



TRAINING MODULE ON MANAGEMENT OF CROWD AT LARGE CONGREGATIONS



Resilient India : Disaster free India

National Institute of Disaster Management
(Ministry of Home Affairs, Government of India)



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Training Module on Management of Crowd at Large Congregations

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Foreward

Our country has a tradition of various fairs and festivals which attract a large number of people at public places. Besides this, various congregations for entertainment, sports and political reasons, etc., also happen quite frequently. Such crowd and gatherings are potential threat for disaster unless they are well regulated, managed systematically. In the past, various incidents of stampede have occurred owing to poor crowd management. It is the responsibility of law and order machinery of the state to ensure proper crowd control and related safety and security issues. Crowd management is a professional work which requires proper planning and implementation strategy.

National Institute of Disaster Management (NIDM) has taken a lead in this field and has come out with a training module on crowd management. The present module discusses various aspects, challenges and issues in managing crowd. As major impact of stampede is death due to asphyxia, the module also talks about medical response to stampede. There have been various legal provisions about crowd management, which have also been discussed in this module. Roles and responsibilities of various stakeholders in managing crowd disasters (stampede) also finds space in this module. The author of this module has tried to make it as comprehensive as possible, however, suggestions are always welcome for improvement.

We are thankful to NDMA for coming up with working paper on management of crowd and events

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of mass gathering and suggestive framework for preparation of Crowd Management Plan for Events/ Venues of Mass Gathering, which have also been consulted during the preparation of this module. We are also thankful to our reviewers Col. V.N. Supanekar, Director, Centre for Disaster Management, YASHADA, Pune and Shri Alok Sharma, IG Police, Meerut Zone for their valuable comments and suggestions, which have helped in improving the quality of this module. I also appreciate the sincere efforts made by Shri Shekher Chaturvedi, Assistant Professor, NIDM for developing this module.

I am sure this module will benefit the administrators, Police and event organizers, etc., in capacity building for crowd management effectively and efficiently.


(Taj Hassan)

Acknowledgement

First and foremost, I thank Executive Director of National Institute of Disaster Management (NIDM) