and response.

*Source: Force Field Analysis*

SLS – 2

Slide

## Incorporating Gender Issues into Disaster Management

It requires:

- a) **Generating sex disaggregated data for community vulnerability** and *capacity assessments* (mapping gender based vulnerability).
- b) **Identifying** those women who are marginalized and particularly at-risk, including:
  - i) Economically destitute women,
  - ii) Women belonging to racial and ethnic minorities,
  - iii) Women with chronic disabilities or health problems,
  - iv) Women subject to gender based violence, and
  - v) Women with insufficient security and privacy in shelters.
- c) Engaging women as full and **equal partners in community-based disaster mitigation and planning**
- d) Integrating women at the highest levels of planning and decision making in camp environments (particularly with respect to the health needs of women, including reproductive health services)
- e) Employing women as primary distributors of emergency rations and medical supplies.

Source- *Humanitarian Charter and Minimum Standards, The Sphere Project, 2004 Geneva 19, Switzerland*

## 6.2. Subject/Theme:

### **Emergency Healthcare: Needs of Vulnerable Groups**

#### **PART-I**

##### **Introduction and Overview**

Various types of disasters generate different types of challenges for health care personnel, including the paramedics and volunteers. In addition to major disasters like earthquake, flood and cyclone, there are peripheral emergencies like road, rail and air accidents, fire, drowning, stampede, which have an inherent potential to convert into mass casualty events (MCE) compounded by lack of emergency medical support. The type of emergency varies according to the kind of disaster and how and when it strikes. For instance, earthquake is most devastating when it occurs at night without warning and when people are asleep. Those who survive have fractures of pelvis, thorax and spine. When it occurs during the day time, injuries to arms and head are common. As children and women are mostly indoors they are the worst affected. Similarly during flood, there is sudden onset of morbidity and mortality. In extreme cold weather, accidental hypothermia mostly affects young children and elderly persons. During drought and famine, malnutrition, diarrhoea, dehydration add to morbidity and mortality of infants and children.

In any disaster situation, certain groups of people suffer more badly than others. These vulnerable groups are: women including adolescent girls, children including the newborns, aged persons, persons with disability and people suffering from chronic illness. Their emergency health care needs are to be attended on priority.

##### **Objectives**

Train the healthcare personnel including paramedics to remain on readiness to manage emergency health problems of the disaster victims effectively.

##### **Methods**

Informative and participatory presentation cum discussion, simulation games, field visits

##### **Materials/Learning Aids**

Guidelines on emergency health care, handouts, video on the subject

##### **Duration**

Two Sessions (For details refer page no. 9).

##### **Expected Learning Outcome**

###### ***Cognitive/knowledge Related:***

- a) Participants know what to do during an emergency caused by a disaster

###### ***Competency/Skill related:***

- a) Ability and skills appropriate for providing prompt and effective health

related assistance to the victims of a disaster.

- r) Disposal of debris; and
- s) Addressing grief, shock and trauma.

### Sub-themes/ Key Learning Points/ Issues

- a) Impact of disaster on health, hygiene and sanitation;
- b) Emergency health care needs of vulnerable people/groups;
- c) Common medical problems during a disaster;
- d) Why are some people more vulnerable than others (women, children, elderly and chronically ill, people with disability and the poor);
- e) Special Health Care needs of these groups;
- f) Types of vulnerability;
- g) Vulnerability to adverse psychological effects;
- h) Expectant mothers;
- i) Pre-postnatal care;
- j) Exploitation violence against women;
- k) Disaster-linked children illness;
- l) Managing common childhood illness;
- m) Care of the disabled;
- n) Care of elderly people;
- o) Care of people with chronic illness;
- p) Aspects of nutrition, food, hygiene;
- q) During water and environmental sanitation;

### Supplementary Learning Aids

- a) Handout on impact of disaster on Health, Hygiene and sanitation; and
- b) A Prevention Guide for Personal Health and Safety.

### Further study/References

- a) ***Disaster related emergency Health care of vulnerable groups: A handbook for paramedical workers, OSDMA, Odisha Institute of Medical research and Health Services, 2004***
- b) ***Medical preparedness and mass casualty management, NDMA, GOI, 2007***

### Note to the Facilitator

- a) This session is technical in nature and needs field experience and exposure;
- b) Take the trainees out to the field where these technical facilities are in operation;
- c) Ensure that the trainees are capable of identifying emergency health needs and prioritise them; and
- d) Use of local resources and indigenous health care measures should be considered.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Impact of Disaster on Health, Hygiene and Sanitation

Natural disasters (Floods - most recurring in India, earthquakes, etc.) have terrible impact on health, hygiene and sanitation of the affected area/community.

The most common impacts are:

- a) Interruptions of the availability of medical, pharmaceutical, and public health services;
- b) Disruption of fire services;
- c) Non-operational public sewer system;
- d) Hampered solid-waste collection or disposal efforts;
- e) Disrupted operations of public water systems;
- f) Danger of mixing of sewer water in potable water sources;
- g) Possibility of presence of toxic hazards in the drinking water; and
- h) Increases in the presence of vectors (e.g., rodents, mosquitoes, other biting insects).

### The Possible Medical Problems

- a) Outbreaks of diarrhoeal diseases such as, cholera, dysentery, etc.;
- b) Flood-related illnesses or injuries;
- c) Carbon monoxide poisoning (related to the indoor use of gasoline-powered generators), hypothermia, electrocution, wound infections, and exacerbation of chronic illnesses;
- d) Vector induced epidemics such as, Plague, Malaria, Dengue, Rabies;
- e) Snakebites;

## The Possible Medical Problems (Contd...)

- f) Skin diseases due to poor sanitation;
- g) Mental health deterioration;
- h) The public health impact of floods also includes damage or destruction to homes and displacement of the occupants that may, in turn, facilitate the spread of some infectious diseases because of crowded living conditions and compromised personal hygiene; and
- i) The occurrence of injuries may increase during the clean-up phase of a disaster.

### SLS – 2

#### Handout

## A Prevention Guide to Personal Health and Safety

- a) Purification of drinking and cooking water;
- b) Disinfection of wells;
- c) Food safety (i.e., handling of food that may have come in contact with flood water or of refrigerated food after the interruption of electrical power);
- d) Sanitation and personal hygiene;
- e) Injury-prevention measures to be taken during the return to and cleaning up of flooded homes;
- f) Communicable diseases and vaccinations;
- g) Mosquito control; and
- h) Other hazards such as animals, chemicals, and swift-flowing water.

### 6.3. Subject/Theme:

#### **Psycho-social Support in Disaster**

##### **PART-I**

##### **Introduction and Overview**

Disasters leaves a long trail of trauma and suffering resulting both physical and emotional impact on the survivors leading to social disability and decrease in total well being of the community. Appropriate psycho-social intervention during the rescue and relief periods significantly decreases the distress and disability among survivors, leading to an overall improvement in the quality of life. Hence there is a need to create psycho-social support to develop protective barriers for the community to reduce the long-term effects of disasters. The psychosocial effects after disaster severely impacts the normal healing process of survivors resulting in the prolonged time for recovery. Therefore psychosocial support be provided immediately to the survivors to help them overcome their loss and trauma. Well trained community level workers must reach out to different areas to explore the psychosocial needs of the survivors and then quickly develop a plan of action to start the healing process right during rescue and relief phase.

It should begin with:

- a) **Providing Psycho-social first aid;**
- b) **Sensitizing various personnel working in that area;**
- c) **Capacity building of community resources** for reaching out to the affected people;
- d) **Setting up a database for future monitoring** (K. Sekhar DD vol-1,N o-1); and
- e) **Psycho-social care preceded by vulnerability mapping and identification of high risk groups.**

##### **Objectives**

Equip disaster field workers, volunteers and community groups with knowledge, skills in psycho-social support techniques and basic counselling process so that they are able to provide the much needed support and care to the affected people.

##### **Expected Learning Outcome**

###### ***Cognitive/knowledge related:***

- a) Workers/volunteers are able to understand psycho-social needs of people affected by disaster and various aspects of delivering such support.

**Competency/skill related:**

- a) Basic skills of Psycho-social care;
- b) Develop ability to listen and interact maturely with the affected, share feelings;
- c) Meeting survivors’ immediate need;
- d) Provide Psycho-social first aid; and
- e) Vulnerability mapping to monitor current and future care needs, etc.

**Methodology**

Presentation by facilitator/trainer, brain storming, group discussion and interactive group activity, skill based lessons, participatory plenary sessions

**Duration/sessions**

Four sessions (For details refer page no. 9).

**Sub-themes/Key Learning Points/ Issues**

- a) What is psycho-social support and care;
- b) Why it is needed in disaster;
- c) Psychosocial needs assessment;
- d) Needs during rescue and relief phases;
- e) Understanding impact, distress, disability, tragedy;
- f) Skills needed to respond to the needs and basics of Psycho-social care;

- g) Vulnerability mapping;
- h) Psychological care models: normalization vs. deviancy model;
- i) Rebuilding eroded support system;
- j) Providing Psycho-social first aid;
- k) Mobilizing community resources;
- l) Training local volunteers, SHGs in on crisis and response;
- m) Developing capacities of care personnel, health workers;
- n) Building completeness among surviving population;
- o) Promoting a caring community; and
- p) Psychosocial aspects of disaster preparedness.

**Activities**

- a) Vignettes and an assignment to design sample action plans targeting different situations;
- b) Preparing for the disaster;
- c) Listening and counselling, sharing feelings;
- d) Getting information and referral; and
- e) Stress management and self-care.

**Supplementary Learning Aids**

- a) Sample guidelines with sample techniques to respond to crisis;
- b) Handout on disaster related Psycho-social care and support;

- c) Vulnerability and capacity mapping;
- d) Counselling tips; and
- e) Disaster-Distress-Disability-Role of community level workers.

#### **Further reading**

- a) ***Psychological Support Policy***, IFRC, Geneva, 2003
- b) ***Psychosocial consequences of Disaster***, WHO, 1992
- c) ***Riots: Psychological care by community level helps for survivors***, Action Aid

- d) ***Technique of Psychosocial care for Tsunami survivors***, NIMHANS, 2005

#### **Note for the Trainer/Facilitator**

- a) This session requires resource persons skilled on the subject and sensitive enough to handle the issue; and
- b) Arrange Role play to ensure that the learning has been internalized.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Understanding Disaster related Trauma

Even after several weeks of disaster victims/survivors experience ongoing and recurrent nightmares. Symptoms of such trauma fall mainly into four categories; each further comprises of a number of symptoms.

### Understanding Disaster related Trauma (Contd...)

#### First category

- a) Intrusive & distressing recollections of events, flashbacks (feeling as if the event were recurring while awake);
- b) Nightmares (the event or other frightening images recur frequently in dreams);
- c) Heighten emotional and physical reactions; and
- e) Survivor guilt.

### Understanding Disaster related Trauma (Contd...)

#### Second category

- a) Avoidance behaviour;
- b) Avoidance of relationship; and
- c) Avoidance of activities, places, thoughts or conversation related to trauma.

## Understanding Disaster related Trauma (Contd...)

### Third Category

- a) Emotional numbing (loss of interest, feeling detached from others, restricted emotions).

## Understanding Disaster related Trauma (Contd...)

### Fourth category

- a) Hyper arousal;
- b) Sleeping disturbance;
- c) Irritability or outburst of anger;
- d) Difficulty in concentrating;
- e) Hyper-vigilance; and
- f) Heightened startle response.

In such traumatic situation medical and psychological interventions are vital to get victims back to a life of normality.

## SLS - 2

### Handout

## Psycho-social Support - Listening Skills: Do's and Don'ts

### Do's:

- a) Show interest in the person you are trying to help;
- b) Try to understand his/her problems;
- c) Express empathy;

## Psycho-social Support - Listening Skills: Do's and Don'ts (Contd...)

### Do's:

- d) Single out the major problem if there is one;
- e) Listening for the causes of the problem;
- f) Help the person to associate the problem with the cause;
- g) Encourage him/her to solve the problem; and
- h) cultivate the ability to be silent when silence is needed.

## Psycho-social Support - Listening Skills: Do's and Don'ts (Contd...)

### Don'ts:

- a) Argue;
- b) Interrupt;
- c) pass judgments too quickly or in advance;
- d) give advice unless it is requested by the other;
- e) Jump to conclusions; and
- f) Let the person's emotions, react too directly on your own.

(Source: Training for transformation)

### SLS - 3

## Medical Preparedness and Mass Casualty Management

- Important considerations for developing the Hospital DM Plan  
(*NDMA Guidelines, October 2007, pg 104*)

## SLS - 4

### Hospital Preparedness

*(NDMA Guidelines, October 2007, pg 40)*

## SLS - 5

### Transportation and Evacuation of Casualties

*(NDMA Guidelines, October 2007, pg 34)*

## SLS - 6

### Communication and Networking

*(NDMA Guidelines, October 2007, pg 36)*

# Section 7

## Training Service for Civil Defence

### Content

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### Supplementary Learning Support materials

- ★ What and Why of Training in Disaster Management, *p124*
- ★ Training Needs Assessment, *p125*
- ★ Developing Appropriate Training Strategy, *p126*
- ★ Multiple roles and skills of the Facilitator, *p127*
- ★ Additional skills: Do's and Don'ts, *p128*
- ★ Slide - Facilitation skills, *p130*
- ★ Power Point - Methods of Skill Development, *p131*
- ★ Role of Games and Activities in Training, *p135*
- ★ Do's and Don'ts in Training, *p136*



## 7.1. Subject/Theme:

### Training in Civil Defence

#### PART-I

##### Introduction/Overview

The country needs a critical mass of well trained professionals to respond effectively to meet pre, during and post-disaster challenges. As **Master Trainers** they could transmit training skills to others down the line. Since it has been planned to keep in readiness at least one percent of the population in the country to meet any emergency situation, training services in Civil Defence Organization would need continuous strengthening and expansion. A volunteer based organization can motivate its workers on a sustainable basis only through creative, imaginative, innovative and action-oriented training.

Since they have to **update** their skills as **trainees** and then **transmit** it to others as **trainers**, they must have both knowledge and competencies on various aspects of disaster management. Further, they also need to be familiar with the latest training

techniques and methods to function as good trainers. When education on a subject is to be put into practice, the process is called training. It involves learning as well as de-learning that helps individual to acquire new knowledge and skills to achieve goals and objectives of the assigned work. It also helps people to understand their capacities, develop their potential and optimize their creative energy in the field. Through continuous training, re-training, refresher and orientation, an organization can create a pool of efficient and effective workers. For this to happen, the training system, strategy, environment, content and process need to be examined and updated.

##### Objective

To create a critical mass of Master Trainers for undertaking training programs on different aspects of disaster management

##### Methods

Refer list of training methods given in this section and adapt those as per the need of the thematic sessions.

### Materials / Learning Aids

A training facility for 30 persons, audio-visual aids, OHP / LCD, flip chart, white board with marker, pictures, posters, sheets of paper and other materials for games , exercises , demonstrations etc.

### Duration

Eight Sessions (For details refer page no. 9)

### Expected Learning Outcome

#### ***Cognitive knowledge related:***

- a) Look into themselves and their functioning;
- b) Understand various methods of training and needs of trainees;
- c) Thorough knowledge of the disaster scenario, situation and possible responses; and
- d) Attitudinal changes.

#### ***Skill/Competency related:***

- a) Ability to assess training needs and frame appropriate training design;
- b) Ability to develop skills and competency among the trainees;
- c) Capacity to apply various training methods and strategies;
- d) Identify problems in their work situation;
- e) Plan objectives and action programme;

- f) Identify target audience for training; and
- g) Develop skills in action training.

### Sub-themes / Key Learning Points

- a) What and why of training in disaster management;
- b) Training Needs Assessment;
- c) Developing appropriate training strategy;
- d) Setting objectives of the training;
- e) Need for community capacity building;
- f) Types of training programme for the target audience;
- g) Deciding the training content;
- h) How to organize a training programme;
- i) How to make training programme participatory;
- j) How to develop skills and competencies;
- k) How to develop learning support aids;
- l) Suggested Training Methodologies in CD context;
- m) Selection and use of training methods;
- n) Importance of experiential learning in training programme;
- o) Role of games and activities in training;

- p) Evaluation of a training programme; and
- q) Do's and Don'ts.

### Supplementary Learning Support Materials (SLS)

Handouts, slides, maps, charts, films/ videos reference materials, assessment forms, questionnaires, etc.

### Further Study Reference

- a) **Participatory Training for Development**  
by Kamla Bhasin, FAO, Bangkok
- b) **Evaluation and Control Of Training**  
by A.C. Hamblin, McGraw- Hill, London
- c) **Training Manual in Helping Professions**  
by Kiran Wadhera, Biswa Yuvak Kendra , New Delhi
- d) **Training and Attitudinal Change**  
by Kuldeep Mathur, Future Prospects, New Delhi
- e) **A Manual and Resource Book for popular Participation training by United Nations**, Volume I, II, III and IV, New York

### Note for the facilitator

- a) Use these methods generously during the sessions to help trainees internalize the skills;
- b) Ensure that resource persons confirm to the training goal and objectives;
- c) Limit any segment of speaking on the subject to 20 minutes;
- d) Build right environment and friendly ambience to promote participation;
- e) Prepare supplementary materials well in advance;
- f) See that content of training consists of all five parts of learning needs i.e. awareness , knowledge , skills, behaviour and practice;
- g) Try a variety of methods appropriate to the context;
- h) Test participants' knowledge and skills acquired from time to time;
- i) Encourage a few trainees to conduct mock sessions using the methods;
- j) Guide resource persons before the session;
- k) Help in post-session evaluation; and
- l) Conduct a post-training evaluation.

*This session can be developed into a full fledged **Training of Trainers Programme**.*

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### *Handout*

### **What and Why of Training in Disaster Management**

In accordance with the Civil Defence revamping revised policy, CD Wardens will now be linked to Districts and geographical units. Thus as per recommendation of the revamping report, each District will now need 800 Wardens making up a total of 4,80,000 Wardens in the country. All of them need to be trained as trainers of volunteers who in turn would train the community as first responders. In view of this, the training-services in Civil Defence would emerge as a key component as the major thrust now would be on increasing community awareness and coping capacity in pre-disaster arena. In order to train this huge number of wardens, in a time-frame of 3 to 5 years, each State will have to set up training institution with annual training capacity of 3000 to 5000 trainees. In addition, they have to train Civil Defence

staffs/functionaries, CD volunteers, youth organizations, PRI office bearers, urban local bodies, NGOs, NYKS, NCC, NSS, Scouts and Guides, Youth Red Cross etc. Therefore capacity building of Wardens and key functionaries of other organization will continue to be a priority. The present training Hand Book has been designed based on a training need assessment, to take care of this priority and the resultant needs. (Please see the TNA questionnaire at Annexure I). The National Civil Defence College along with the National Institute of Disaster Management (NIDM) would design and develop specific modules on various aspects of disaster management along with relevant training aids/materials/literature taking into consideration the specific needs of organizations engaged in disaster management.

## SLS - 2

### Handout

## Training Needs Assessment (TNA)

The training needs assessment is a critical activity for the training and development function. The purpose of a training needs assessment is to identify performance requirements or needs within an organization in order to help direct resources to the areas of greatest need, those that closely relate to fulfilling the organizational goals and objectives, improving productivity and providing quality products and services.

TNA gives major input towards designing any training programme. The **needs assessment** is the first step in the establishment of a training and development Program. It is used as the foundation for determining instructional objectives, the selection and design of instructional programs, the implementation of the programs and the evaluation of the training provided. These processes form a continuous cycle which always begins with a needs assessment.

Therefore, any effective and efficient training program must start with a **needs** assessment long before any actual training occurs. The assessment begins with a need which can be identified in several ways but is generally described as **a gap between what is currently in place and what is needed, now and in the future**. Gaps can include discrepancies/differences between:

- a) What the organization expects to happen and what actually happens;
- b) Current and desired job performance; and
- c) Existing and desired competencies and skills.

A needs assessment can also be used to assist with competencies and performance of work teams.

A correct training Need assessment must explore and determine the W<sup>5</sup> and H as follows.

<b>Who</b>	<b>(If anyone, needs training)</b>
<b>What</b>	<b>(The content / thrust area of the training)</b>
<b>When</b>	<b>(Period of time when ideally the training should be conducted)</b>
<b>Where</b>	<b>(Venue / location of the training to get maximum benefit)</b>
<b>Why</b>	<b>(The need to prepare for and respond to future changes)</b>
<b>How</b>	<b>(The methodologies adopted) of training.</b>

There are three levels of needs assessment: organizational analysis, task analysis and individual analysis. All three levels of needs analysis are interrelated and the data collected from each level is critical to a thorough and effective needs assessment.

Assuming that the needs assessment identifies more than one training need, the training manager, working with management, prioritizes the training based on the urgency of the need (timeliness), the extent of the need (how many employees need to be trained) and the resources available.

### SLS - 3

#### *Handout*

### **Developing Appropriate Training Strategy**

Training strategy is a carefully-prepared effective plan for achieving goals and objectives of any training programme. In order to make training easier to implement, more effective in capacity building, and simpler to monitor and evaluate, it should always be guided by a comprehensive strategy. Without such a strategy, training efforts generally remain reactive, i.e. piecemeal and uncoordinated responses to emerging problems.

A training program guided by strategic thinking is pro-active. That's because a carefully planned strategy links training

to programme and project benefits and expected outcomes. It ensures training is taken into account early enough in a programme so that the right levels of TNA, design and development are put in proper perspective.

Some of the factors that add to the quality of the training strategy are;

- a) Identification and prioritization of the various personnel groups who need to be trained (the target trainees);
- b) Careful analysis of TNA;
- c) Identification of skill gap - understanding where there may be gaps, will help you identify the types of training you need;
- d) Secured support of management and staff commitment (Before executing a training program, one needs to get support from the host or senior level officials especially regarding the plan milestones, costs, dates and deliverables for the training);
- e) Determination of the different approaches and delivery techniques to produce the required expertise for carrying out the tasks (training methods);
- f) Identification of agencies and groups that could collaborate in implementing the training strategy and programs;
- g) Formulation of ways and means for

securing financial resources for the training programs. It's important to balance your need to save with the long-term benefit of developing staff. Try to determine the best type of training available for the amount you have to spend; and

- h) Last but not the least, analysis of training efforts and their impact should be considered while developing training strategy.

## SLS - 4

### Handout

## Multiple roles and skills of the Facilitator

- a) **Options for a Versatile Facilitator:** A Teacher/Trainer/Facilitator needs to be versatile in adopting a variety of role models and using them effectively. S(he) should also have a good knowledge and understanding of group dynamics;
- b) **Leader/Instructor:** S(he) initiates proceedings, demonstrates control over content and process of training. However, in this method, learners become over-dependant. This is called 'mother hen' and their 'little chicks' syndrome;
- c) **Neutral Guide:** A trainer as a neutral guide, controls procedure but

does not contribute to the content in any determining way, creates a democratic environment - remains non-judgmental;

- d) **Facilitator:** Careful Listening and eliciting, rather than displaying one's knowledge, creates a sense of shared responsibility for learning. It makes learning student centred;
- e) **Counsellor:** Looks after learner's social and emotional needs. Negative feelings can be destructive if ignored, and resurface as backbiting and other forms of negative behaviour;
- f) **Adviser:** Sits outside the perimeter of the group, offers friendly advice to help group interaction;
- g) **Non-Directive:** Promotes creative inquiry, independence of autonomy in learning, works as a counsellor;
- h) **Mobile Friend:** When a large group splits into sub-groups to discuss a task/issue, the Trainer moves from group to group;
- i) To hold group discussion plan on track,
- ii) To help the group with ideas,
- iii) To take note of important points,
- iv) For discussion in the plenary.
- i) **Communicator:** Communication plays a vital role in promoting learning and change. A Teacher/Trainer/Facilitator is a learning manager and whatever s(he) does

carries a message and meaning for the learners. Good communication skills come as a handy resource and if the Tutor tells what s(he) does, it adds value to her/his communication. At each level of learning, i.e.;

- i) Awareness building
- ii) Understanding
- iii) Support and reinforcement
- iv) Involvement and participation
- v) Internalization

The trainer has to depend on communication skills.

- j) **Evaluator:** Gives feedback on assignments provides framework of assessment strategy, gives update on matters pertaining to exam, and offers advice and guidelines on project work; and
- k) **Co-facilitation:** Partners in Learning: Co-facilitation is a process through the tutor involves a selected member of the learning group to help him/her in reinforcing the learning.

*Source: **Learner Centre Learning** by Dr. Bhagbanprakash, Commonwealth Youth Programme, year 2003*

## SLS – 5

### Handout

#### Additional Skills: Do's & Don'ts

- a) Looking around the group, don't forget to scan the group when you

as well as the learner talks;

- b) As the contribution ends, draw in other less vocal ones to speak;
- c) Discourage one-to-one dialogue in favour of group discussion;
- d) Look for signals in group members - Anxiety? Puzzle? Want to intervene or say something?;
- e) Encourage/invite learners into discussion or ask questions for clarification of doubts;
- f) Use non-verbal communication: it works wonders when you feel verbal intervention may not be appropriate or when you feel the spoken word may be distracting;
- g) Sometimes a verbal stimulus to non-verbal communication may be needed. For instance: when a learner smiles or looks puzzled, the Tutor may intervene and draw him/her into discussion by saying "what do you think Monica" or "what makes you smile Raza"?;
- h) **Turning questions back:-**
  - i) Trainee/participant: Sir/ Madam, "can you tell us what exactly disaster is?;
  - ii) Trainer/Facilitator: "Well, let us know what do you think about it?"; and
  - iii) This helps trainees in formulating their own ideas on the question.

- i) **Supportive Intervention:**
- i) An effective Tutor/Trainer creates a feeling of security and belonging and an atmosphere of trust and openness where learners do not have the fear of making a fool of them and feel their views are valued;
  - ii) Don't reject or correct the first and feeble contribution a learner tries to make in a group discussion. It inhibits expression.
- j) And in case some corrective action is felt essential, it could be done in a 'less inhibiting and more elevating way' like:
- i) **Cross - check and rebuilding:** all participants are not articulate. In order to avoid confusion in the group the Tutor can make polite intervention by saying: "ok, let me check if I have understood you properly. Are you saying that ...?"; and
  - ii) **Re-directing:** as soon as the trainer/facilitator feels that there is a need to change the course of discussion(s) he could take the group into confidence by saying: "Do you think we have had enough discussion on this issue? Do you think we should now change the present topic and go over to the next one?"

Source: **Learner Centre Learning** by Dr. Bhagbanprakash, Commonwealth Youth Programme, year 2003

**SLS - 6**

*Slide*

### Facilitation Skills

- a) Persons using this Hand Book must have skills of participatory training.
- b) They are expected to have prior experiences of running training workshops.
- c) Facilitators need good listening skills and understanding of group dynamics.
- d) Should be able to encourage mutual respect and understanding.
- e) The behaviour of the facilitator should not contradict aims, values and principles of the training.
- f) The facilitator need to examine his/her own prejudices and assumptions.
- g) Should not discriminate deliberately or unwittingly against people with disability, illiterates or any disadvantage groups.

## SLS - 7

### Power Point

#### Methods of Skill Development

The following is a list of methods to make disaster related training more effective;

- a) **Brainstorming** - A technique for stimulating and eliciting a basketful of new ideas and angles on disaster related issues for debate and evaluation;
- b) **Buzz Groups** - A short period during a lesson in which several small groups intensively discuss a given issue, often followed by a discussion;
- c) **Case Study** - Used for an in-depth analysis of a problem. A problem, real or stimulated is presented for in-depth analysis. Learners discuss and suggest solutions. These are frequently used to describe a situation or incident, which is used as a basis for discussion and learning;

#### Methods of Skill Development (Contd..)

- d) **Controlled Discussions** - A discussion in which participants may raise questions or comment but the tutor/trainer controls the general direction through constructive intervention;
- e) **Fishbowl** - A discussion group in an inner circle surrounded by a silent 'observation' group often followed by role reversal and discussion in plenary session;
- f) **Free Group Discussions** - A group discussion in which topics & direction are largely controlled by members, not tutor/trainer;

#### Methods of Skill Development (Contd..)

- g) **Problem-centred** - A group with a specific open-ended task, which is discussed, with findings reported at plenary session or summarized on a poster;
- h) **Group Projects** - A practical group exercise or individual activity involving investigation of a problem and often conducted in the field;

### Methods of Skill Development (Contd..)

- i) **Incident Method** – A modification of case study, this method identifies an incident or situation to which there can be more than one solutions. A person who knows the incident presents it. Trainees are asked how they would approach/solve the problem in sub-groups. The Group reports to the plenary. Then facilitator informs the groups actually how the issue was solved/approached followed by discussion and summing up;
- j) **Pyramid** – An **idea** generating technique whereby groups of two briefly discuss a problem, then form groups of four and groups of eight for further discussions prior to reporting back;
- k) **Questions** – Tutor/trainer displays a question and then elicits answers for discussion and elaboration by group. This can also be used as a quiz;

### Methods of Skill Development (Contd..)

- l) **Role Play** – A simulation in which participants act out roles in imaginary or real situations for deeper analysis of the issue. It tries to help learners find personal meaning within their social worlds and resolve personal dilemmas with the assistance of the social group;
- m) **Seminar** – Plenary/Group Discussion preceded by presentations by selected/key participants;
- n) **Simulation Games** – Is an educational innovation, an exercise involving essential characteristics of a specific and real situation where participants re-enact specific roles;

### Methods of Skill Development (Contd..)

- o) **Step-by-Step discussions** – A discussion organized around a carefully prepared sequence of issues and questions to draw out the required information from participants/learners;
- p) **Field Visits/Agency Visit** – Trainees are taken to a specific project or institution. The purpose is to demonstrate to the trainees an ongoing project for gaining practical experience and develop realistic perspective. After the visit trainees are asked to evaluate and discuss learning points;

## Methods of Skill Development (Contd..)

- q) **Focus Group Discussion (FGD)** – This involves bringing 10-15 people together with particular characteristics relevant to the development issue and leading them through a focused discussion on the given issue/topic. FGD provides an excellent opportunity to study group dynamics and get feedback on perception beliefs and behaviours influencing human development most suitable in field based project work;
- r) **Syndicate** – Several sub-groups forming part of a larger group each working on a problem for a set time and reporting later to the whole group;
- s) **Tutorial** – A meeting with a small group, often based on a present topic or previous lecture. Use of Tutorial letters as a follow up activity. Give/assign tasks to the learners and ask them to make written/oral presentations during tutorial sessions;

## Methods of Skill Development (Contd..)

- t) **Workshop** – A 'hands on' participating experience involving several methods and directed at developing skills or attitudes. It makes trainees work and produce something concrete, i.e. a document, a plan etc.;
- u) **Laboratory** – In-depth analysis and dissection of an issue that involves relationships, attitudes and beliefs;
- v) **Posters** – Powerful and effective posters on various aspects of disaster, search, rescue, relief, skills and operations can be used to initiate discussion on skill-intensive subjects;

## Methods of Skill Development (Contd..)

- w) **Flash Cards** – Like posters, flash cards can be used to disseminate knowledge and information to the trainees. It can be prepared in pictures or in words based on the content. Each card is displayed separately supported by verbal comments and opened for discussion;
- x) **Use of Technology** – For example, e-mails, e-group, radio broadcasts. These enable learners to share information with each other and with the tutor;

## Methods of Skill Development (Contd..)

- y) **Peers Critique** – In this method, a learner is encouraged to explain a topic of study and the co-learners provide the feedback. The tutor summarizes the discussion;
- z) **Metaphoric Activity** – Metaphors introduce conceptual distance between learner and object or subject matter and creatively become a conscious process. It helps learners connect and perceive something in a new way and empathize. For example, learners may be asked: Be a tree on road and describe how you feel like when a cyclone hits or be a flood victim and narrate your feelings, etc. An empathetic identification with a living being or social issue sharpens the conscience of the learners and broadens her/his understanding;

## Methods of Skill Development (Contd..)

- aa) **Stretching Exercises** – Metaphors also can be used to stimulate a creative process in learning groups. This is called stretching exercises through **(1) Direct Analogies** i.e. what are your favourite role models and why? **(2) Personal Analogies** i.e. be a bird, a cloud or a river, where are you now, what are you doing? How do you feel? **(3) Compressed Conflicts** i.e. How many fat and slim machines do you have at home? Describe how many look like living beings;
- ab) **Chaining** – This is a useful method of skill- building. Learners are asked to collect information about social issues like gender, reproductive health, environment, flood, drought, landslides etc. from their own areas and develop pictures about how these are related to demography and economics;
- ac) **Selection and use of method** – To ensure maximum benefit and effectiveness of a method, ensure that it is content specific and a means to reinforce learning. It must bring to focus important aspect of the subject matter;

## Methods of Skill Development (Contd..)

- ad) **Training Techniques** – All training methods and techniques can be described in two parts. - “open’ or “closed”. The open technique like brain storm, storytelling, designing a poster etc. aims at stimulating creativity, raise awareness. The closed techniques like mock-drills, exercises are used to learn facts and practiced skills; and
- ae) **Moser and Harvard Analytical Frame work** – This technique has four aspects. : (i) **creative/investigative** (PRA, Listening, Survey), (ii) **Analysis** (case study, project analysis); (iii) **Planning** (Action plans) and (iv) **Informative** (presentation, quiz etc.).

Source: **Learner Centre Learning** by Dr. Bhagbanprakash, Commonwealth Youth Programme, year 2003

### SLS - 8

Handout

#### Role of Games and Activities in Training

Games, exercises, activities, demonstrations, mock-drills are parts of joyful, entertaining experiential learning.

- a) Trainees like to experience situations where each person has a chance to acquire new insight into the subject. Games create active participatory learning;
- b) The fun aspects of a game promote involvement of learners in the process of learning;

- c) Educators hold the view that the most effective way of learning is active learning or learning through action or learning by doing. Games also provide immediate feedback, instant information about a situation or an issue;
- d) In skill-practice games, the correctness of the effort is immediately known. The possible mistakes or blunders in a given

- situation are immediately known and corrected;
- e) Another important aspect of games is that they are non-threatening in nature. Games rather break the monotony and boredom of continuous concept and heavy sessions. Games make learning interesting;
  - f) Games promote applications to real settings and roles. These provide an open framework through which a learner tests reality. Games are also very easy to create and reproduce;
  - g) We have categorized the games into three types namely, Skill **practice games**, **Role-playing games** and **Simulations**; and
  - h) In the disaster management context, skill practice games are very relevant as they provide learners with practice until they become confident of their mastery over their skills and willing to use it in real life situations.
- b) Don't attempt to solve problems and shortcomings of the organization by throwing a training programme;
  - c) Make training a part of the structure of the program to be implemented;
  - d) Establish policy, procedures and practice to take up, follow up and integrate results of the training;
  - e) Don't organize training for the sake of it without adequate preparation;
  - f) Always do a **training need analysis** well before designing training content;
  - g) Remember, training can be used by institutions as an excuse not to do anything else;
  - h) Select resource persons with a lot of care; avoid particularly those who cannot run the sessions in a participatory way;
  - i) Encourage users / sponsoring institutions to depute those whose skills can be used in the field;
  - j) Do not stuff too many participants into a training course, **ideal number is 25** which may be stretched to 35;
  - k) Reduce ceremonies to the minimum in order to give more time to substance; and
  - l) Always evaluate the impact of training to learn the lessons.

In simulation games, the content of learning provides direct relevance to the lives of the learners.

### SLS - 9

#### Handout

### Do's and Don'ts in Training

- a) Training is a tool – not an end in itself;

# Section 8

## Action & Practice/Training on Disaster

### Content

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8.2.	Learning basics of Disaster First Aid	152
8.3.	Practical, Mock Drills, Exercises & Field Demonstration	157

### Supplementary Learning Support materials

- ✦ Handout on Important components of Search and Rescue, *p142*
- ✦ Do's and don'ts of Search & Rescue, *p143*
- ✦ Search and Rescue Operation of a Collapsed Building at Bellary (Karnataka), *p144*

- ✦ Bomb Blast at Paharganj: A Case Study of Hospital Response, *p149*
- ✦ Case Study: Knowledge of First Aid – A Must for Everybody, *p154*
- ✦ Handout on Right to Emergency Care, Supreme Court Ruling, *p156*
- ✦ Visuals on use of Ropes and Knots and Lashings, *p159*
- ✦ Visuals on Rescue Techniques, *p161*
- ✦ Diagram on Triage Procedure in First Aid, *p165*
- ✦ Visuals on First Aid, *p166*

## 8.1. Subject/Theme:

### Importance of Search and Rescue in Disaster

#### PART-I

#### Introduction and Overview

Search and Rescue are important life-saving activities during any disaster. These specialized, technical and skill based interventions are made by groups of well trained persons. Past experience has shown that almost immediately after every major disaster, the first response for search and rescue of the trapped and injured comes spontaneously from well-intentioned and yet untrained persons who pay little regard to personal safety and endanger the victims. In order to avoid such problems associated with spontaneous action, search and rescue activities need to be well planned and properly implemented.

Search and Rescue operations are undertaken at two levels, namely **i) Community and local level** and **ii) Outside the community**. The decision

to attempt a rescue is also based on two factors, i.e., **i) The actual risks involved** and **ii) The overall goal of helping the largest number of affected people**. Similarly, people/volunteers engaged in search and rescue operations also need appropriate tools to be effective. These tools vary from situation to situation. For instance, storm and earthquake damage require boats, ropes and life-preservers at the appropriate time. In terms of time, the first 24 hours are known as the **golden period** as during this period, the injured and trapped victims have an 80 percent chance of survival when found and rescued.

#### Objectives

- a) Enables trainees to undertake rescue operations for people trapped on account of various disasters;
- b) Provide First-Aid Services to trapped survivors;
- c) Recover and dispose off bodies of the deceased; and
- d) Provide support and protection to endangered, collapsed building and structures, debris clearance.

### **Methodology**

Demonstration, mock exercise, drills, field visits, practical, simulation game.

### **Materials/Learning Practise Aids**

- a) Search and Rescue tools (i.e. human crutch, pick-a-back, fireman's lift, bowline drag, etc.); and
- b) Ropes, ladder, knots and lashings, stretchers and casualty transportation, water rescue tools, own hands (skills of making two/three/four handed seats), pocket torches, globes, thick pieces of cloth, spades, axes, blankets, wooden planks, buckets, rescue equipment and other tools for mock drill, etc.

### **Duration**

Eight sessions (For details refer page no. 9). The number of sessions can be increased depending on the needs of the trainees.

### **Expected Learning Outcome**

#### ***Cognitive/knowledge related:***

- a) Full knowledge of safety measures as well as of role and responsibilities required for emergency search and rescue, its various stages; and
- b) The three key principles, i.e. Look, Listen and Feel for assessment of the situation.

#### ***Competency/skill related:***

- a) Enhanced ability to work under adverse conditions;
- b) Ability to take immediate decision and action;
- c) Ability to provide first-aid to the trapped survivors;
- d) Skills for emergency rescue, use of rescue tools and equipment;
- e) Team work and leadership skills;
- f) Ability to plan the rescue operation (manpower, equipments, methods); and
- g) Ability to mobilize and coordinate community based search and rescue operations.

#### **Sub-themes/Key Learning Points**

- a) What is Search and Rescue;
- b) Need for planning, situation and resource assessment;
- c) Building Search and Rescue Team;
- d) Duties of rescuers, knowing limitations;
- e) Stages of Rescue-Emergency Rescue, immediate rescue;
- f) Specialized rescue;
- g) Evacuation steps, lifts and drags;
- h) Safety considerations, need for First Aid;
- i) Rescue from damaged buildings;

- j) Rescue from water;
- k) Rescue equipments and tools, their use;
- l) Use of ropes, knots and lashings; and
- m) Casualty transportation.

### Supplementary Learning Support

- a) Handout on Search and Rescue Operations;
- b) Do's and Don'ts on search and rescue;
- c) Duties of the rescuer, stages of rescue;
- d) Rescue tools and equipments;
- e) Case study of Hospital response after Pahargunj blast;
- f) Handout on Emergency Rescue;
- g) Handout on Rescue from damaged buildings;
- h) Handout on use of Ropes, knots and lashings; and
- i) Guidance notes for search and rescue.

- b) **Handbook of Community Based Search and Rescue, Cyclone Shelter Programme**, Indian Red Cross Society, Odisha State Branch and Spanish Red Cross.

### Note for the Facilitator

- a) This session is heavily activity oriented and accordingly the facilitator should be able to organize a series of field activities for practical experience;
- b) The facilitator/trainer should ensure that the trainees have well rehearsed about how to use the equipments for search and rescue operations;
- c) It should also be ensured that each and every trainee is able to understand and follow the basic rules and principles in search and rescue operation; and
- d) The duration of the sessions is flexible. It could be lengthened based on local needs, past experiences of the trainees and the nature of the challenges.

### Further Study/ References

- a) **Community Based Disaster Preparedness - A Handbook of Concepts and Techniques**, Chapter-8, Search and Rescue, pp-24-31, Swiss Agency for Development and Cooperation (Sunil Bhagwani)

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Important Components of Search and Rescue

- a) Identifying the location of disaster victims trapped or isolated;
- b) To save life of the disaster victims by bringing them to a safe location;
- c) Providing them with medical attention;
- d) To ensure the survival of the maximum possible number of victims;
- e) Do's & Don'ts;
- f) To facilitate search & rescue by the experts;
- g) To Work out the Search and Rescue plan with the local people;
- h) Involving various teams in appropriate steps;
- i) Involving the local people from the community who are well versed with the local area and can be instrumental in searching;
- j) Relocation of the victim to the safer areas through community mapping;
- k) To provide shelter and other relief material;
- l) To control panic, rumours, confusion;
- m) Providing moral support to the victim;
- n) Providing food, drinking, water, first-aid and psychosocial care to the victims at the affected places and also to the stranded people who are in life threatening situation awaiting rescue;
- o) Providing post evacuation relief through emergency supplies and services;
- p) Approach damaged buildings and facilities, if required, from the least dangerous side or access;
- q) Move very carefully over building ruins (only if it is absolutely necessary) as they are unstable heaps of unconnected fragments;
- r) When dismantling or clearing ruins, first drag away and extinguish any smouldering or burning objects;

## Important Components of Search and Rescue (Contd...)

- s) Open doors to burning rooms very cautiously; be aware of possible flame or hot gas ejection;
- t) In burning spaces, move by bending low or else on your knees;
- u) Try to stay near windows of the burning space making it possible to get quickly out of the danger zone if need be;
- v) Enter the basements of burning buildings only after a long period of ventilation as large concentration of carbon monoxide gas is possible in these basements;
- w) Shut off / switch off all piped service mains (water/gas) and electricity lines in collapsed buildings; and
- x) If there are electric power cables at the excavation site, wrap your hands by some insulation before using metal spades and picks, in order to avoid electric shock.

## SLS - 2

### Handout

## Do's and Don'ts of Search and Rescue

- a) While searching **do not** walk over rubble, if not that necessary;
- b) **Do not** enter collapsed buildings or facilities;
- c) **Do not** walk or stay near badly damaged or collapse prone building / construction / facilities;
- d) While surveying indoor space in buildings, **do not** use open lights like torches / kerosene lamps for lighting;
- e) **Do not** allow many people to gather in one spot, in shafts, or floors; and
- f) In case an electrical cable is uncovered, **do not** step on the cable - avoid further damage or tearing.

## SLS - 3

### Case Study

#### **SEARCH AND RESCUE OPERATION OF A COLLAPSED BUILDING AT BELLARY (KARNATAKA)**

##### **THE BUILDING**

It was a five story building with thirty 2BHK apartments. On 26 January 2010 at 1830 hrs the first, second and the ground floor were collapsed completely and assumed the shape of pan cake pattern, whereas third, fourth and fifth floors were resting on the collapsed portion. Walls inside the 3rd , 4th and 5th floors were also badly damaged. Part of the building fell over adjacent single storey hostel and killed one student

##### **POSSIBLE REASONS OF COLLAPSE**

- No permission taken for 5th floor
- Building was on reclaimed marshy land
- Poor planning of building lay out
- Lack of approach roads on the rear and flanks
- Poor construction materials
- Uneven storing of ground/first floor with 40 tons of cement and 42 tons of granite slabs.

##### **DISTRESS CALL**

On the intervening night of 26th and 27th January 2010 at around 2345 Hrs, 5 BN NDRF received an information regarding collapse of a five storey under construction residential building at Bellary, Karnataka through Shri K M Singh, Hon'ble Member NDMA, National Disaster Response Force HQr and Karnataka State Disaster Management Authority (SDMA). The SDMA Karnataka requested to send a specialist search rescue team from this unit for search and rescue operation. Immediately Shri Alok Avasthy, Commandant ordered the movement of two search and rescue teams along with State of art search and rescue equipments with out wasting any time. Accordingly with the help of NDRF HQr., two AN-32 transport aircraft of Indian Air Force were arranged.

##### **COMPOSITION OF TEAMS**

Two teams each consisting of 50 rescuers under command of Shri R.S.Rajesh, Assistant Commandant and Shri Sanjay Gosain, Assistant. Commandant along with 1500 Kgs load of search, rescue, power, lighting, generator and safety equipment etc, two rescue dogs were dispatched to Bellary at 0500 hrs on 27/01/2010 and teams reached at incident site at 1045 hrs on the same day.

## **SPECIAL EQUIPMENTS**

Rotary rescue saws, Angle cutters, Chipping hammers, Victim location search cameras, Dust/smoke ventilators, Hammers of various size, Chisels of various size, Power generators, Aska emergency lighting system, Full set of medical first response kits, High rise building rescue equipments

## **RESCUE**

After reaching the collapse site the Team commanders surveyed the building. After consulting with incident commander and other agencies involved in rescue operation, it was learnt that total 40-45 personnel were suspected to be trapped under the debris of a collapsed 05 story building.

## **STRATEGY**

Team commander divided the team into 3 small groups. There is a working group, stand by group and rest group. Each group will work for three consecutive hours and then take turns. In case of an emergency standby group will also join with working group.

## **PROGRESS OF OPERATION**

### **(i) On 27th January 2010 :**

During the first two hours, along with other agencies like army, fire services, NDRF team had recovered thirteen persons trapped in the debris (basically surface

victims) and four dead bodies. After that NDRF was given sole responsibility of starting the rescue operation. The team commander decided to start the rescue operation from the front side of the building. Within first half hour team had recovered one dead body. After removing the dead body, team used search camera which yielded result and they found a body lying ten feet ahead of rescuers.

After stopping rescue operation rescuers used hailing method to ascertain the status of victim and the victim responded by crying. Team immediately started breaching the brick/concrete wall and two team members crawled inside the ground floor to rescue a live victim who was a ten year old boy. After handing over the child to the EMS team they found three more dead bodies lying inside and started operation to recover more victims, using chipping hammer, angle cutter and crowbar. Meanwhile the stand by group was also pressed into service on the left quadrant of the building which found one live victim tapped under the beam of the first floor. The standby group started operation to rescue trapped persons. They cut the floor of 2nd floor and got access to the trapped victim.

At the same time the rest group was also pressed into service at the "C" Quadrant which found 3 dead bodies and recovered them after breaching the RCC

beam. Decision was taken to extricate the second live victim from the building by amputating his right arm and right leg by a team of doctors from Bellary Hospital. Finally he was extricated at 2000 hrs and shifted to hospital. All rescue teams were given break at 0030 hrs

**(ii) On 28th January 2010**

A sketch of the building was prepared by the team commander after interviewing one of the rescued victims, which showed the approximate location of the trapped victims inside the collapsed building. At 0200 hrs with the help of excavators the adjacent hostel building which stood on the left side was demolished and space was created to launch precise rescue operation from the left side of the building ("A" Quadrant) at 0300 hrs. The hostel building was completely demolished and subsequently two groups started the rescue operation. After breaching the brick/RCC wall, with the help of search camera, the team found 4 live victims trapped in the debris ie. Ground floor. After working hard for nearly one hour all four live victims were successfully evacuated from the building and handed over to EMS. During the day 3 more dead bodies were recovered from the front side of the building. A vertical approach was made on the "C" quadrant of the building by cutting the floor from the 3rd floor. Even though the team managed to reach the ground

floor and recovered house hold items from the ground floor they were unable to proceed further to left or right due the pan cake pattern of collapsed. (The distance between two floors ie the floor of the first floor and ground floor was less than one feet). However tracker dogs confirmed that the bodies were lying very close to the path of approach. Two groups were kept on night surveillance and rest were given a break for the night.

**(iii) On 29th January 2010:-**

Decision was taken to bring in Combi-cutter for systematic demolition of the building meanwhile. All the 3 groups were pressed in service. One more vertical approach was made on the "D" Quadrant but with out any success (as the situation was similar to that of first vertical approach).

**(iv) On 29th January 2010:-**

Under the supervision of NDRF team, Combi-cutter started the demolition of the building from the left side of "B" Quadrant.

During the day 8 dead bodies were recovered from the portion.

**(v) On 31st January 2010:-**

"B" Quadrant was completely demolished and 3 more dead bodies were recovered from the building.

**(vi) On 1st February 2010**

“A” Quadrant was also demolished and 2 more dead bodies were recovered during the day. The team found one more dead body at 1830 hrs and started to extricate the body. The team commander who was performing the duty of safety officer has noticed dust coming out of the building along with minor tilting of one loose concrete portion. The area was immediately evacuated and the Combi cutter was called in. As soon as the Combi cutter started operation, the entire building came crashing towards the left side. Timely decision to evacuate the team proved to be a right one. Under supervision of NDRF team the machine worked through out the night in removing the rubble.

**(vii) On 2nd February 2010**

While removing the rubble the team found one more dead body.

**(viii) On 3rd February 2010**

Machine continued the work under supervision of NDRF team very carefully. After removing each concrete Slab/ Column/ Beam the team used to check the area to ensure that no body is buried in the rubble. At 1140 hrs while removing a concrete slab, the team found a void space and stopped the machine. Further checking the void places with the search camera they saw a person lying. On hailing the person responded and the team manually

removed the rubble/ debris and rescued the victim who has been lying inside the collapsed building for the last 09 days.

Method of systematic checking and careful rubble removal under the supervision of NDRF team has saved a valuable life. Encouraged with the success the team very closely supervised the demolition of the last ie.”C” Quadrant. During the day they recovered 2 more dead bodies. The entire operation was completed at 2330 hrs on the day. The team left for Pune at 1040 hrs on 04/02/10.

**VICTIMS**

During the operation 20 live victims were extricated and 27 dead bodies were recovered.

**INCIDENT COMMAND**

Following personnel in addition to district collector had supervised the whole operation.

- |   |           |
|---|-----------|
| 1. Revenue Minister                                     | Karnataka |
| 2. Tourism Minister                                     | Karnataka |
| 3. MLA & Mayor  | Bellary   |
| 4. DG, Fire Service                                     |           |
| 5. ADG, Law and order                                   |           |
| 6. IG, Law and order                                    |           |
| 7. Secretary, Disaster Management & SDMA representative |           |

### **POSITIVE POINTS**

- Good planning and optimum use of man power
- 24X7 continuous work
- Systematic approach instead of rushing in
- State of the art equipments
- High morale and good training
- Good coordination with sister agencies at planning as well execution level

### **MAIN HURDLES FACED**

- Unstable structure and sidewalls.
- Access difficulty in right part ( C&D quadrant)
- Heavy load of rubbles.

- Confined space ranging from ½ ft to just 2 ft height, inside the building.
- Decaying dead bodies.
- Protruding steel bars.
- Disaster tourism

### **LOCAL RESPONSE**

Chief Minister himself visited the site and appreciated the NDRF personnel. Local media and TV channels have highlighted the role of NDRF personnel during the entire operation. Local NGOs distributed thanks giving cards to NDRF personnel.

### **QUOTE OF THE INCIDENT**

On the day of departure all personnel were facilitated by the District administration as well as by the local public. In the words of local MLA **“NDRF IS NOT JUST GOOD, BUT IT IS GOD”**.

## SLS - 4

### Case Study

## Bomb Blast at Paharganj: A Case Study of Hospital Response

### **a. Presentation of incident:**

On the eve of Dewali Festival and at around 5:45 p.m. on Saturday, 29th February '2005, the Paharganj area of the capital city of the country, New Delhi was the target of a series of bomb blasts. There were three explosions in close succession within a short span of 30 minutes. And this resulted in 62 deaths, more than 200 injured, pushing the city into a State of great tragedy and trauma. The impact was intense as it occurred in very crowded areas. The television screen in the control room of the hospital administration, barely 10kms from the blast sites flashed the incident. Soon after the hospital authorities alerted the accident and emergency department about possibility of receiving injured victims. At 5:49 p.m. the Police Control Room at the hospital also alerted the Hospital Administration about the same incident. Minutes after news of a second bomb blast inside a public transport bus at Govindpuri- about 7kms from the hospital was flashed in the TV screen, when the administrator on duty activated the disaster Management Plan of the hospital. A few minutes later

news of a 3rd bomb blast in Sarojini Nagar market area, 3kms from the hospital was flashed. The hospital quickly established an Incident Command Centre. The first victim arrived at the hospital at the 6:15 p.m. 75% of the injured were evacuated to four public hospitals and 68% of dead were taken to the designated public hospitals. This is a case report describing the management of Mass Causality Incident (MCI) with focus on pre-hospital care and definitive management of victims at one of the tertiary care hospitals. It focuses upon the arrival pattern of victims, mode of transportation, characteristics of victims who required admission, media management and crowd control.

### **b. Procedure:**

- i) After this presentation invite the trainees to seek any clarification or further information on the depicted incident. No solution based answers to be given; and
- ii) Ask the trainees how they would like the hospital to face this particular disaster, how they should handle the victims and manage the situation, handle routine admissions,

internal communication, resource mobilization, patient identification, coordination between Police and civil, agencies, hospital care and safety, media.

**c. Public information and management and ensuring normalcy in the hospital**

- i) After listing these questions, ask the trainees to go in sub-groups for 25 minutes, discuss and find out answers to the questions with reason;
- ii) Invite each group to present its answers in the plenary;
- iii) Hold a discussion on the various options and answers presented; and
- iv) Then inform the trainees how the incident and the challenges it threw up was actually handled by the hospital authorities.

**d. How the situation was actually handled?**

- i) After seeing the news in TV screen Hospital authorities alerted the Accident and Emergency Department about possibility of receiving injured victims and dead bodies;
- ii) Within 4 minutes of the incident, at 7:49 p.m. the Police Control Room in the hospital premises also alerted the hospital administration about

the same incident;

- iii) When the 2nd blast in Govindpuri was flashed on the TV screen, the administration on duty activated the Disaster Management Plan of the Hospital;
- iv) When the 3rd incident in Sarojini Nagar Market was flashed, the hospital quickly established an Incident Command Centre;
- v) The first victim arrived at 6:15 p.m. followed by others. Majority were brought by family members (43%) or bystanders (37%) and the rest (20%) by the Police;
- vi) More than half were brought within an hour of receiving the first victim and 40% after the 1st hour of receiving the victim;
- vii) None of the victims as brought to the hospital by CATS-Centralised Accident and Trauma Services;
- viii) Patients were triaged and resuscitated at the Emergency Department;
- ix) Patients personal information was collected by the Social Service Guides/hospital staff followed by formal registration and medico-legal formalities. However a few errors were there about name and address including duplication;
- x) 75% of admitted cases were females, majority required admission and treatment;

- xi) Within 30-40 minutes after the news flash, around 30 doctors, 15 nurses and 5 paramedical staffs reported to offer their services on their own initiative in addition to existing emergency staff on duty;
- xii) The high-response is attributed to the proximity of the hospital to the residential complex;
- xiii) The Medical and Surgical Store, Blood Bank, Medico-Social Service Unit and other departmental personnel reported to duty as per the Disaster Management Plan;
- xiv) The hospital security staff and police managed the crowd, the media and VIP visits;
- xv) All routine admissions in the hospital were stopped except emergency patients;
- xvi) Vacant beds were created to increase the surge capacity of the surgical wards by discharging elective, pre-operative cases and stable patients;
- xvii) All other patients requiring admission were initially accommodated in the observation and holding area, as per the Disaster Management Plan and later shifted to other wards;
- xviii) A total of 35 casualties due to bomb blast was registered. An overwhelming majority, 94% of the admitted victims, was managed conservatively and only 6% needed surgical intervention;
- xix) About half (49%) were categorized as "Walking Wounded" with minor injuries and were treated and discharged;
- xx) The list of blast victims was quickly displayed and regularly updated to satisfy anxious relatives of victims and general public, helping better crowd control;
- xxi) Following the incident 87 voluntary blood donations were received within just 12 hours;
- xxii) A day after the incident, normal hospital operations was restored. Average hospital stay of the victim was 3-4 days; and
- xxiii) Vigilant administration, written disaster management plans, setting up incident command centre, staff recall, external and internal communication, coordination between police, civil agencies and media management were responsible for effective management in this case.

*Source: Delhi Serial Bomb Blast: A Hospital's response DD vol-1, No-2(RT Anand, S. Satpathy, JP Prasad) pp-119-123, DD Vol-1, No-2 p-126-127*

## 8.2. Subject/Theme:

### Learning Basics of Disaster First Aid

#### PART-I

##### Introduction and Overview

During the first critical minutes and hours of an emergency caused by a disaster such as earthquake, cyclone, floods, fire or bomb blast, all normal rescue medical emergency services get overwhelmed. Immediate help would not be available to those who need it immediately. Additional help from outside may take hours or even days. Hence the disaster workers, volunteers and managers must know what to do in case there is delay in help. Many common yet fatal casualties may happen during this short period, like airway obstruction or disability of a person from breathing. Without oxygen the heart stops pumping blood within 90 to 120 seconds. In 10 to 12 minutes, irreversible brain damage begins. Many disaster victims die from situations like this even when their other bodily injuries are not serious enough to cause death.

The silver line is, it takes only two seconds to open the airway and save a life and with a little training, anyone can do this. Other common and curable causes are blood loss, shock, etc. Knowledge and skills of **Disaster First Aid** guides workers and volunteers to recognize the risks and take immediate steps to treat it. It also

eliminates the confusion and fear of error; helps take quick and correct action by using the **START Triage System**, the same used by fire-fighters and paramedics all over the world.

Disaster First Aid is focused and to the point, tells what to do first, what to do next and how to do it best. The exercise takes not more than a day.

#### Objectives

To save lives during and immediately after the disasters through using the simple and timely life saving skills i.e. **First Aid**.

#### Methods

Presentation, Experiential learning and practice sessions.

#### Materials/Learning Aids

- Case study – Knowledge of First Aid: Must for everyone; and
- First Aid equipment and tools

#### Duration

Four sessions (For details refer page no. 9).

#### Expected Learning Outcome

##### **Cognitive/knowledge Related:**

The trainee shall gather all theoretical knowledge on human body system and be able to identify the major problems to be tackled first, in case of emergency/accidents.

##### **Competency/Skill related:**

The trainee shall gather practical knowledge through practicing different life saving

skills and processes such as bandage, lifting, shifting, artificial respiration and CPR (Cardio Pulmonary Resuscitation), etc. which s(he) can detect easily and act promptly.

### Sub-themes/ Learning Points

- a) What is Disaster First Aid;
- b) What is Disaster Triage;
- c) Role and responsibility of a First-Aider;
- d) Principles of First Aid;
- e) D.R.A.B.C (Identify Danger, Response, Airways, Breathing and Blood Circulation);
- f) What is START Rapid triage;
- g) How to prioritize urgency of injuries;
- h) How to recognize/identify life-threatening signs and take corrective measures;
- i) How to anticipate and treat early-stage-shock and trauma;
- j) How to manage injuries, control blood loss;
- k) How to immobilize fractures, sprains and joint injuries;
- l) Managing poisoning, shock, browning, heat strokes, burns, etc.;
- m) How to connect with the disaster response network in the affected area;
- n) What should there be the Master Plan for the first 24 hours?;

- o) What are the techniques for safe lifting and moving the injured to safe places?;
- p) What to do to prevent infection after the rescue;
- q) How to protect yourself in this situation;
- r) Use of local available materials as substitutes for first aid tools; and
- s) Do's and Don'ts.

### Further Study/References

***National Disaster Management Guidelines - Medical Preparedness & Mass Casualty Management*** - National Disaster Management Authority 2007

### Note for the Facilitator

- a) Active hands-on practice is essential for this type of learning. By following first aid techniques together in groups, like the Head-to-Toe Exam, controlling bleeding, and splinting each other's "broken bones" students learn more skills than just the information;
- b) Performing the physical motions locks the knowledge into the neuro-motor pathways of the body;
- c) Note that even when the conscious mind forgets, the body remembers. In a crisis, as soon as the body starts moving, it knows what to do and the mind soon catches up; and
- d) Ensure complete internalisation of practice training.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Case Study

### Knowledge of First Aid – A Must for Everybody

#### *Lack of preparedness during the recent blast sites:*

Half an hour after the first blast in New Delhi on Saturday, September 13, 2008, the NDTV 24/7 telecast telling visuals that said it all. We just don't know how to handle the aftermath of the terror attacks or an accident.

Take, for example, the young woman in a yellow top and black trousers, hurt in the bombing of the Connaught Place's Central Park. She was shown being carried away, four persons holding a limb each to a police vehicle several yards away in Connaught Place. She was dripping blood, her head snapped back under its own weight and in agony.

No stretcher in sight, no ambulance within miles and crowds who should have scattered to safety and enable the police to do their job. Such victims are threatened with death less because of the injuries but more due to the way she was handled by well-meaning but perhaps ill trained people. It may actually be pushing up the

death toll and bolster the designs of the terrorists.

Cut to the train blasts in Mumbai on July 11, 2006. Scores of people, badly mauled, were seen being carried away in bed sheets thrown at the impromptu rescuers from homes along the railway tracks. Persons with a limb torn away were carted away in auto-rickshaws by good Samaritans, the ride being given free.

Speed, one accepts, is of the essence. But the means also has to be proper so that the good intent does not translate to death or further complications. All should know that there is something called the **Golden Hour** when best support is required, even before the person is reached to the hospital.

This kind of speedy but amateurish shift of the hurt, dying and the dead has been seen in every location especially where the terrorist struck by setting off explosions -- Hyderabad, Bangalore, Jaipur,

Ahmedabad and Delhi. This mishandling and the delays in being attended to on reaching the hospitals, perhaps, causes many of the several deaths. Or permanent damage to the body.

Why?

Because, we as a Nation, have just not got our act together. We must sensitise

ourselves and the people we know about how to save lives, so that, the precious lives get saved with proper First aid and then proper Medical aid.

Nobody else but sensitized and committed common masses of India will make the real difference.

*Source: Mahesh Vijapurkar, Rediff.com, September 14, 2008*

## SLS - 2

### Handout

## Right to Emergency Care, Supreme Court Ruling

Still today in a number of accident cases, the onlookers and passers by hesitate to help the victim because, most are scared of police hassles or hospital expenses. Here is the Supreme Court ruling of 2007 that has shifted the responsibility to the hospitals instead.



**भारतीय जीवन बीमा निगम**  
**Life Insurance Corporation of India**

रोहित पुन. धनानी  
सदस्य अधिकांशों के लिए अर्थात् क्लब  
**Rohit N. Dhanani**  
Member C. M.'s Club for Agents



### Right to Emergency Care

Date of Judgment : **23.02.2007**  
Case No. : **Appeal (civil) 919 of 2007**

The Supreme Court has ruled that all injured persons especially in the case of road traffic accidents, assaults, etc., when brought to a hospital / medical centre, have to be offered first aid, stabilized and shifted to a higher centre / government centre if required. It is only after this that the hospital can demand payment or complete police formalities. In case you a bystander and wish to help someone in an accident, please go ahead and do so. Your responsibility ends as soon as you leave the person at the hospital.

The hospital bears the responsibility of informing the police, first aid, etc.

Please do inform your family and friends about these basic rights so that we all know what to expect and what to do in the hour of need.

Please forward to as many as possible.....

Off. : 2, Nanda Deep, 26, Besant Road, Santacruz (W), Mumbai - 400 054. Tel. : 2615 4493  
Res. : Krishna Niwas, 24, Besant Road, Santacruz (W), Mumbai - 400 054. Tel. : 2504 0847

### 8.3. Subject/Theme:

#### Practical, Mock Drills, Exercises & Field Demonstration

##### PART-I

##### Introduction and Overview

In disaster preparedness training, mock drills/exercises and field demonstrations are crucial for effective search and rescue operations including first aid. Disaster training is **a process to keep the trainees in a State of preparedness under all circumstances**, and the efficacy of arrangements therein can be assessed only by **conducting periodical mock drills**. These also prevent possible dilution of skills caused by non-application, non-use. The district in charge of the Civil Defence setup under the District Magistrate should ensure that the respective warden ensure the conduct of mock exercises.

The methods for conducting a mock-drill vary according to the **nature of the disaster** as well as the characteristics of potential hazards, **response system of the institution** and the **target community**. Therefore, to ensure proper implementation of a mock drill / field demonstration programme, roles and responsibilities of the concerned personnel, departments, organizations, stakeholders, and mechanisms for conducting the drill should be outlined clearly. The concepts of

the **Incident Response System** should be discussed and put into practice.

##### Objectives

- a) To assess the preparedness of DM system including detailed planning and keeping of all equipment in good condition;
- b) To integrate the operational response to measure overall performance of the drill/exercise;
- c) To measure performance and overall capabilities with regard to disaster response; and
- d) To prevent skill dilution.

##### Methods

Practical, simulation games, field demonstration.

##### Materials/Learning Aids

Ropes, ladder, sticks, wooden planks, blankets, tubes, tins, bottles, buckets, pipes, first aid materials, etc.

##### Duration

Eight sessions (For details refer page no. 9).

##### Expected learning outcome

##### **Cognitive/Knowledge related:**

After participating in the mock drill trainees are expected to have full and complete knowledge about the particular drill and its processes.

**Competency/Skill related:**

Enhanced capacity to conduct similar drills as Master Trainers.

**Sub-themes/Learning points**

- a) The use of mock drills as a method of practical training in disaster management;
- b) Various types of mock drills for search, rescue and first aid operations;
- c) How to prepare and conduct various types of mock drills for different emergency situations; and
- d) Understanding the skills of using mock drill equipments.

**Activity**

Practical exercises guided by an expert.

**Do's and Don'ts, guidelines**

- a) The first mock drill should be conducted within 3 months of a volunteer joining Civil Defence;
- b) The second mock drill should be conducted 3 months after the first one, in order to correct all shortcomings noticed during the first mock drill;
- c) Thereafter, mock drills shall be conducted once every 2 years to

prevent dilution of the acquired skills;

- d) It should be conducted during the day time;
- e) All safety measures should be undertaken to prevent injury to the participants and interference in the regular traffic; and
- f) The trainees participating in a mock drill should be physically and mentally fit.

**Supplementary learning Support Materials**

Refer 'Search & Rescue' section.

**Further Study/References**

[www.ncr.railnet.gov.in/disaster/jhs/training\\_and\\_mock\\_drill.htm](http://www.ncr.railnet.gov.in/disaster/jhs/training_and_mock_drill.htm)  
[cuddalore.nic.in/drmp/mockdrill.htm](http://cuddalore.nic.in/drmp/mockdrill.htm),  
[www.ndma.in/irs](http://www.ndma.in/irs) (irs guidelines)

**Note to the Facilitator**

- a) The trainer/facilitator should explain the possible risks in a mock drill and ways to overcome it; and
- b) Ensure that the learning of the skills of a drill is complete and the trainee could repeat it with confidence in a similar or simulated situation.

## PART-II: Supplementary Learning Support Materials

SLS - 1

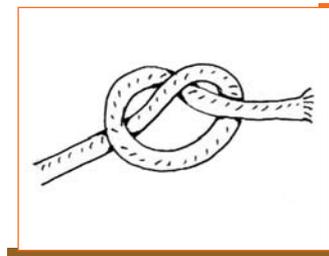
### Visuals

### Use of Ropes, Knots and Lashings

#### 1. **KNOTS:**

##### **Thumb Knot:**

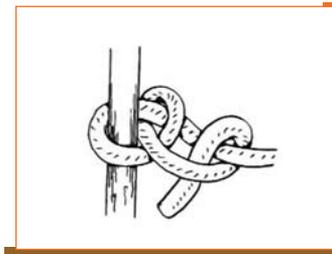
Prevents a rope from being opened.



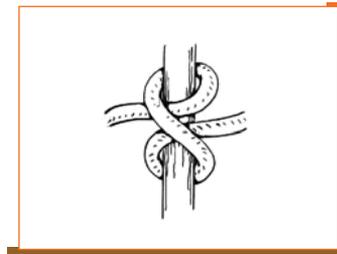
##### **Half Hitch:**



##### **Double Half Hitch:**

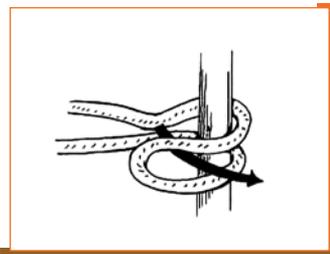


##### **Clove Hitch:**

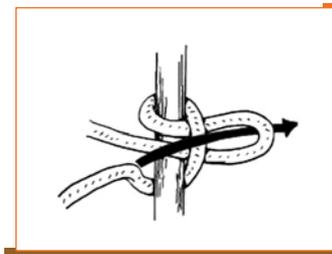


To pull the object tightly to prevent it from being slipped away.

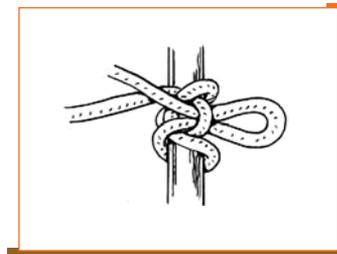
##### **Draw Hitch:**



Step 1



Step 2

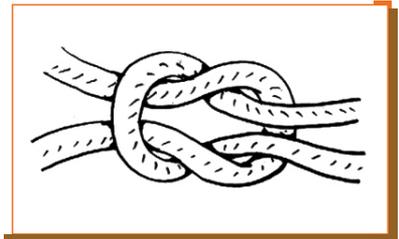


Step 3

For self-rescue and then to recover the rope very easily

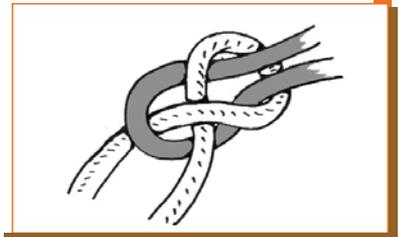
**Reef Knot:**

To join two dry ropes of equal thickness and same materials.



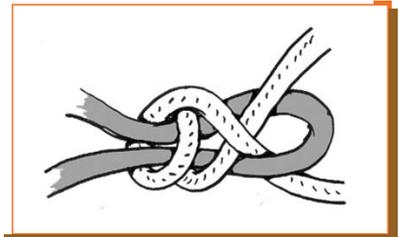
**Single Sheet-Bend:**

To join two dry/wet ropes of unequal thickness.

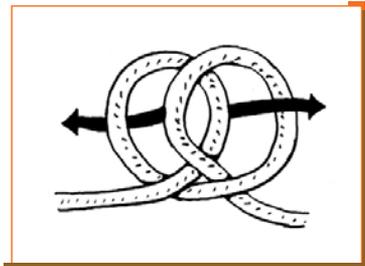


**Double Sheet-Bend:**

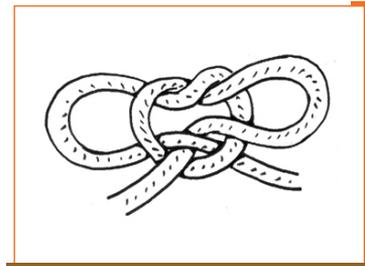
To join two ropes of different materials and with great difference in size.



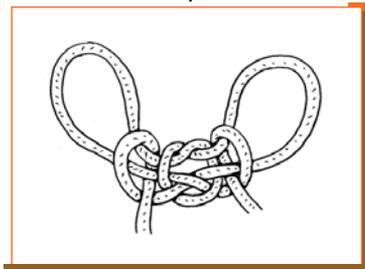
**Chair Knot:**



Step 1



Step 2



Step 3



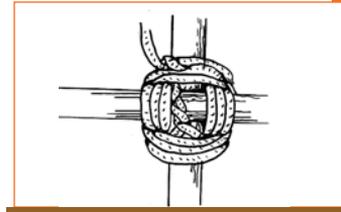
Step 4

Used as a sling for rescue when a person may be lowered from a height and then to recover the rope very easily.

## 2. LASHINGS

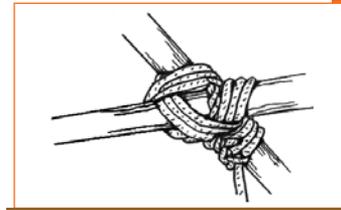
### Square Lashing:

Used for lashing together two poles that touch and cross at right angles.



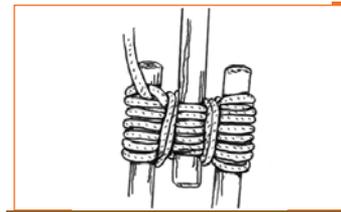
### Diagonal Lashing:

Used for lashing together two poles that touch and cross at an angle and the poles are likely to spring apart when put under load or strain.



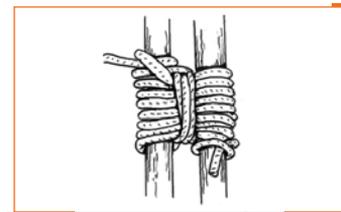
### Figure of Eight Lashings:

For lashing three poles together to form a tripod.



### Round Lashing:

For lashing two poles together when they are parallel to each other to form a sheer leg.



## Rescue Techniques

### 1. SINGLE RESCUE

#### Human Crutch:

Casualty is in a position to help themselves.



**Pick-a-back:**

Casualty is conscious without any injury but unable to walk.



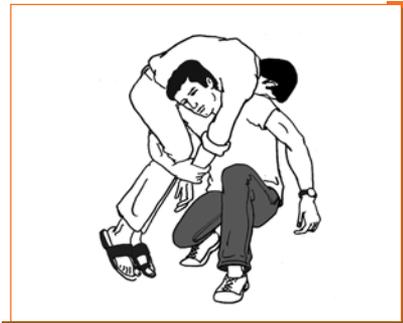
**Pick-a-back (Reverse)  
(The rescuer and the casualty stand back-to-back):**

Casualty is conscious but unable to walk for an injury such as burn on the belly or chest, a wound on the neck, or face or any upper body parts.



**Fireman's Lift:**

When the casualty is unconscious but without any injury



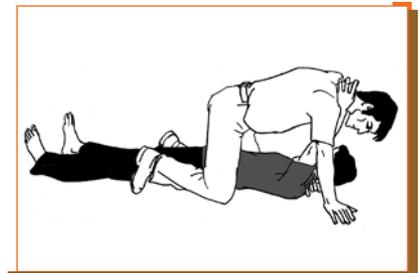
Step1



Step 2

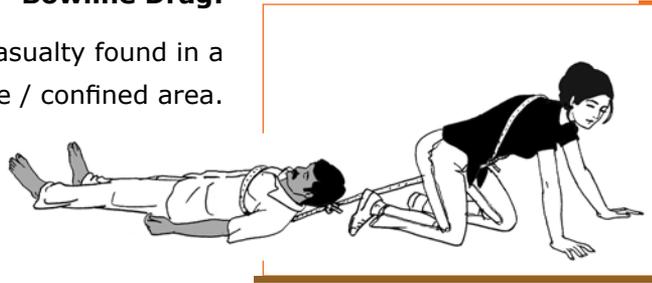
**Rescue Crawl:**

Casualty is unconscious, too heavy or found in a smoke filled room, or in a confined place limiting movement.



**Bowline Drag:**

Casualty found in a narrow space / confined area.



**Toe Drag:**

Casualty found in a narrow space / confined area where the rescuer finds difficulty to enter.



**2. MULTIPLE RESCUE**

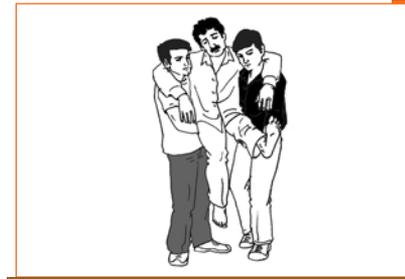
**Two-Handed Seat:**

casualty is conscious but unable to walk



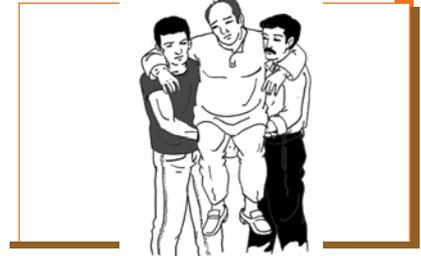
**Three-Handed Seat:**

Casualty is conscious, heavy and / or has bleeding or injury to one of the legs



**Four-Handed Seat:**

Casualty is heavy but without any injury.



**Fore and After Method:**

Casualty has an injury in the abdomen and is unable to move



**Blanket Lift:**

Casualty is found in a grave condition and need to be shifted in flat condition, but the rescuers do not have a stretcher to carry the casualty.

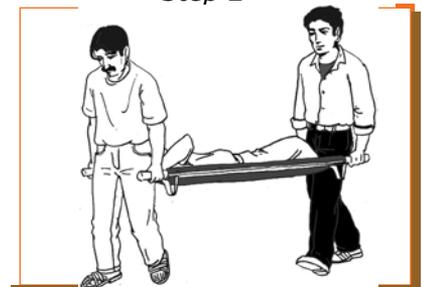


Step 1



Step 2

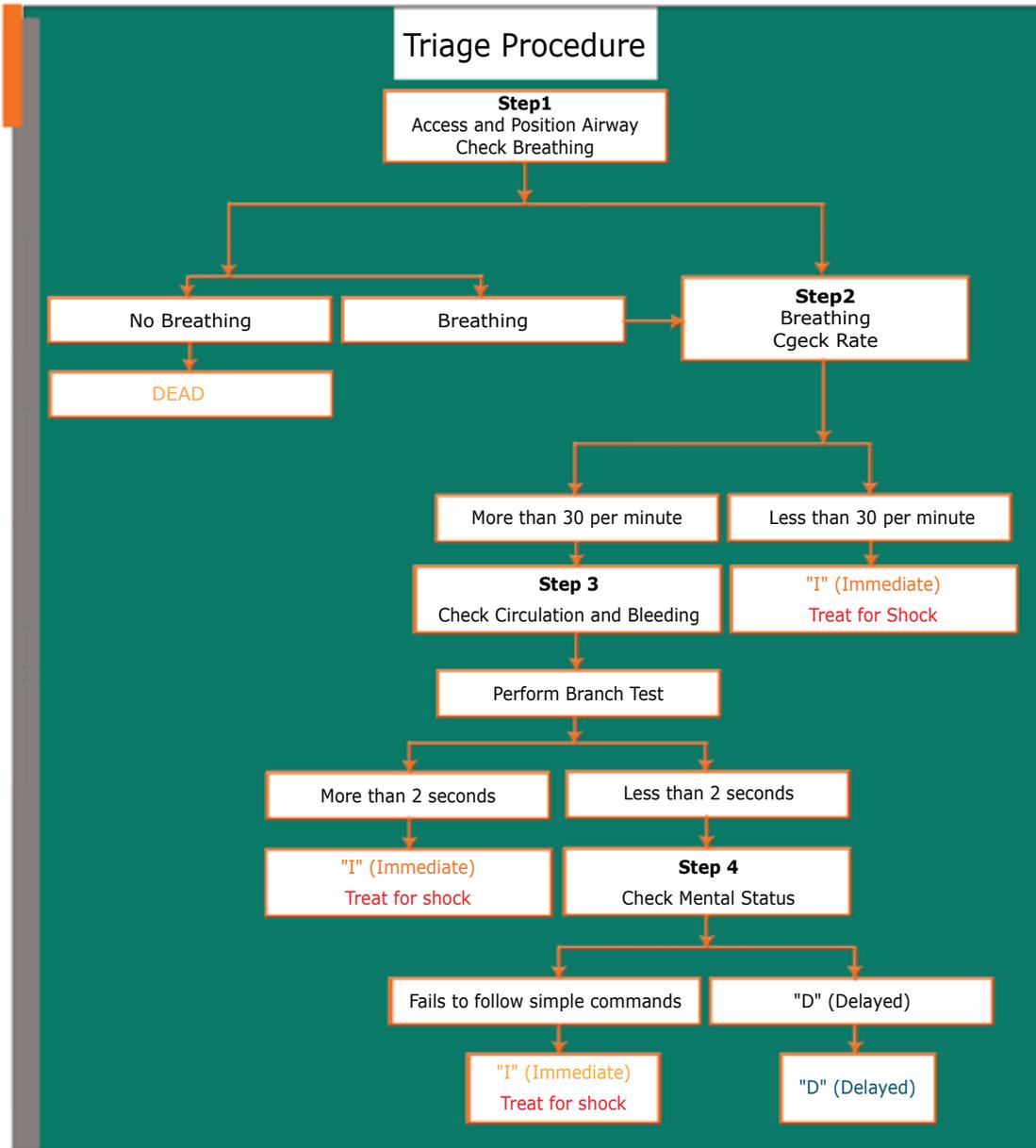
**Standard Ambulance Stretcher:**



SLS - 3

Diagram

Triage Procedure in First Aid



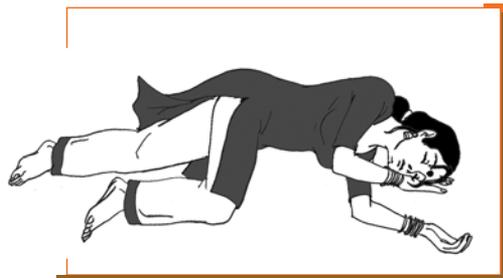
SLS - 4

Visuals on First Aid

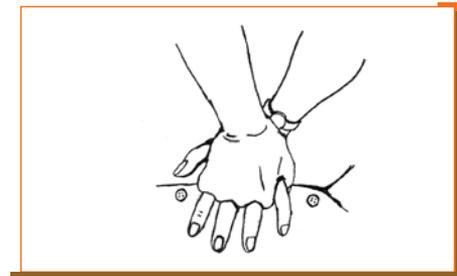
**Moving a patient with a suspected closed head, neck & spinal injury:**



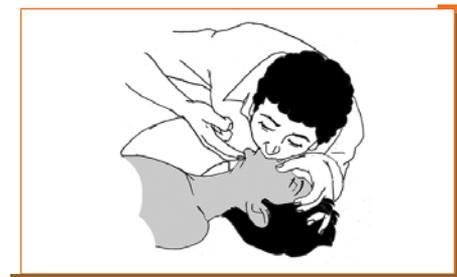
**Recovery Position:**



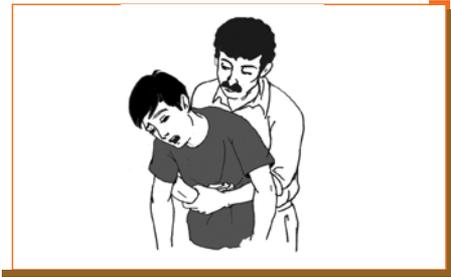
**Abdominal Thrust:**



**Artificial Ventilation:**



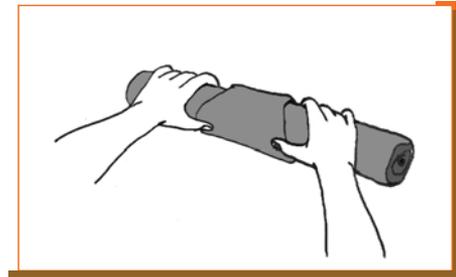
### Methods to Unblock Airways:



### Immobilisation of Neck:



Step 1



Step 2



Step 3



Step 4

### Bandaging Procedure:



Step 1



Step 2



Step 3

**Fractures:**

**Upper arm**



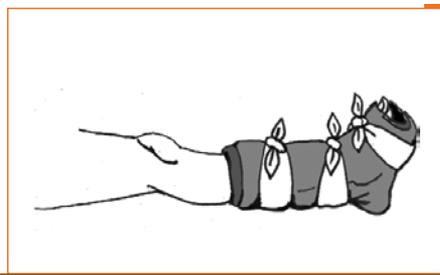
**Lower arm**



**Upper leg**



**Lower leg**



**Turning Drowning Casualties:**



*Step 1*



*Step 2*



*Step 3*



*Step 4*

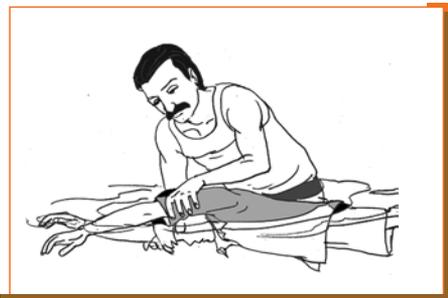
### Turning Drowning Casualties (2):



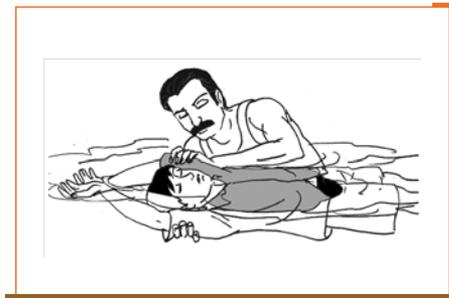
Step 1



Step 2



Step 3

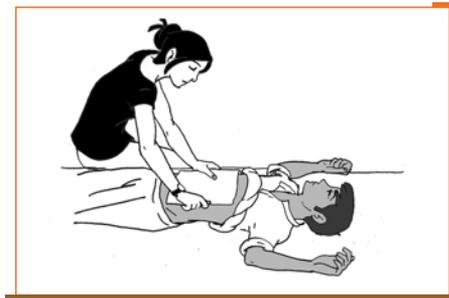


Step 4

### Methods of cooling burn:



Step 1



Step 2

Adapted primarily from '**Hand book of Community Based Search and Rescue**' by Indian Red Cross Society, Odisha State Branch, 2003. Illustrations: Pradeep Nayak

# Section 8

# Section 9

## Understanding Civil Defence Organisation

### **Content**

- 9.1. Civil Defence and Disaster Management – A New Perspective 173

### **Supplementary Learning Support materials**

#### ***Slide***

- ★ The India Civil Defence Act, *p176*
- ★ CD and its new role in DM, *p178*
- ★ CD Key Activities, *p180*
- ★ Existing CD Services, *p181*

# Section 9

## 9.1. Subject/Theme:

### **Civil Defence and Disaster Management – A New Perspective**

#### PART-I: Subject/Theme

##### Introduction and Module Overview

The Civil Defence Policy of the Government of India, till the declaration of emergency in 1962 remained confined to making the States and UTs conscious of the need for Civil protection measures and to ask them to keep ready civil protection plans for major cities and towns under the Emergency Relief Organisation (ERO) scheme. However, following the Chinese aggression in 1962 and the Indo-Pak conflict of 1965, there was considerable rethinking about the policy and scope of civil defence which culminated in the enactment of the Civil Defence Act, 1968. Since then the organisation has functioned under the parameters delineated in the Act as a community based voluntary organisation. It was mainly confined to war time activities.

However, over the years, with threats of war receding, Civil Defence was gradually losing significance. Realising that Civil Defence is a community based organisation and the communities are always the first responders in all events of disaster, the govt. later added the role of disaster management also and even the Civil Defence Act has been amended accordingly. In addition to rescue, relief and rehabilitation work, it has been working to promote public awareness and community capacity building to enable people face disaster situations with better knowledge and skills. The National Civil Defence College has been playing a pioneering role in capacity building of CD personnel/CD Volunteers. A National Policy approach paper on revamping of civil defence in the country submitted by Sri K. M. Singh, Member, NDMA, highlights the new challenges for this volunteer based organization

However, over the years and with threats of war receding, Civil Defence has been engaging itself in fighting natural and human induced disasters and emergencies.

It has now emerged as a community based voluntary organisation. In addition to rescue, relief and rehabilitation work, it has been working to promote public awareness and community capacity building to enable people face disaster situations with better knowledge and skills. The National Civil Defence College has been playing a pioneering role in capacity building of CD personnel/CD Volunteers. The National Policy approach paper on revamping of civil defence in the country submitted also highlights the new challenges for this volunteer based organization.

### **Objective**

To help newly enrolled CD volunteers and functionaries of other volunteer-based organisations understand the Civil Defence Organisation, its structure, new roles and ways of working.

### **Methods**

Lecture – cum - discussion

### **Materials/Learning Aids**

OHP, Flip chart, LCD, Pictures, Organogram of CD, Videos

### **Duration**

One session (For details refer page no. 9).

### **Expected learning outcome**

#### ***Cognitive/Knowledge related:***

- a) Trainees have better understanding of CD organisations, their role, duties, structure and functions.

#### ***Skill/Competency related***

- a) Trainees are able to identify the capacity of CD, its strengths, limitations and how it could be used more effectively in disaster preparedness.

### **Sub-themes/Learning points**

- a) Civil Defence – genesis & context. present status;
- b) Civil Defence and Disaster Management – A new perspective;
- c) Organization, structure, functions, gray areas;
- d) New roles & Challenges envisaged for CD - Roles and Responsibilities;
- e) New Challenges before a CD Volunteer after reorganization of CD services;
- f) Public awareness, Community capacity building and training;
- g) Restructuring the CD services;
- h) CD awareness in Educational Institutions;

- i) Civil Defence vis-a-vis Home Guards, and other volunteer organizations;
- j) Networking, alliance building, convergence and integration issues;
- k) Synergizing efforts and resources;
- b) NIDM and NCDC Journals; and
- c) MHA Annual Reports.

#### Note for the Facilitator

#### Activity

Question – answer, clarifications through participatory discussion

#### Supplementary Learning Support Materials

- a) Handouts on Civil Defence; and
- b) Slide on CD organisational Chart.

#### Further Study/References

- a) High Power Committee Recommendations;

- a) **Note** that this session is aimed at those who have **very little knowledge** on CD;
- b) This session should be skipped when considered not necessary, i.e., for senior CD personnel and experienced volunteers;
- c) Distribute the handouts and use the 2nd half of the session in question-answer to clarify points.



## PART-II: Supplementary Learning Support Materials

### SLS - 1

Slide

#### The India Civil Defence Act Some Salient Features

- a) Enacted by parliament in 1968 and amended afterwards, the CD Act extends to the whole of India
- b) In the Act Civil Defence includes any measures (except the actual combat) for affording protection to any person, property, place or thing in India or any part of its territory during any hostile attack.
- c) In the Act Civil Defence includes any measures (except the actual combat) for affording protection to any person, property, place or thing in India or any part of its territory.

#### The India Civil Defence Act (Contd...) Some Salient Features

- d) The Act empowers the central government to make rules for Civil Defence for prevention of danger to life and property, for disposal of explosives, inflammable substances or articles, arms and ammunition. etc.
- e) The Civil Defence Act has been amended giving legal directions for involvement of Civil Defence in the disaster management role;
- f) To work for salvage of damaged buildings, structures, property, disposal of the dead, etc.;
- g) To ensure safety of ports, railways, roads, bridges and canals, sources of water, electricity supply, mines, oil fields, factories, laboratories doing scientific and technical research;

## The India Civil Defence Act (Contd...)

### Some Salient Features

- h) To take special measures for dealing with outbreaks of fire;
- i) Requiring any person or class of persons to comply with any sphere of civil defence;
- j) To constitute Civil Defence Corps as per this Act.
- k) State Governments may, for the purpose of coordinating the CD activities, appoint Director of Civil Defence for their own States.
- l) The Central Govt. may, by notification make regulation for carrying out CD activities, prescribe functions for the members of the CD Corps, regulate the organisation, appointment, conditions of service, discipline and accountability.

## The India Civil Defence Act (Contd...)

### Some Salient Features

- m) It may prescribe form of certificate of membership of any or all of the Corps.
- n) Provision of personal injury Act, 1962 and every scheme made there under shall apply to every personal injury sustained by any person appointed to be a member of the Corps.
- o) No order made in exercise of any power conferred by or under this Act shall be called in question in any court.
- p) The State government may, by notification, direct that all or any of the powers in the Act be exercised also by such officer, not inferior in rank to a Sub-Divisional Magistrate.
- q) Any person authorised by the Controller or the State Government under this Act and every member of the Corps, while functioning as such shall be treated as a public servant within the meaning of Section 21 of the Indian Penal Code.

**SLS - 2**

*Slide*

## Civil Defence and its new role in Disaster Management

In addition to its existing charter, the following roles and functions have now been added to the Civil Defence organisations in respect of disaster management:

**Pre-Disaster Phase:**

- a) Spreading public awareness about various kinds of disaster and possible community responses
- b) Educating and training people at the grassroots level in vulnerable areas as a part of community capacity building to respond to any disaster situation
- c) Liaison with media to conduct discussions, debate, etc. on Civil Defence

## Civil Defence and its new role in Disaster Management (Contd...)

- d) Holding regular mock-drills, exercise and rehearsals
- e) Holding camps for students to provide basic training in skills of disaster management
- f) Identifying suitable personnel in the government machineries and sensitizing them on the issues
- g) Involving staff of self-governing and public sector undertakings in disaster training
- h) Setting up training facilities at district, State and regional level
- i) Acquire skills on various aspects of disaster management
- j) Motivating others to volunteer for Civil Defence Work on a part-time basis

## Civil Defence and its new role in Disaster Management

### During Disaster:

- a) Assisting in taking precautionary measures whenever any advance warning is received about any natural disaster
- b) Helping in evacuation of population to less vulnerable areas
- c) Launching search and rescue operations
- d) Providing first-aid to injured and transporting them to medical centers
- e) Setting up "information and guidance centers" for missing persons
- f) Participating in distribution of relief materials to affected people
- g) Assisting Police/Traffic in ensuring smooth movement of emergency vehicles in the affected areas
- h) Helping the local administration in assessing the extent of loss to life and property



**SLS - 3**

*Slide*

## Civil Defence Key Activities

### Preparedness phase

- a) Training;
- b) Mock drills;
- c) Exercises;
- d) Contingency planning;
- e) Public awareness;
- f) Welfare; and
- g) services Communication.

### Response phase

- a) Medical/First aid service;
- b) Command and Control; and
- c) Search and Rescue.



## SLS - 4

Slide

### Existing Civil Defence Services

The High power committee has recommended the following services for the Civil Defence organisation:

- a) **Headquarter and communication Service**
- b) **Warden Service**
- c) **Casualty Service**
- d) **Fire-Fighting Service**
- e) **Training Service**
- f) **Rescue and salvage Service**
- g) **Welfare Service**
- h) **Public awareness**
- i) **Community capacity building**

*Source - Revamping of Civil Defence in the Country, National policy Approach Paper, HPC Report, December 2006, K.M. Singh, Member NDMA, GOI*



# Section 10

## Initiatives, Approaches and Strategies

### Content

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## Supplementary Learning Support materials

### **Handouts**

- ★ Principles of Humanitarian Charter, *p187*
- ★ Roles and Responsibilities of Humanitarian Agencies, *p188*
- ★ IRS Design Criteria, *p194*
- ★ Understanding Animal/bird/insect Behaviours for Hazard Early-warning, *p199*
- ★ Disaster Assessment, *p203*
- ★ 'What' and 'How' to Write a Disaster Related Report, *p205*

### **Slides**

- ★ Minimum Standards of Humanitarian Relief, *p190*
- ★ Problem Areas in the Traditional Approach of Response, *p195*
- ★ Planning Responsibilities in IRS, *p195*
- ★ Integrating Technology for Disaster Risk Reduction, *p198*

## 10.1. Subject/Theme:

### Humanitarian Charter & Minimum Standard of Disaster Response

#### PART-I

#### Introduction and Overview

In disaster situations we often tend to either forget or ignore certain minimum standards. We discuss here certain standards developed by '**Sphere**' to correct our response. Drawing on international law and launched in 1997, **Sphere** is an international initiative aimed at improving the effectiveness and accountability of humanitarian assistance. Four thousand people from 50 countries, twenty international and 400 local non-governmental Organisations were involved in developing this Humanitarian Charter and Minimum standards of Disaster Response along with indicators and guidance notes. The **Sphere Handbook** has since been revised in 2004 which now includes food security standards. This initiative has now become an important influence on the practice of emergency relief in a wide variety of disaster settings.

The Sphere includes minimum standard for:

- a) Water, sanitation and hygiene promotion;
- b) Food security, nutrition and food aid;
- c) Shelter, settlement and non-food items and Health services; and
- d) Aid worker competencies and responsibilities.

Sphere also emphasizes cross-cutting issues and the need to protect livelihood assets, livestock, protection of primary production assets, access to markets, water for livestock, and building on existing coping mechanism.

#### Objectives

- a) To take appropriate steps in order to alleviate human suffering arising out of disaster;
- b) To promote quality, transparency and accountability in humanitarian assistance during a disaster; and
- c) To respect the principles of right to life with dignity and therefore a right to assistance.

### Methods

Panel discussion, brain storming, Slide show, Presentation, Case study, and Quiz.

### Duration

One Session (For details refer page no. 9).

### Learning aids

Handouts, slides, CDs on Humanitarian Charter & Minimum Standard (The Sphere Project)

### Expected learning outcome

#### **Cognitive/knowledge related:**

- a) Full understanding of the various aspects of the Humanitarian Charter, principles and key features of minimum standards and their importance

#### **Competency/Skill related:**

- a) Change of attitude and behaviour among the Aid-workers about the quality of humanitarian assistance;
- b) Ability to ensure implementation of humanitarian charter during disaster; and
- c) Advocacy to promote accountability and minimum standards as integral to disaster response.

### Sub-themes / Key Learning Points/ Issues

- a) What is Humanitarian Charter;

- b) Principles of Humanitarian Charter;
- c) Salient features of Minimum Standard; and
- d) Importance of standards common to all sectors.

### Supplementary learning Support Material

SDRF Guidelines

Sphere Handbook' 2004

### Further study/ reference

- a) **Sphere project:** *The Humanitarian Charter and Minimum Standards* [www.blackwell-synergy.com](http://www.blackwell-synergy.com)
- b) **The Sphere Handbook,** [www.sphereproject.org](http://www.sphereproject.org)
- c) **info@sphereproject.org** Web: <http://www.sphereproject.org>

### Note for the Facilitator

- a) This is basically a thematic session;
- b) Ensure that the participants understand the concept of Humanitarian charter;
- c) Take sufficient time to enable the participants to contextualise the need of the charter and minimum standard in disaster situation;
- d) Distribute handouts on the principles and key features of humanitarian charter; and
- e) Ensure that trainees are confident of maintaining the quality of service in disaster situation.

## PART-II: Supplementary Learning Support Materials

### SLS – 1

#### Handout

### Principles of Humanitarian Charter

Following are three basic principles of the charter.

#### I. The right to life with dignity

- a) This right is reflected in the legal measures concerning the right to life, to an adequate standard of living and to freedom from cruel, inhuman or degrading treatment or punishment;
- b) We understand an individual's right to life to entail the right to have steps taken to preserve life where it is threatened, and a corresponding duty on others to take such steps;
- c) Implicit in this is the duty not to withhold or frustrate the provision of life-saving assistance; and
- d) In addition, international humanitarian law makes specific provision for assistance to civilian populations during conflict, obliging States and other parties to agree to the provision of humanitarian and impartial assistance when the civilian population lacks essential supplies.

#### II. The distinction between combatants and non-combatants

- a) This is the distinction which underpins the 1949 Geneva Conventions and their Additional Protocols of 1977;
- b) This fundamental principle has been increasingly eroded, as reflected in the enormously increased proportion of civilian casualties during the second half of the twentieth century;

## II. The distinction between combatants and non-combatants (Contd...)

- c) That internal conflict is often referred to as 'civil war' must not blind us to the need to distinguish between those actively engaged in hostilities, and civilians and others (including the sick, wounded and prisoners) who play no direct part; and
- d) Non-combatants are protected under international humanitarian law and are entitled to immunity from attack.

## III. The Principle of Non-refoulement

This is the principle that no refugee shall be sent (back) to a country in which his or her life or freedom could be threatened on account of race, religion, nationality, membership of a particular social group or political opinion; or where there are substantial grounds for believing that s/he would be in danger of being subjected to torture.

*Source: Humanitarian Charter and Minimum Standards, the Sphere Project, 2004 Geneva 19, Switzerland*

### SLS - 2

#### Handout

#### **Roles and Responsibilities of Humanitarian Agencies**

- a) International law recognises that those affected are entitled to protection and assistance. It defines legal obligations on States or warring parties to provide such assistance

or to allow it to be provided, as well as to prevent and refrain from behaviour that violates fundamental human rights. These rights and obligations are contained in the body of international human rights law, international humanitarian law and refugee law;

- b) As humanitarian agencies, they define its role in relation to these primary roles and responsibilities. Their role in providing humanitarian assistance reflects the reality that those with primary responsibility are not always able or willing to perform this role themselves. This is sometimes a matter of capacity. Sometimes it constitutes a wilful disregard of fundamental legal and ethical obligations, the result of which is much avoidable human suffering;
- c) The frequent failure of warring parties to respect the humanitarian purpose of interventions has shown that the attempt to provide assistance in situations of conflict may potentially render civilians more vulnerable to attack, or may on occasions bring unintended advantage to one or more of the warring parties. They are committed to minimising any such adverse effects of our interventions in so far as this is consistent with the obligations outlined above. It is the obligation of warring parties to respect the humanitarian nature of such interventions; and
- d) In relation to the principles set out above and more generally, they recognise and support the protection and assistance mandates of the International Committee of the Red Cross and of the United Nations High Commissioner for Refugees under international law.

*Source- Humanitarian Charter and Minimum Standards, The Sphere Project, 2004 Geneva 19, Switzerland*

## SLS - 3

Slide

### Minimum Standards of Humanitarian Relief

There are basically eight core process and people standards that are relevant to each of the technical sectors. The standards are:

- a) **Participation**
- b) **Initial assessment**
- c) **Response**
- d) **Targeting**
- e) **Monitoring**
- f) **Evaluation**
- g) **Aid worker competencies and responsibilities**
- h) **Supervision, management and support of personnel**

Source- *Humanitarian Charter and Minimum Standards, The Sphere Project, 2004, Geneva 19, Switzerland*

## 10.2. Subject/Theme:

### **Incident Response System (IRS) for Management of Disaster Response**

#### **PART-I: Subject/Theme**

##### Introduction and Overview

The Incident Response System (IRS) is an effective mechanism to reduce scope for adhoc measures in response. It incorporates all the duties that may need to be performed in managing disasters or event of any kind or scale. It envisages a comprehensive team for disaster management with four principal functions:

- a) Command;**
- b) Operation;**
- c) Planning; and**
- d) Logistics & Finance.**

There are proper guidelines on each of these functions and if put in place and people trained, everyone will know

**What all needs to be done?**

**Who will do it? and**

**Who is in Command?**

Because of sudden and adhoc arrangements that had to be made to manage disasters earlier a number of short coming were noticed:

- a) Lack of accountability;
- b) There was a lack of an orderly systematic planning process;
- c) There was unclear chain of command and supervision; and
- d) Communication was poor because of lack of a proper communication plan, inefficient use of available systems and use of conflicting codes and terminology.
- e) No predetermined method / system to effectively integrate inter agency requirements into the disaster management structures and planning process;
- f) Lack of coordination between the first responders and freelancing individuals / NGO's with specialized skills during the incidents; and
- g) Lack of use of common terminology for different resources resulting in improper requisitioning and improper resource mobilization etc.

***The IRS provides:***

- a) Well thought out pre designated role for each member of the response team;
- b) Systematic and complete planning process;
- c) Clear cut chain of Command;
- d) Proper and coordinated communication set up; and

- e) System of effectively integrating independent agencies into the planning and command structure without infringing on the independence of the concerned agencies.

It was in this background that the concept that originally developed in America as the Incident Command System, was suitably modified and adapted as IRS in India. Guidelines on IRS has been issued by the NDMA.

### **Objectives**

To familiarize the trainees about the principal features of the incident command system and how it operates.

### **Methods**

Lecture cum discussion, interactive group work, panel discussion, experience sharing, role play, mock exercises, field work  
Materials/Learning Aids: Handout, slides, reports, charts, other support materials

### **Duration**

Two sessions (For details refer page no. 9). One on subject understanding and the other, on mock exercises.

### **Expected Learning Outcome**

#### ***Cognitive/knowledge related:***

- a) Understanding primary features of the incident response system,

primary management function system, Organisational problem areas, weakness and limitations, ways of overcoming the challenges in a disaster situation.

#### ***Competency/skill related:***

- a) Ability to make use of/apply procedures of IRS including primary management functions, unity and chain of command, resource management, integrated communications and develop an incident action plan.

#### **Sub-themes/Key learning points/ Issues**

- a) What is Incident Response System (IRS);
- b) Primary IRS functions (command, operations, logistics, planning and finance/administration);
- c) Current flaws and inadequacies;
- d) IRS design criteria and guideline (multi-agency Organisation, terminology, operating procedure);
- e) Requirement of the design system;
- f) Management concept and system characteristics (agency autonomy, management by objectives, unit integrity, functional clarity);
- g) Characteristics (effective span of control, modular Organisation);

- h) Organisational positions, resource, facilities, logistics; and
- i) Incident action planning process.

**Supplementary Learning Support Material**

Handouts and slides

**Note for the Facilitator**

- a) This session is highly technical in nature and hence needs repeated practice; and
- b) Develop and organize mock-drills to reinforce learning.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### IRS Design Criteria

The IRS design criteria address a set of guidelines that includes **multi-agency Organisation, terminology, operating procedures** and **communication integration**. There are seven requirements placed on the design of the system:

- a) It must provide for effective operations at three levels of incident character:
  - i) Single jurisdiction and/or single agency;
  - ii) Single jurisdiction with multiple agency support; and
  - iii) Multi-jurisdictional and/or multi-agency support.
- b) The Organisational structure must be adaptable to a wide variety of emergencies (i.e., fire, flood, earthquake, and rescue);
- c) It must be readily adaptable to new technologies that may become available to support emergency response and management;
- d) It must be able to expand from the Organisational requirements of simple, daily incidents up to the needs of a major emergency;
- e) It must have basic common elements in Organisation, terminology, and procedures;
- f) Implementation of the system should have the least possible disruption to existing agency procedures; and
- g) It must be simple enough to assure rapid proficiency of new users and to ensure low operational maintenance costs.

## SLS - 2

Slide

### Problem Areas in the Traditional Approach of Response

- a) Lack of a common organisation
- b) Poor on-scene and inter-agency communications
- c) Inadequate joint planning
- d) Lack of valid and timely intelligence
- e) Inadequate resource management
- f) Limited prediction capability

## SLS - 3

Slide

### Planning Responsibilities in IRS

- a) Maintaining accurate resource status
- b) Gathering and analyzing situation data
- c) Providing displays of situation status
- d) Estimating future probabilities
- e) Preparing alternative strategies
- f) Conducting planning meetings
- g) Compiling and distributing approved Action Plans

### 10.3. Subject/Theme:

## Early Warning Mechanism and Evacuation

### PART-I

#### Introduction and Overview

There is a popular saying that '**forewarned is forearmed**'. Effective early warning system has been instrumental in saving millions of lives from disasters by evacuating the vulnerable groups, moving livestock to safer places and mobilizing resources and emergency services. Early warning, in order to be successful, is dependant on three variables. These are:

- a) Ability to **identify a potential risk or likelihood of a hazardous phenomena threatening to a valuable population;**
- b) Ability to **identify accurately the vulnerability of the population to which a warning is to be directed; and**
- c) Ability that requires **considerable social and cultural awareness to take action to avert negative consequences.**

Before the warning it is **essential to hear and understand the content of the warning, confirm and crosscheck their interpretation** with others and **act or respond to the situation** to save lives

and property. Strategies for early warning of natural disasters may be those based on observations of conditions and events that are considered to be warning signs. The most common warning signs may be related to animal behaviour and to appearance of the sky (clouds, moon, sun, etc.)

#### Objectives

Equip trainees with traditional and modern warning systems and signs about possible occurrence of a disaster and how to use early warning to prevent loss of life, damages of property and destruction of environment.

#### Methods

Lecture-cum discussion, group work, simulation exercises, case studies

#### Materials/Learning Aids

Flip chart, OHP, video clips

#### Duration

Four sessions (For details refer page no. 9).

#### Expected learning outcome

##### **Cognitive/knowledge related:**

- a) Trainees gain better understanding of warning systems and signs and challenges of evacuation

**Competency/skill related:**

- a) Enhanced ability to use warning before an impending disaster and help evacuate population at risk

**Sub-themes/Key Learning points/ Issues**

- a) Need for early warning and evacuation;
- b) Identifying potential risk-prone areas and vulnerable population;
- c) Understanding the source and content of warning;
- d) Knowledge on traditional and modern warning signs;
- e) Preparedness for warning system and evacuation;
- f) Community level early warning system;
- g) Who does what and warns whom;
- h) Disseminating, receiving and verifying warning;
- i) Integrating technical interventions in disaster risk reduction: dissemination issues;
- j) Moving to safer places or shelter;
- k) Analyzing hazard and risk; and
- l) Preparing contingency plans.

**Activity**

Mock drills, Games

**Supplementary Learning Aids**

Handouts on traditional and modern warning signs, visuals on warning signals and evacuation, slides on Dos and Don'ts, slides on evacuation

**Further Study/References**

- a) ***Training of Trainers Hand Book for community based Disaster Management, IRCS***
- b) ***Community Based Disaster Preparedness, Red Cross, Bhubaneswar***
- c) ***A hand book of Concepts and Techniques, LIPISCAN SADC, Sunil Bhagwani***
- d) ***Disaster & Development, Vol-I, No.-2, pp.-111-117***

**Note for the Facilitator**

- a) This session should focus on practical and hence, well experienced experts in conducting mock-drills and exercises need to be involved; and
- b) The community simulation exercise should be conducted with imagination and repeated wherever necessary to ensure full and complete internalization of skills.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Slide

### Integrating Technology for Disaster Risk Reduction

- ★ Information Communication Technology has emerged as new tools for integrating different interrelated communication systems.
- ★ Close to this are other communication systems like internet, mobile phones, fax, e-mail radio and T.V (including Ham Radio) to reach out rapidly to a large cross section of people including fishing communities.
- ★ Space Technology is another important component which provides both internet as well as conduit.
- ★ Remote sensing, satellite meteorology (Sat Met) enabled products have proved to be extremely valuable in the risk reduction.
- ★ These are also valuable for monitoring & forecasting cyclones.
- ★ INSAT Images can be used to identify cloud systems over the oceans where no observational data is available.
- ★ These need to be supplemented with ground metrological observations and radar data for accurate assessment of rainfall.
- ★ An innovative use of INSAT in the Cyclone Warning Dissemination System (CWDS) consisting of over 250 disaster warning receivers installed in cyclone prone areas of the country to provide warning to coastal villages.
- ★ Data relay & communication satellites have the ability to deliver early warning & disseminate requisite information.
- ★ The advent of Very Small Aperture Terminals (VSAT), Ultra Small Aperture Terminals (USAT), and phased Array Antennae have enhanced the capability further by offering low-cost, viable technological solutions towards management and mitigation of disasters.
- ★ Satellite communication, capabilities, can greatly help in data collection, distress alerting, position location and coordinating actual relief in the field.

## SLS – 2

### Handout

## Understanding Animal/bird/ insect Behaviours for Hazard Early-warning

In addition to traditional monitoring and other human predictions of any disaster, animals and birds also can give us clues to impending earth activity. Both history and natural science have lent support to the importance of understanding animal behaviour as a part of early warning system. In 373 B.C., historians recorded that animals, including rats, snakes and weasels, deserted the Greek city of Helice in droves just days before a quake devastated the place. Apparently wild animals and domestic animals of rural areas are more sensitive to natural disasters than the animals exposed to various conditions and noises. One can notice the signs in the animals most commonly between 24 to 48 hours prior to earth activity. Yet, in some cases, scientists have noticed animal signs up to 30 days in advance of a disaster. Some of the findings, based on studies by animal behaviour scientists, are listed here. However, these do not rule out the primary importance of scientifically tested and technologically sound modern early-warning systems. Research is going on in many countries to further understand animal behaviour in relation to disaster warning.

Some of the catalogued early-warning signs:

### Cats:

Cats will be jumpy prior to earth quake. Warning signs such as hiding, running around frantically trying to escape to the outside, hanging on screens and meowing, or unusual behaviour may be observed with cats. Many times they will be aggressive, or will want to stick close to or be on top of you. Pacing, hissing, or growling can also be symptoms. Most cats will hide, so check their favourite hiding places.

### Dogs:

Behaviour exhibited before quake activity includes howling, whining, excessive barking or biting, restlessness, aggression, and increased devotion to owners. They will usually run around, and can bolt through gates, windows, or doors, and whine or stick to you like glue. Some dogs will become more protective or aggressive while others will be fearful or act dejected. Drastic differences in the number of advertised lost dogs and the animal shelter loads can precede quake activity in a specific area. Large increases in these numbers could give you a clue to upcoming earth activity.

### Fish:

Fish are sensitive to low-frequency vibrations and detect tremors long before humans.

**Catfish:** They will move violently. The bullhead catfish detects magnitude-2 earthquakes so weak people can't feel them at the top of 10-story buildings.

**Dolphins & Lizards:** Dolphins and lizards also show unusual behaviour before quake.

**Sharks:** Sharks go to the deeper water only during pre disaster like hurricanes.

**Chickens:**

Chickens stop laying eggs.

**Bees:**

They leave their hive in a panic.

**Elephants:**

Elephants trumpet wildly, breaks a chain holding it to a tree, and flee to higher ground just before a massive tsunami crashes ashore.

**Horses & Livestock:**

Hoofed animals often refuse to enter their barns or pens and often refuse to get tied. They tend to group together in open areas, act nervous, or pace.

**Frogs:**

Though nocturnal in nature, frogs are seen in daylight and go away from their roosts.

**Wild Animals:**

Wild animals often vacate areas, gather in strange groupings, and sometimes, even enter into human habitats (dwellings or barns) they normally avoid."

Wild Birds: They become quiet or are not visible.

**Hibernating Animals:**

Snakes, bears and other hibernating animals will emerge early.

**Caged Birds:**

They often hang on their cage, sometimes they will flap frantically, or they can be abnormally quiet. Breeding birds will often abandon their eggs or discard them from the nest.

**Crows:**

Crows circle in flocks and then hide.

**Spiders and Ants:**

Move indoors.

**Rodents:** Invade the house or if they are in residence will disappear.

Old Reindeer: They run in the evenings.

Source:

- a) *John Caprio, a biological sciences professor at Louisiana State University specializing in fish senses;*

- b) *A Sense Of Doom: Animal Instinct For Disaster, Scientists Investigate Wildlife's Possible Warning Systems Don Oldenburg / Washington Post Staff Writer; and*
- c) *Guerrero's animal disaster preparedness booklet.*

## 10.4. Subject/Theme:

### Disaster Stereotypes, Imagery and Ethics

#### PART-I

#### Introduction and Overview

When Lisbon shook in 1755, Voltaire had asked, if God was at all just, why did he not instead shift the earth under London and Paris, which were infinitely more sinful? The belief, although weaker now, still continues. When earthquake struck Bihar, highly educated people termed it as punishment for the State practicing unsociability. In pre-Industrial societies across the world, a disaster was considered as the evidence of God's displeasure with mankind's sins and wayward behaviour. When earthquake hit Sichuan province, China in May 2008, many Chinese wondered if it was a divine atrocity. During the earthquakes, floods, cyclones in Pak-occupied Kashmir, during Katrina, in Chittagong, in Myanmar, in Bhuj, in Odisha coast, such **social biases** and **fatalistic explanations** were readily

offered. Then there are questionable practices that media and international relief Organisations / donor agencies adopt while presenting the images of disaster victims to **excite emotions** and **provoke response**.

Virtually almost all imagery of disaster are patronizing to the victims depicting them as helpless, passive souls and others as their heroic saviours. These images, if handled insensitively, often generalize, over simplify, distort and reinforce stereotypes. They deny people their claim to self-respect, mislead public opinion and create incorrect and embarrassing impressions. In April 1989, the General assembly of European NGOs has adopted a code of conduct on images relating to the 'Third world'. An Oxfam report suggests that images should:

- a) **Respect people's dignity as individuals;**
- b) **Challenge prejudices rather than reinforce them; and**
- c) **Portray images that represent people's need and not as recipients of aid.**

#### Objective

To counter dispel disaster stereotypes and negative imagery.

#### Methods

Brain storming and group discussion.

### Materials/Learning Aids

Flip Chart, Posters, Pictures, Video clips.

### Duration

One session (For details refer page no. 9).

### Expected Learning Outcome

#### **Cognitive/knowledge related:**

- a) More Knowledge About How Negative Stereotypes, Images And Unethical Portrayals Of Disaster Damages Peoples Dignity

#### **Competency/skill related:**

- a) Ability to challenge prejudices, respect cultural identity and dignity of affected people, provide more realistic, truthful, objective and complete information

### Sub-themes/Key Learning Points/ Issues

- a) What is a stereotype?;
- b) Disaster stereotypes;
- c) What is an image?;
- d) Current disaster related images;
- e) Ethic and code of conduct on disaster; and
- f) Examples, ways to portray objectives facts.

### Activity

- a) A step-by-step discussion: All the stereotyped beliefs, images, messages are enlisted in sequence.

Questions are asked to drag out opinion, comments, observations, and information from participants/trainees.

### Supplementary Learning Support Material

- a) Oxfam's 1991 report;
- b) Handout on Code of Conduct on Images and messages relating to the 3rd World by General Assembly of European NGOs; and
- c) A save the Children poster & Focus on images.

### Further Study/References

- a) ***Imagery and ethics in disaster reporting***, Chapter-V, *Disaster Communication- a Resource Kit For Media, 2002.*

### Note for the Facilitator

- a) The facilitator makes a brief introduction about various beliefs, myths, stereotyped and images of disaster;
- b) Asks participants to mention/report if they have come across such images/ stereotypes;
- c) Following a step-by-step method, each image/stereotype is examined by the group through a 'tone-false' don't know questionnaire; and
- d) A discussion around the issue and summing up by the facilitator.

## PART-II: Supplementary Learning Support Materials

### SLS - 1

#### Handout

### Disaster Assessment

#### **What is it?**

Assessment means estimation. Disaster assessment is an **effective way to take account of both rapid or immediate and long term assessment on needs of the particular affected population/area.** Thus, it enables designing appropriate plan and programme. This is also a useful tool for pre and post disaster assessment of situation, need, etc. Assessment is carried out successfully when members from local community involved in the process, participate in designing their programs, utilizing their local resources. In this process the ownership of the programme lies with the community.

Community level assessment is the process of determining the impact of a hazard on a community, identifying the needs and priorities for immediate emergency measures to save the lives of survivors, calculating the resources available within the community, visualizing the possibilities of facilitating and expediting long-term recovery and development.

#### **What it involves?**

It involves **identifying essential information, immediate need of the most vulnerable community and the resources requiring** thorough data collection (both first and second hand) analyzing and interpreting the data, reporting the conclusions so as to design the disaster response plan and programme).

#### **What role it plays in disaster management?**

- a) Confirms the occurrence of the disaster, identify, characterize and quantify populations at risk;
- b) Helps to define and prioritise the actions and resources, necessary to reduce immediate risks, identify local, organisational, medical and logistics resources;
- c) Helps anticipate future serious problems;
- d) Helps manage and control the immediate response;
- e) Identifies the immediate action to be taken by the community in order to minimize the effect of disaster;

- f) Conditions the transportation and communication networks in the affected areas; and
  - g) Identifies the immediate needs such as food, water, shelter, health, sanitation, etc. and keeps account of the Govt.'s initiatives towards the disaster response.
- c) Process data quickly while they are still useful, Do Not delay;
  - d) Determine location, magnitude of problems;
  - e) Prioritise the immediate needs; do not be swayed by local pressure; and
  - f) Assess objectively all critical sectors (health, search & rescue, public facilities, shelter & housing, household needs, agriculture and economic needs, water & sanitation and security, etc.) and identify their relationships.

### ***Guidelines for Assessment***

- a) Verify/crosscheck the quality and accuracy of collection and assessment of data;
- b) Use existing information systems;

**SLS - 3**

*Handout*

<b>'What' and 'How' to Write a Disaster Related Report</b>	
<b>What</b>	Write about the event, i.e., flood, cyclone, earthquake, fire, bomb blast. etc.
<b>Who</b>	Victims, survivors, infrastructure damaged, differential impact on men, women, children, poor, sick, elderly, etc.
<b>Where</b>	Location of the event, extent of impact
<b>When</b>	Time and duration of the event, expected aftermath
<b>Why</b>	Explain why it occurs, causal factors, vulnerabilities, various view points of stake- holders
<b>How</b>	How the government and people are preparing to cope with the event, what resources are required
<b>Impact</b>	Who have been affected by the news? Will the report influence policy or inform public, will it mobilize public action
<b>Guide</b>	What do people need to do, what precaution needed, who should people command, how can they work to improve the situation
<b>Avoid</b>	Loose writing, sensationalism, inaccuracies, secondary issues, irrelevant information, too many technical details, jargons, long sentences
<b>Collect</b>	Collect information from many sources / stake holders to arrive at findings
<b>Cross Check</b>	Cross check the information collected from different sources to get accuracy of data and reality of the situation
<b>Comment</b>	Give brief and informed comment by comparing it with similar events

*(Adapted from Disaster Communication – a resource Kit for India, 2002)*

# Section 10

# Section 11

## Additional Support Materials

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## Annexure – I (A)

### Training and Orientation Schedules for Senior CD & other functionaries, Planners, Policy Personnel

**Objective:** To equip policy planner and senior level functionaries of the Civil Defence organisation, Home Guards, and other sister organisations with the latest developments in the field of disaster preparedness, policies, plans, programmes and implementation strategies.

**Duration:** One day

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
08.30 a.m. – 09.00 a.m.	Registration	Reception	Resource kit	Registration forms, pre-training questionnaires etc.
09.00 a.m. – 09.15 a.m.	Welcome and opening remarks	Broad objectives, Logistics, house keeping arrangements, etc	Course director, Facilitator welcomes the delegates.	
09.15 a.m. – 09.45 a.m.	Self introduction & program introduction, agenda building	Understanding each other, understanding the programme, expectation sharing, & building a consensus on the day's agenda	Presentation, Interaction	Programme schedule, sheets of paper, OHP, LCD
09.45 a.m. – 10.30 a.m.	New developments in Disaster Management Practices in India – paradigm shift, Policies and New Approaches, Mainstreaming Issues	Conventional Paradigm, Dominant Perspectives, Policies & Alternative Approaches, Disaster Management Structures and Institutions, Disaster Management Action Plans and Guiding Principles	Handouts, Slide show, Lecture-cum discussion, Co-facilitation	OHP, LCD, Audio-visual aids, Co-facilitations to be done by a senior and experienced participant or NCDC/NDM faculty

# Annexure

Timings	Subject/ Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
10.30 a.m. – 11.30 a.m.	International Efforts and Commitments, Policies & Action Plans, Incident Response System (IRS), Humanitarian Charter etc.  Disaster Imagery, Stereotypes and Ethics	International Decade for Natural Disaster Reduction (IDNDR), UN resolution on disasters. International Disaster Management Conference on Public Private Partnership,  Geneva Mandate on Disaster Reduction. Disasters in South Asia- impact, issues and country profiles. Minimum standards of Disaster Response, various aspects of IRS	Handouts, Slide show	OHP, LCD, Audio-visual aids
11.30 a.m. – 11.45 a.m.		Health Break		
11.45 a.m. – 01.00 p.m.	New roles & challenges envisaged for CD, Implementation issues	CD Act and Structures, Review of new Roles and Responsibilities, High Power Committee (HPC) recommendations, Restructuring the CD services, new roles, training and capacity building	Handouts, slide show I. Handout- Existing CD Services & Services to be retained with Enhance Profile (pg. 26,31), 16	OHP, LCD, Audio-visual aids
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00p.m. – 02.45 p.m.	Engaging civil society, Involving Organisations of Youth volunteers (OYVs), Promoting spirit of Volunteerism, Challenges of Volunteer Management	Understanding work dynamics of civil society, OYV's, alliance building, synergy, Role of non-state agencies in disaster management, their knowledge & experience base and contribution in disaster mitigation, Public- Private Partnership framework, Public awareness and education, etc	Co-facilitation, Brainstorming	OHP, LCD, Audio-visual aids

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
02.45 p.m. – 03.30 p.m.	Addressing vulnerability and special groups, Elements of risk assessment and risk management, Hazard mitigation plan	Defining vulnerability, Social, cultural, economic & political aspects, Class, caste, ethnicity, gender, women, children and adolescents, aged, disables and poor, Basic information about a threat or event, its nature, intensity, frequency, consequences, Vulnerability of natural & human built environment, Identifying technologies and behaviour that reduce risks.	Discussion, Brainstorming, Handouts - Case study on Poverty & disaster (pg.20)	Audio-visual aids
03.30 p.m. - 03.45 p.m.		Health Break		
03.45 p.m. – 04.30 p.m.	Stakeholder co-ordination	Linkages and networking, Major disconnects in Disaster Response	Co-facilitation, Panel, Seminar, Discussion	OHP, LCD
04.30 p.m. – 05.15 p.m.	Defeating disasters- lessons learnt, Planning for future	Ideas for Action for a Safer Future Policy, Programme challenges, Capacity building of CD& other stakeholders, Lessons learnt from major disasters, New developments on early warning system, Prevention and risk reduction.	Brainstorming	Flip chart, marker, drawing sheets, sketch pens
05.15 p.m. – 05.30 p.m	Evaluation, Summing up	Course evaluation, Developing appropriate responses for new challenges.	Closing up, Concluding session	

**Note for Facilitator:** Please note that this is a flexible design. New issues of importance can be added from time to time. Only national level experts should be chosen as resource persons.

## Annexure – I (B)

### Senior and Middle level Officials and Key Programme Personnel including Trainers

**Objective:** To orient mid-level functionaries of the Civil Defence organisation, Home Guards, and other sister organisations about various aspects and types of disasters, their management, preparedness, approaches and strategies, capacity building ways and initiatives, knowledge and application of training methods to the disaster context, skills and competencies of working as **master trainers**.

**Duration:** Seven days

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
DAY I				
09.00 a.m.- 09.30 a.m.	Registration		Resource kit, Reception of Delegates	Registration forms, Pre-course evaluation questionnaires
09.30 a.m.- 10.00 a.m.	Welcome & Opening remarks	Broad objectives, Logistics, House keeping arrangements, etc.	Course director, facilitator welcomes the delegates.	
10.00 a.m. - 11.00 a.m.	Warming up, Ice Breaking & self introduction by participants	Understanding each other	Pairing / Opinion collection/Interviewing	Chits, flashcards
11.00 a.m. - 11.15 a.m.	Health Break			
11.15 a.m. - 11.45 a.m.	Expectation sharing	Understanding the programme, Expectation sharing	Collecting feedback, Group discussion & Presentation	Flip charts, drawing sheets/marker

Timings	Subject/ Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.45 a.m. – 12.00 a.m.	Establishing ground rules for the training, Selection of the reporter for the day	Building a consensus	Mutual discussion moderated by facilitator	Flip chart, marker
12.00 p.m.– 01.00 p.m.	What is disaster- definition & debates, Concept clarification	Different perceptions, Disaster vocabulary & terms, Types, stages and phases of disasters	Quiz, Assessment of knowledge and perception, Discussion	Flip chart, marker, questions for quiz
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 P.M. – 03.30 P.M.	Disaster-causes, characteristics & consequences	Analysis of factors, Hazard, Vulnerabilities, capacities & risks	Incidence / case study sharing	Video, CD(s), Handouts
03.30 p.m. – 03.45 p. m.	Health Break			
03.45 P.M. – 04.45 p.m.	Disaster-Development linkages	What is development, Economic and Social impact of Disasters, Losses due to disaster and People affected by disasters.	Experience sharing / group work	OHP, PPP handouts
04.45 p.m.. – 05.00 p. m.	Gender issues & other special groups in Disaster	Special groups: women, children, adolescents, aged, otherwise able, etc.	Experience sharing / group work	Flip chart, sketch pen, Swallow tape
<b>DAY-II</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-I, Selection of reporter for the day			

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	National & International initiatives on disaster management.	National disaster policy, IDNDR, HFA, Tampere Declaration on Disaster Communications, International Disaster Management Conference on Public Private Partnership, Geneva Mandate	Presentation & discussion	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Disaster communication	Information, communication and early warning systems	Experience sharing / Group work	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Disaster management	Disaster management cycle (response, rehabilitation, recovery, reconstruction, mitigation, preparedness), Risk assessment and management	Problem-centered and peer-critique technique	Flip chart, marker
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Community based disaster preparedness (CBDP)	What is disaster preparedness, Why community is important, Constraints and limitations of CBDP, Strengthening local coping mechanism, Team building, Safety procedures, Do's & don'ts, Lessons learnt, etc.	Role play, mock drills, group work	Flip chart, marker, handouts, charts, maps, board
<b>DAY-III</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-II and selection of reporter for the day			

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	Floods and other water related disaster	Definition, types (flash floods, river floods, saline floods, urban floods, stagnation, flood due to mismanagement, etc) - Causes and effects	Experience sharing / group work	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 P.m.	Cyclone and other wind related disasters	Definition, types (Storm, tornado, hurricane, typhoon, Loo & heat & cold waves, etc)- Causes and effects	Experience sharing / group work, exercises	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Earthquake and other earth related disasters	Definition, types (Tsunami, Landslides, Avalanches, etc)- Causes and effects	Experience sharing / group work/exercises	Flip chart, marker, handouts, maps, board
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Drought and famine, other crop related disasters	Definition, types (Famine, epidemic, paste attack, etc)- Causes and effects	Experience sharing / group work/exercises	Flip chart, marker, handouts, charts, maps, board
<b>DAY-IV</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-III and selection of reporter for the day			

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	Riots, violence and other conflict related disasters	Definition, types (Ethnic riots, political riots, war, etc) - Causes and effects, Do's and don'ts	Experience sharing / group work/simulation, games/case study	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Accidents & stam-pede	Definition, types (Road, rail, air, chemical and industrial, etc) Stampedes - causes and effects, Do's and don'ts	Experience sharing / group work/exercises	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Fire and other related disasters	Definition, types (Forest fire, village fire, fire in high rising buildings, fire in crowded public places, etc) - Causes and effects, Do's and don'ts	Experience sharing / group work	Flip chart, marker, handouts, maps, board
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Brainstorming on challenges and appropriate strategies	Identification of different challenges of both manmade and natural disasters, Develop appropriate strategies	Experience sharing / group work in 4 groups, two groups for identifying challenges (1 for manmade & 1 for natural disasters) and 2 groups for developing strategies to respond to the probable challenges.	Flip chart, marker

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
<b>DAY-V</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-IV and selection of reporter for the day			
09.30 a.m. – 01.00 a.m.	Field Visit to assess the disaster consequences and develop an action plan to respond to the situation.	Assessment of the situation, VCA, Identification of challenges, Collection of information on loss, Cross checking of the information, Need assessment and reporting, Source of resources and budgeting	Interview, data collection, cross check, PRA, group work	Flip chart, marker
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Field Visit contd.			
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Presentation of Field report	Findings of field visits	Group work	Flip Chart, marker
03.30 – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Disaster management structures and institutions, Disaster management Policy in India	Various structures and systems to implement DM policy in India	Lecture – cum- discussion	Flip Chart, marker

# Annexure

Timings	Subject/Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
<b>DAY-VI</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-V and selection of reporter for the day			
09.30 a.m. – 11.00 a.m.	Disaster management plan	Linkage with development and gender issues, Contingency planning	Discussion, exercise, group work	Flip chart, marker, handouts, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session contd.	Volunteer management as part of planning	Discussion, exercise, group work	Flip chart, marker, handouts, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Civil Defence and disaster management	Role and responsibilities of civil defence till today, New emerging role to adopt disaster management	Brief overview, discussion	Flip chart, marker, handouts, board
03.30 p.m. – 04.00 p.m.	Health Break			
04.00 p.m. – 05.30 p.m.	Developing an action plan for disaster management	Action plan for pre, during, and post-disaster management	Group work in 4 groups,	Flip chart, marker
<b>DAY-VII</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day VI and selection of reporter for the day			

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	Demonstration on training skills	Any disaster related topic opted by the participant	Role play (guided by facilitator)	Flip chart, marker, Board as required by the trainees
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session contd.	Evaluation and analysis of demonstration on training skill & methodologies	Discussion highlighting the learning points	
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Clarifications of queries, if any, Evaluation of training programme	---	Question/answer, Filling up of evaluation sheet	--
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Closing Session/ Valedictory	Certificate distribution	--	--

**Note for Facilitator:** This is a suggestive design - change or modify depending on the local needs.

## Annexure – I (C) Key Volunteers of CD, NCC, NYKS, NSS, Scout & Guides, Red Cross, etc.

**Objective:** We can term this as the foundation course for Disaster management. It aims to make the key volunteers familiar with various concepts, aspects and types of disasters; to enhance participants' efficiency/potential in management, preparedness, approach and strategies, capacity building, ways and initiatives, knowledge and application of training methods to the disaster context; to add to their skills and competencies enabling them to work effectively in disaster situations.

**Duration:** Fifteen days

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
<b>DAY I</b>				
09.00 a.m. – 09.30 a.m.	Registration	Reception	Resource kit with reference materials	Registration forms, pre-course evaluation questionnaires
09.30 a.m. – 10.00 a.m.	Welcome & Opening Remarks		Course director, facilitator welcomes the delegates to the programme.	
10.00 a.m. – 11.00 a.m.	Ice Breaking & Self introduction of each participant	Knowing each other	Pairing, feedback collection, interviewing	Paper, charts, flash cards
11.00 a.m. – 11.30 a.m.	Health Break			
11.30 a.m. – 12.00 noon.	Expectation sharing	Understanding primary expectations of the proposed programme	Obtaining views, group discussion & presentation	Flip charts, drawing sheets/marker

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
12.00 noon.- 12.15 p.m.	Establishing Ground rules for the training, Selection of the reporter for the day	To ensure discipline, promote participation, respect difference	Mutual interaction, discussion, short-listing ground rules	Flip chart, marker
12.15 p.m. – 1.00 p.m.	Knowledge & perception assessment on disasters	Identification of disasters based on their knowledge and understanding	Group work to identify disaster related events from newspaper & media, Conceive stories of their own	Newspapers from different dates, drawing sheets, sketch pens, flip chart, marker
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 P.M. – 03.30 P.M.	Presentation of pre-lunch Group work	Group learning about disasters	Group presentation Assessment of knowledge and perception, Discussion	Flip chart, marker
03.30 p.m. – 04.00 p.m.	Health Break			
04.00 p.m. – 05.30 p.m.	Disaster Scenario in India, International efforts	Brief history, chronological events	Information input	PPP Handouts
<b>DAY II</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-I and selection of reporter for the day	To assess what was learnt and connect to new learning		

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	Civil Defence	What is it, its goal, aims, objectives, functions	Lecture, discussion	PPP Handouts
11.00 a.m. – 11.30 a.m.	Health Break			
11.30 a.m. – 01.00 p.m.	Civil Defence	Civil Defence Act, organisation, Structures, limitations	Lecture	Flip chart, marker, handouts, board
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 p.m. – 03.30 p.m.	Civil Defence	Roles and responsibilities, restructuring CD organisations, High Power Committee recommendations, New roles	Lecture, Discussion	Flip chart, marker, handouts, board
3.30 p.m. – 04.00 p.m.	Health Break			
04.00 p.m. – 05.30 p.m.	Civil Defence & other sister organisations, NGOs, civil society coordination	Promoting spirit of volunteerism, Linking with other sister organisation, Volunteer management strategies, Leadership & motivation, Role of youth organisations, Networking and alliance building		Flip chart, marker, handouts, board

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
07.00 p.m. – 09.00 p.m.	Audio-visual / documentary on group leadership, disaster definition, etc	--	Video show	VCD, CD, etc
<b>DAY III</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-II and selection of reporter for the day			
09.30 – 11.00 a.m.	All about Disaster –	Characteristics of disasters, meaning & Definition, Disaster vocabulary, Disasters types, characteristics, causes and consequences	Quiz, discussion, interaction	Flip chart, marker, handouts, board
11.00 – 11.30 a.m.		Health Break		
11.30 – 01.00 p.m.	Disaster and development	Linking both	Brainstorming, lecture	PPP Handouts
01.00 – 02.00 p.m.		Lunch Break		
02.00 – 03.30 p.m.	Special Issues in disaster management	Aged, women, children, differently abled persons	Group opinion collection, discussion	Whiteboard marker

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
3.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Impact of disaster Management (a given situation) on different vulnerable groups	Impact on women, aged, children, differently abled persons	Small group activity	Flip chart, marker
07.00 p.m. – 09.00 p.m.	Audio-visual show / documentary on impact of disaster	--	Video show	VCD, CD, etc
<b>DAY IV</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-III and selection of reporter for the day			
09.30 a.m. - 11.00 a.m.	Disaster management plan	Disaster management cycle, Linking to development	Experience sharing / group work	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session Contd..	Contingency planning, Volunteer management, Gender issues	Experience sharing / group work	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Disaster Management Action	Early warning, assessment, search and rescue, first aid, shelter and relief management, team co-ordination, team work, reporting, etc	Experience sharing / group work/exercises	Flip chart, marker, handouts, maps, board

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Disaster assessment	Risk, hazard, vulnerability, capacity, risk management, relief issues	Experience sharing / group work	Flip chart, marker, handouts, maps, board
07.00 p.m. – 09.00 p.m.	Audio-visual show / documentary on community participation in post-disaster situation	Group learning	Video show	VCD, CD, etc
<b>DAY V</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-IV			
09.30 a.m. – 11.00 a.m.	Practical sessions on Search & Rescue	Use of ropes, Alternate arrangement of tools, rope and stick	Practical	Ropes, sticks of different sizes
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Contd..	Contd..		
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Contd..	Search and rescue in water, forest, thick fire, high rise buildings, deep wells, mines, trees, vulnerable and risky places	Practical	
03.30 p.m. – 04.00 p.m.		Health Break		Practical

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
04.00 p.m. – 05.30 p.m.	Demonstration by the participants	Contd..		
07.00 p.m. – 09.00 p.m.	Cinema / documentary on Search and rescue methods	--	Video show	VCD, CD, etc
<b>DAY VI</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-V			
09.30 a.m. – 11.00 a.m.	Basics of Disaster First Aid	What is first aid, principles of first aid, qualities of first aider	Lecture-cum-discussion	PPP Handouts
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Contd..	Understanding the human body structure	Demonstration	Maps, pictures, skeleton
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Contd..	Tackling wounds, bleeding, fractures, poisoning, drowning, etc	Practical	Bandage, gauge, cotton, etc
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Contd.	Cardio-pulmonary resuscitation (CPR), Artificial respiration	Practical	VCD, CD, etc
07.00 p.m. – 09.00 p.m.	Cinema / documentary on use of First-aid tools	--	Video show	VCD, CD, etc

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
<b>DAY VII</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-VI and selection of reporter for the day			
09.30 a.m. – 11.00 a.m.	Floods – Nature & characteristics	Definition, Causes and impact	Experience sharing / group work	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Types of Flood	Flash floods, river floods, saline floods, urban floods, stagnation flood, mitigation measures; Do's & don'ts		PPP
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Rescue mechanism during flood	Effective tools, skilled volunteer, Plan & management of flood	Group activity	Flip chart, marker
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Session contd..	Do's and don'ts	Role play	--
07.00 p.m. – 09.00 p.m.	Cinema / documentary on flood & its impact	--	Video show	VCD, CD, etc

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
<b>DAY VIII</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-VII and selection of reporter for the day			
09.30 a.m. – 11.00 a.m.	Cyclone and other wind related disasters	Definition, types (Storm, tornado, hurricane, typhoon, Loo &, lightning, etc)- causes and effects	Experience sharing / group work	Flip chart, marker, hand-outs, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session contd.		Experience sharing / group work	Flip chart, marker, hand-outs, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Rescue mechanism for Cyclone	Plan & management, of cyclone, Lessons learnt; Do's and Don'ts	Experience sharing / group work	Flip chart, marker, hand-outs, maps, board
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Session contd.	Identification of different challenges of both man-made and natural disasters and develop	Experience sharing / Group work in 4 groups, two groups for identifying challenges	Flip chart, marker

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
07.00 p.m. – 09.00 p.m.	Cinema / documentary on Cyclone & its impact	appropriate strategies, Do's and don'ts, Guidelines	(1 for manmade & 1 for natural disasters) and 2 groups for developing strategies to respond the probable challenges. Video show	VCD, CD, etc
<b>DAY IX</b>				
09.00 a.m. – 11.00 a.m.	Field Visit/Study			
11.00 a.m. – 11.30 a.m.			Health Break	
11.30 a.m. – 01.00 p.m.	Field Visit /Study Continued			
01.00 p.m. – 02.00 p.m.			Lunch Break	
02.00 p.m. – 3.30 p.m.	Field visit /Study continued			
03.30 p.m. – 04.00 p.m.	Health Break			
04.00 p.m. – 05.30 p.m.	Field visit /Study continued			
07.00 p.m. – 09.00 p.m.	Preparation of field reports			Drawing sheet, sketch pens
<b>DAY X</b>				
09.00 a.m. – 09.30 a.m.	Presentation Of Report of day IX			Drawing sheet, sketch pens

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
09.30 a.m. – 11.00 a.m.	Presentation of field reports			
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Contd.			
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 p.m.– 03.30 p.m.	New Strategies/Initiatives/ap- proaches on disaster management	Disaster response	Lecture/discussion/ group work	PPP, flip chart, marker
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Coordination	Networking and com- mand system	lecture	PPP
07.00 p.m. – 09.00 p.m.	Cinema / documentary on Civil defence intervention	--	Video show	VCD, CD, etc
<b>DAY XI</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-X and selec- tion of reporter for the next day			
09.30 a.m. – 11.00 a.m.	Earthquake and other earth re- lated disasters	Definition types (Tsu- nami, Landslides, Avalanches etc.)-causes and effects	Experience sharing/ group work/exercises	Flip chart, marker/PPP

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session contd.	Do's and don'ts, guidelines		handouts, slides
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Rescue mechanism for earthquake/Tsunami/avalanches/landslides	Effective tools, Skilled volunteer, Plan and management of flood	Group work and exercises	Flip chart, marker
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Session contd.	Disaster management circle (response, rehabilitation, recovery, reconstruction, mitigation, preparedness)	Problem-centered and peer-critique technique	Flip chart, marker
07.00 p.m. – 09.00 p.m.	Cinema / documentary on earthquake, tsunami, landslide & their impact	--	Video show	VCD, CD, etc
<b>DAY XII</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-VII and selection of reporter for the day			
09.30 a.m. – 11.00 a.m.	Drought & famine – nature, characteristics and responses	Definition, types (famine, epidemic, paste attack, etc)- causes and effects	Discussion, exercise, group work	Flip chart, marker, handouts, maps, board

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Session contd.	Volunteer management as part of planning	Discussion, exercise, group work	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Management of drought and famine	Planning & management for drought and famine	Brief overview, discussion	Flip chart, marker, handouts, maps, board
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Session Contd.	Epidemic management	Group work in 4 groups,	Flip chart, marker
07.00 p.m. – 09.00 p.m.	Cinema / documentary on drought, famine	--	Video show	VCD, CD, etc
<b>DAY XIII</b>				
09.00 a.m. – 09.30 a.m.	Recapitulation of Day-VIII and selection of reporter for the day	High-rise		
09.30 a.m. – 11.00 a.m.	Fire Hazards – Characteristics & nature	Definition, causes and effects	Experience sharing / group work	Flip chart, marker, handouts, maps, board
11.00 a.m. – 11.30 a.m.		Health Break		

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.30 a.m. – 01.00 p.m.	Types of fire and their impact	Forest fire, village fire, fire in high-rise buildings, fire in crowded public places, etc	Experience sharing / group work / exercises	Flip chart, marker, handouts, maps, board
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 p.m. – 03.30 p.m.	Heat & Cold wave- Types, causes, impact	History, how they occur, steps for safety emergency assistance	Experience sharing / group work	Flip chart, marker, handouts, maps, board
03.30 p.m. – 04.00 p.m.	Health Break			
04.00 p.m. – 05.30 p.m.	Rescue mechanism for house fire, forest fire, heat & cold wave	Details of rescue, public awareness, Do's & don'ts	Experience sharing / group work	Flip chart, marker, handouts, maps, board
07.00 p.m. – 09.00 p.m.	Cinema / documentary on fire disaster	--	Video show	VCD , CD, etc
<b>DAY XIV</b>				
09.00 a.m. – 09.30 a.m.	Presentation of day XIII report			
09.30 a.m. – 11.00 a.m.	Accidents- Nature & characteristics, types of Accidents & impact	Definition, Causes and effects, types (road, rail, air, chemical and industrial, Stamped, etc)	Group work in 4 groups	Flip chart, marker

# Annexure

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.00 a.m. – 11.30 a.m.		Health Break		
11.30 a.m. – 01.00 p.m.	Special care	Aspects of Psycho-social care & treatment		Flip chart, marker
01.00 p.m. – 02.00 p.m.		Lunch Break		
02.00 p.m. – 3.30 p.m.	Violence & conflict	Nature, types, cause and consequences, response	Group work in 4 groups	Flip chart, marker
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Rescue, response mechanism for accidents including war & conflict, stampede.	Plan & management for Accidents, war, conflict, stampede, Do's & don'ts	Group work in 4 groups	Flip chart, marker
07.00 p.m. – 09.00 p.m.	Cinema / documentary on accidents and their impact	--	Video show	VCD, CD, etc
<b>DAY XV</b>				
09.00 a.m. – 09.30 a.m.	Presentation of day XIV report			
09.30 a.m. – 11.00 a.m.	Disaster management principles	Policies, codes, standards and conducts	Lectures	PPP handouts
11.00 a.m. – 11.30 a.m.		Health Break		

Timings	Subject / Topic	Sub theme / Key Learning Points	Methods / Materials	Tools
11.30 a.m. – 01.00 p.m.	Contd.			
01.00 p.m. – 02.00 p.m.	Lunch Break			
02.00 p.m. – 3.30 p.m.	Evaluation	Course evaluation, developing appropriate responses for new challenges.	Filling up	Evaluation formats
03.30 p.m. – 04.00 p.m.		Health Break		
04.00 p.m. – 05.30 p.m.	Summing up	Lessons learnt	Closing up	

**Note for Facilitator:** *Modify this design based as per the changing needs of the trainees.*



12. What is your expectation from this Course, more so, on following aspects?

*Knowledge /  
Information*

*Skills / competencies*

*Attitudinal and  
behavioral changes*

*Strengthening  
capabilities*

*Any other*

13.	Are you aware of the basic objectives and training methodology for this course?	Yes	No
-----	---	-----	----

14 How much you feel attending this course will improve your performance in future and strengthen your capabilities?

## Annexure – III

### Session Evaluation Format \*

- |    |  |                  |    |
|----|--|------------------|----|
| 1. | Subject / theme of the Session   |                  |    |
| 2. | Name of the Resource person / facilitator  |                  |    |
| 3. | Was there any material/handout provided to you about the topic covered in this session at the start of the course? | Yes              | No |
| 4. | If yes, did you read it before hand and noted down certain points for further clarification?                       |                  |    |
| 5. | What is your rating of the following? :  | <b>E V G A P</b> |    |
|    | Contents of the Presentation   |                  |    |
|    | Methodology used   |                  |    |
|    | Delivery of the subject  |                  |    |
|    | Session and time management by the Facilitator / resource person   |                  |    |
|    | Interaction with the participants  |                  |    |
|    | Skill imparted   |                  |    |
| 6. | Was there any discussion on the topic covered in the session   | Yes              | No |
| 7. | If yes, did you participate?   | Yes              | No |
| 8. | If no, what made you not to participate  |                  |    |
| 9. | Are you satisfied with the question – answer/ discussion?  | Yes              | No |

- |     |   |     |    |
|-----|---|-----|----|
| 10. | Would you like the same person to be invited again for the said subject?    | Yes | No |
| 11. | If no, what kind of resource person, you feel, should conduct this session? |     |    |
| 12. | Which key objective of the Course has been fulfilled through this session?  |     |    |
| 13. | What were your expectations from this session?                              |     |    |
| 14. | Whether your expectations have been met with?                               | Yes | No |
| 15. | If no, why?   |     |    |
| 16. | Has this session :  |     |    |
|     | Increased your knowledge level ?  | Yes | No |
|     | Inculcated some new skills in you?  | Yes | No |
|     | Reinforced already existing skills?   | Yes | No |
|     | Motivated you to apply what you have learnt?                                | Yes | No |

**(E – Excellent; VG – Very Good; G – Good; A – Average; P – Poor)**



## Annexure – V

### Training Evaluation Format\*

Title of the Training program :  
Duration :  
Dates :  
Venue :  
Name of the :  
Course Director/Coordinator :  
Name of the :  
Training Institution/Agency :

1. Name of the participant / trainee
2. When did you get Background Training Material/ resource kit?
  - At the place of work
  - Immediately after reaching the venue of the course
  - Same day
3. If material was not sent to you earlier, do you feel it should have been and if so, how much in advance?
4. If the material had been sent to you earlier, had you read it before hand?
5. What were your expectations from this course?
6. Do you feel this course fulfils your job needs?
7. If yes, how and if not, what could have been laid more emphasis upon?
8. Are you satisfied with the key objectives of this training?

9. If no, what more could have been added in the list of objectives?
10. Do you feel the sessions/exercise/s scheduled in the course matched with the objectives?
11. If no, what are your suggestions?
12. Are you satisfied with learning outcome?
13. Has the training benefited you on following aspects?
  - Knowledge / Information
  - Practical Aspects
  - Skills and competencies
  - Attitude and Behavioural Changes
14. Do you feel you would be able to use the training outcomes in your job situation?
15. If yes, how and if no, what could have been stressed upon?
16. Do you feel motivated after attending the course to train/orient/reorient your other colleagues?
17. Are you satisfied with the training facility and arrangements during the course. Yes No
18. If no, what are your suggestions?
19. What, in your opinion was the attitude of the following?
  - Course Director/Coordinator **E VG G A P**
  - Resource person/experts
  - Support staff
  - Persons in charge of accommodation and food
20. What is your rating of the interaction with fellow participants? **E VG G A P**
21. Please be specific regarding felt improvements in :
  - Training Material/Kit
  - Listing of subject / themes
  - Conduct of sessions
  - Theory – Practice – Skills / exercises
22. What is your overall rating of the course? **E VG G A P**

## Annexure – VI

### Post Training Evaluation Questionnaire \*

#### Multiple Choice Item Mark (✓) to the right answer

- 1. Which one amongst the following is not a man-made disaster?**
  - ★ War
  - ★ Conflict.
  - ★ Industrial accidents
  - ★ Tornado
  
- 2. Which one of the following is not associated with climate disasters**
  - ★ Earthquake
  - ★ Cyclone
  - ★ Floods
  - ★ Drought
  - ★ Famine
  
- 3. The amount of energy released at the epicenter in case of earthquake is indicated by**
  - ★ Richter Scale
  - ★ Hecto Pascal
  - ★ Modified Mercalli Scale
  - ★ None of the above
  
- 4. Natural Disaster Management Division in India is located in the**
  - ★ Ministry of Home Affairs
  - ★ Ministry Of Labour and Employment
  - ★ Ministry of Agriculture and Cooperation
  - ★ Ministry of Human Resource Development

**5. Who amongst the following officers is the focal point at the district field level planning, directing, supervising and monitoring relief measures for disasters?**

- ★ Collector or Deputy Commissioner
- ★ Secretary of the State
- ★ Revenue Divisional Officer
- ★ DDO/Mamaldar/ village panchayat

**6. Mitigation means:**

- ★ Estimates of all the loss/damage,
- ★ deaths/injuries, evacuation, rehabilitation,
- ★ etc. after the occurrence of an accident/disaster.
- ★ Long term measures taken before a disaster
- ★ to lessen its effect on the community
- ★ Analysis of reasons of what went wrong
- ★ before the onset of disaster, once the normalcy
- ★ is restored
- ★ None of the above

**7. Preparedness Measures means**

- ★ Estimates of all the loss/damage
- ★ deaths/injuries
- ★ evacuation
- ★ Rehabilitation etc after the occurrence of an accident/disaster

\* Adapted from the "Disaster Management Hand Book "Document developed by IGNOU,

## Annexure – VII

### Disaster Vocabulary and Terminologies

**ACCIDENT:** An undesirable or unfortunate event that occurs unintentionally arising from carelessness, unawareness, ignorance, system failure or a combination of these causes which usually leads to harm, injury, loss of life, livelihood or property or damage to the environment.

**ACID RAIN:** This should be called acid precipitation because it includes rain, snow, sleet, fog and any other form of precipitation. It is produced as industrial by-products in emissions of sulphur and nitrogen oxides from burning coal and petroleum products. Found throughout the world, its heaviest concentration is in urban areas.

**AFFORESTATION:** Conversion of bare or cultivated land into forest.

**AGRICULTURAL WASTE:** Poultry and livestock manure or residual materials in liquid or Solid form generated in the production and marketing of poultry, livestock, fur-bearing animals and their products, rice straw, rice husks and other plant wastes.

**AIR POLLUTION:** The introduction of substances into the air which makes it impure.

**ALPHA RADIATION:** Alpha rays consists of nuclei of the element helium and carries a positive charge. They do not penetrate strongly, but do great damage in a small area.

**AQUIFER:** A geological formation which is usually composed of rock, gravel, sand or other porous material and which yields water to wells or springs. Can be polluted by introduction of pollutants through poorly capped wells, injection waste disposal and other entries below ground.

**BACKGROUND RADIATION:** Radiation that occurs naturally in the environment from cosmic rays and radon or from atomic tests and other nuclear activities carried out by man.

**BETA RADIATION:** Beta particles are electrons emitted from the nucleus of an atom and carry a single negative charge. They penetrate more than alpha rays, can cause skin burns and, when ingested, cancer.

**BIOACCUMULATIVE:** A characteristic of chemicals in species when the rate of intake into a living organism is greater than the rate of excretion, or metabolism. This results in an increase in tissue concentration relative to the exposure concentration.

**BIOLOGICAL HAZARDOUS WASTE:** Any substance of human or animal origin, excluding food wastes, which is disposed of and which could harbour or transmit pathogenic organisms. Such waste includes tissues, blood elements, excreta, secretions, bandages and related substances.

**BIOMASS:** Any organic material that can be turned into fuel-wood; includes dry plants and organic wastes.

**CARCINOGEN:** Substances that causes cancers. Some substances may be indirect carcinogens, which damage some body cells that then become sensitive to other substances that cause cancer.

**CARRYING CAPACITY:** A concept which holds that the maximum amount of life supportable by a natural biological system is determined by the maximum yield it can sustain without suffering damage. The maximum sustainable yield is determined by the system's size and regenerative powers.

**CHLOROFLUOROCARBONS (CFCs):** Manufactured gases used in refrigerators, air conditioners, solvents, food frezants and sterilants, and for making plastic foam used in fast-food containers, cups, insulation, packing material and other products. When released into the earth's atmosphere they react chemically and damage the ozone layer, thereby exposing people to dangerous levels of ultraviolet radiation from the sun.

**CYCLONE/HURRICANE/TYPHOON:** The terms hurricane and typhoon are regional names for a strong 'tropical cyclone'. All originate in tropical or sub-tropical waters and must spawn winds in excess of miles per hour.

Hurricane- north Atlantic Ocean. Typhoon – Pacific Ocean east of the international date line. Severe tropical cyclone – southwest Indian Ocean.

**DEFORESTATION:** The loss of forests due to collection of fuel wood, commercial logging, shifting cultivation, grazing, road construction, ranching mining and fire. Leads to soil erosion and flooding and endangers wildlife through habitat destruction.

**DESERTIFICATION:** A process whereby the productivity of the land is reduced through

deforestation, water logging and salinization, chemical degradation by nutrient leaching, and range-land mismanagement such as overgrazing, soil erosion and aridity and semi aridity.

**DISASTER:** An unforeseen and often sudden event that causes great damage, destruction and human suffering. Though often triggered by a natural hazard, Disasters can have human origins. An event is classified as a disaster when it results in a serious disruption of the functioning of society, causing widespread human, material, or environmental losses which exceed the ability of the affected society, causing to cope using only its own resources.

**DISASTER MANAGEMENT:** A collective term encompassing all aspects of planning for and responding to disasters, including both pre-and post-disaster activities. It may involve the management of both the risks and consequences of disasters.

**DISPLACED PERSON:** A term usually applied to person fleeing their homes because of an armed conflict, civil disturbance or natural disaster. It refers to people as long as they remain within the borders of their own country. Once they cross into another country they are defined, in most cases, as refugees.

**DISSOLVED OXYGEN:** Oxygen found in water and is required by organisms for survival; as the amount of sewage increases in water, bacteria multiply to feed on the sewage and consume more oxygen, thereby decreasing the amount in the water available for use by other animals living there.

**DROUGHT:** A normal, recurring feature of climate that originates from a lack of precipitation over an extended period of time, usually a season or more. Drought can occur in virtually all climates.

**EARTHQUAKE:** A shaking of the earth caused by a sudden movement of rock beneath its surface. An earthquake occurs on a fault, which is a thin layer of crushed rock between two blocks of rock. A fault can range in length from a few centimetres to thousands of miles.

**ECOSYSTEM:** The interacting system of the biological community and its non-living environment.

**EMERGENCY:** An extraordinary situation where there are serious and immediate threats

to human life as the result of a disaster, the imminent threat of disaster, the cumulative process of neglect , civil conflict, environmental degradation and social-economic conditions.

**EMERGENCY PREPAREDNESS:** To develop the capability during normal conditions to take action for utilising all available/mobilised resources that will effectively mitigate the consequences of an emergency and ensure safety and health of the people, quality of life, property and the environment.

**EMERGENCY RESPONSE:** Actions under conditions of stress created by an emergency, to mitigate the consequences of the emergency on the safety and health of the people, their quality of life, property and the environment. It may also provide a basis for the resumption of normal social and economic activities.

**ENVIRONMENTAL REPORTING:** Communicating information about interrelationships between man and the natural and man-made environment, events or conditions.

**EROSION:** The loss of surface soil through the action of precipitation and wind. Leads to sedimentation and situation of water-ways which destroy aquatic and marine habitats, make water undrinkable and clog water dependant industrial machinery and other intake equipment.

**EXERCISE:** The term exercise designates any type of drill, trial, tabletop, partial, full-scale and field exercise.

**FAMINE:** A lengthy period of time during which people experience a severe lack of food. War, poverty, drought, floods, volcanic eruptions, earthquakes and other disasters can cause famines. According to the United Nations, an estimated 20 percent of the populations of developing countries- more than 800 million people- are food deficient.

**FIELD EXERCISE:** An exercise involving the deployment of emergency response teams and personnel on or around the site.

**FIRST RESPONDER:** The member of an emergency service to arrive first at the scene of an emergency to provide rescue and relief operations.

**FLOOD:** Floods, especially flash floods, kill more people each year than hurricanes, Tornadoes wind storms or lightning. Flood water can be deceptively strong. Fresh water moving at 4 mph (a brisk walking pace) exerts a force of about 66 pounds on each square foot of anything it encounters.

**FOOD SECURITY:** Access by all people at all times to enough food for an active, healthy life. Its essential elements are availability of food and ability to acquire it. The U N Food and Agriculture Organisation's definition of food security includes the following requirements: adequate supply, stable supply, and access to the supply (including adequate consumption, adequate income in relation to food prices and access to employment).

**FLY ASH:** The airborne combustion residue from burning coal or other fuels, consists of mainly of various oxides and silicates. Major sources are pulverized coal-burning boilers

**GAMMA RAYS:** Electromagnetic rays similar to X-rays, emitted from an unstable atom's nucleus, which travel in straight paths at the speed of light, penetrate matter readily, but do not make the material radioactive. They penetrate a greater area than alpha or beta rays, but do less damage because they are a weaker form of radiation.

**GAMMA RAY IRRADIATION:** Experimental hazardous waste chemical treatment method, which disinfects waste by utilizing gamma radiation to destroy disease causing organisms.

**GENEVA CONVENTIONS:** A series of international agreements that provide the legal basis for the International Red Cross and Red Crescent Movement. They reaffirm the value of human life and dignity during times of war.

**GREENHOUSE EFFECT:** The theory that continued burning of fossil fuels will increase concentrations of carbon dioxide in the atmosphere, thereby trapping additional heat and moisture. In time, this will raise temperature levels.

**GROUND WATER:** The portion of the subsurface water, which is in the zone of saturation where nearly all openings between soil particles are filled with water. The top of the zone of saturation in the ground is called the water table.

**HABITAT:** The sum of total environmental conditions of a specific place that is occupied by an organism, a population or community.

**HAZARD:** A hazard is a natural or human-made phenomenon which may cause physical damage, economic losses, or threaten human life and well-being if it occurs in an area of human settlement, agricultural or industrial activity.

**HAZARD ASSESSMENT:** The process of estimating, for defined areas, the probabilities of the occurrence of potentially damaging phenomena of given magnitude within a specified period of time. Hazard assessment involves analysis of formal and informal historical records and skilled interpretation of existing topographical, geological, geomorphological, hydrological and land-use maps.

**HAZARD MAPPING:** The process of establishing geographically, where and to what extent particular phenomena are likely to pose a threat to people, property, infrastructure, and economic activities.

**HAZARDOUS WASTE:** Any waste which is ignitable, corrosive, reactive or toxic and which may pose a substantial or potential hazard to human health and safety or to the environment when improperly managed (reactive refers to the ability to enter into a violent chemical reaction which may involve an explosion or fumes).

**HAZMATS:** 'Techno jargon' for hazardous materials which, if released or misused, could pose a threat to people and the environment. HazMats can be explosives, flammable and combustible substances, poisons and radioactive materials.

**HUMAN-MADE DISASTER (MANMADE DISASTER):** A disaster or emergency situation whose principle, direct causes are identifiable human actions, deliberate or otherwise. Apart from 'technological disasters' this mainly involves situations in which civilian populations suffer casualties, loss of property, basic services and means of livelihood as a result of war, civil strife, other conflict or policy implementation.

**HYDROCARBONS:** Any of a large class of organic compounds containing only carbon and hydrogen. The molecular structure of hydrocarbon compounds varies from the simplest, methane, to heavier and more complex molecules such as octane, a constituent of crude oil and natural gas, which are often referred to as hydrocarbons or hydrocarbon fuels.

**INCIDENT:** An occurrence or event of minor importance.

**INTERVENTION:** Any action intended to reduce or avert exposure or the likelihood of exposure to sources which are not part of a controlled practice or which are out of control as a consequence of an accident.

**LANDMINE:** A landmine is an explosive device designed to be placed on or in the ground to explode when triggered by an operator or the proximity of a vehicle, person, or animal. The name originates from the practice of mining, where tunnels were dug under enemy fortifications or forces.

**MITIGATION:** The process of preventing disasters or reducing related hazards. Methods of limiting damage can be as simple as placing a fuse box higher on a wall in a flood-prone area, or as costly as strengthening a building's structure to withstand an earthquake.

**MONSOON:** A monsoon is a seasonal prevailing wind which lasts for several months. The term was first used in English in India, Bangladesh, Pakistan, and neighboring countries to refer to the big seasonal winds blowing from the Indian Ocean and Arabian Sea in the southwest bringing heavy rainfall to the region.[1] In hydrology, monsoon rainfall is considered to be that which occurs in any region that receives the majority of its rain during a particular season.

**NATURAL HAZARDS:** A natural hazard or geophysical hazard is a threat of an event that will have a negative effect on people or the environment. Many natural hazards are related, e.g. earthquakes can result in tsunamis, drought can lead directly to famine and disease.

**NUCLEAR OR RADIOLOGICAL DISASTER:** When the impact of a nuclear or radiological emergency, caused by a nuclear attack (as happened at Hiroshima and Nagasaki in Japan) or large-scale release of radioactivity from nuclear/radiological facilities (like that at Chernobyl in Ukraine) is very high, it assumes the dimension of a nuclear disaster leading to mass casualties, disruption of normal services, and destruction of large areas. Unlike nuclear emergency, the impact of nuclear disaster is beyond the coping capability of local authorities and such a scenario calls for handling at the National level, with assistance from international agencies, if required.

**NUCLEAR OR RADIOLOGICAL EMERGENCY:** An emergency in which there is, or is perceived to be, a hazard due to: (a) the radiation energy resulting from a nuclear chain reaction or from the decay of the products of a chain reaction; or (b) radiation exposure. Such emergencies are usually well within the coping capability of the plant/facility authority along with the neighbouring administrative agencies, if required.

**OZONE HOLE:** A growing hole in the stratospheric ozone layer appearing each year over the Antarctic for a few weeks in October. Ozone depletion describes two distinct,

but related observations: a slow, steady decline of about 4 percent per decade in the total amount of ozone in Earth's stratosphere since the late 1970s; and a much larger, but seasonal, decrease in stratospheric ozone over Earth's polar regions during the same period. The latter phenomenon is commonly referred to as the ozone hole.

**OZONE LAYER:** The ozone layer is a layer in Earth's atmosphere which contains relatively high concentrations of ozone (O<sub>3</sub>). This layer absorbs 93-99% of the sun's high frequency ultraviolet light, which is potentially damaging to life on earth.

**PHYTO-TOXIN:** Literally meaning "plant poison," a phytotoxin can refer to any toxin produced by a plant.

**POINT-SOURCE POLLUTION:** A point source of pollution is a single identifiable localized source of air, water, thermal, noise or light pollution. A point source has negligible extent, distinguishing it from other pollution source geometries. The sources are called point sources because in mathematical modelling, they can be approximated as a mathematical point to simplify analysis.

**POLLUTION:** It is the introduction of contaminants into an environment, of whatever predetermined or agreed upon proportions or frame of reference; these contaminants cause instability, disorder, harm or discomfort to the physical systems or living organisms therein. Pollution can take the form of chemical substances or energy, such as noise, heat or light energy.

**POLYCHLORINATED BIPHENYLS (PCBs):** PCBs are a class of organic compounds with 1 to 10 chlorine atoms attached to biphenyl which is a molecule composed of two benzene rings each containing six carbon atoms. The chemical formula for all PCBs is C<sub>12</sub>H<sub>10-x</sub>Cl<sub>x</sub>.

**PREPAREDNESS:** Refers to the State of being prepared for specific or unpredictable events or situations. Preparedness is an important quality in achieving goals and in avoiding and mitigating negative outcomes. It is a major phase of emergency management, and is particularly valued in areas of competition such as sport and military science.

**PROTECTIVE ACTION:** An intervention intended to avoid or reduce doses to members of the public in emergencies or situations of chronic exposure.

**RADIATION:** As used in physics, Radiation is energy in the form of waves or moving

subatomic particles emitted by an atom or other body as it changes from a higher energy State to a lower energy State. Radiation can be classified as ionizing or non-ionizing radiation, depending on its effect on atomic matter. The most common use of the word “radiation” refers to ionizing radiation. Ionizing radiation has enough energy to ionize atoms or molecules while non-ionizing radiation does not. Radioactive material is a physical material that emits ionizing radiation.

**RESPONSIBILITY TO PROTECT (R2P):** R2P is a recently developed concept in international relations which relates to a State’s responsibilities towards its population and to the international community’s responsibility in case a State fails to fulfill its responsibilities. One important aim, among others, is to provide a legal and ethical basis for “humanitarian intervention”: the intervention by external actors (preferably the international community through the UN) in a State that is unwilling or unable to prevent or stop genocide, massive killings and other massive human rights violations.

**RADIOACTIVE WASTE:** Radioactive wastes are waste types containing radioactive chemical elements that do not have a practical purpose. They are sometimes the products of nuclear processes, such as nuclear fission.

Reforestation is the restocking of existing forests and woodlands which have been depleted, with native tree stock.[1] The term reforestation can also refer to afforestation, the process of restoring and recreating areas of woodlands or forest that once existed but were deforested or otherwise removed or destroyed at some point in the past. The resulting forest can provide both ecosystem and resource benefits and has the potential to become a major carbon sink.

**RICHTER SCALE:** The Richter magnitude scale, or more correctly local magnitude ML scale, assigns a single number to quantify the amount of seismic energy released

by an earthquake. It is a base-10 logarithmic scale obtained by calculating the logarithm of the combined horizontal amplitude of the largest displacement from zero on a Wood–Anderson torsion seismometer output. So, for example, an earthquake that measures 5.0 on the Richter scale has a shaking amplitude 10 times larger than one that measures 4.0. The effective limit of measurement for local magnitude is about  $ML = 6.8$ .

**RISK:** is a concept that denotes a potential negative impact to some characteristic of value that may arise from a future event, or we can say that “Risks are events or conditions that may occur, and whose occurrence, if it does take place, has a harmful or negative effect”.

Exposure to the consequences of uncertainty constitutes a risk. In everyday usage, risk is often used synonymously with the probability of a known loss.

**RISK ANALYSIS:**

**Probabilistic risk assessment (PRA) (or probabilistic safety assessment/analysis)** is a systematic and comprehensive methodology to evaluate risks associated with a complex engineered technological entity (such as airliners or nuclear power plants).

Risk in a PRA is defined as a feasible detrimental outcome of an activity or action.

**SPECIES EXTINCTION:** In biology and ecology, extinction is the cessation of existence of a species or group of taxa. The moment of extinction is generally considered to be the death of the last individual of that species (although the capacity to breed and recover may have been lost before this point). Because a species' potential range may be very large, determining this moment is difficult, and is usually done retrospectively. This difficulty leads to phenomena such as Lazarus taxa, where a species presumed extinct abruptly "re-appears" (typically in the fossil record) after a period of apparent absence.

**THERMAL POLLUTION:** Thermal pollution is a temperature change in natural bodies of water caused by human influence. The temperature change can be upwards or downwards.

**TORNADO:** A tornado is a violent, rotating column of air which is in contact with both the surface of the earth and a cumulonimbus cloud or, in rare cases, the base of a cumulus cloud. Tornadoes come in many sizes but are typically in the form of a visible condensation funnel, whose narrow end touches the earth and is often encircled by a cloud of debris.

**TOXIC WASTE:** Toxic waste is waste material, often in chemical form that can cause death or injury to living creatures. It usually is the product of industry or commerce, but comes also from residential use, agriculture, the military, medical facilities, radioactive sources, and light industry, such as dry cleaning establishments. -

**TRIAGE:** A rapid method utilising simple procedures to sort affected persons into groups, based on the severity of their injury and/or disease, for the purpose of expediting clinical care to maximise the use of available clinical services and facilities.

**TSUNAMI:** A tsunami (pronounced) is a series of waves created when a body of water, such as an ocean, is rapidly displaced.

**VOLCANO:** It is an opening, or rupture, in a planet's surface or crust, which allows hot, molten rock, ash, and gases to escape from below the surface. Volcanic activity involving the extrusion of rock tends to form mountains or features like mountains over a period of time.

**VULNERABILITY:** Vulnerability is the susceptibility to physical or emotional injury or attack. It also means to have one's guard down, open to censure or criticism; assailable. Vulnerability refers to a person's State of being liable to succumb, as to persuasion or temptation (*see Thywissen 2006 for a comparison of vulnerability definitions*).

**WATER POLLUTION:** It is the contamination of water bodies such as lakes, rivers, oceans, and groundwater caused by human activities, which can be harmful to organisms and plants which live in these water bodies.

# Contact Us

For more information on *Hand Book for Capacity Building of Civil Defence and Sister Organisations*

Please contact:

Sh. J.K. Sinha, IPS (Retd.)

**Member**

National Disaster Management Authority  
NDMA Bhawan, A-1 Safdarjung Enclave,  
New Delhi-110 029

Tel: +91-11-26701740

Fax +91-11-26701754

Email: [jk\\_sinha2001@yahoo.com](mailto:jk_sinha2001@yahoo.com)

Web: [www.ndma.gov.in](http://www.ndma.gov.in)

# PREPARED Communities SECURED Country

**T**he Hand Book is designed to meet the increasing need for training a critical mass of master trainers. It covers various aspects of disaster preparedness and management in a user friendly manner supported by a large number of learning aids. It is a flexible structure so that each section can be detached, further developed and used as an autonomous unit and a standalone module for a particular clientele.

**O**rganisations like Civil Defence need adequate number of competent, proactive, committed and highly skilled persons to work in an open, informed, participatory environment with focus on team work. Only training and retraining on regular basis could promote such professional, attitudinal and behavioural changes. It can sustain their interest, level of motivation and keep them connected with the cause and the community.

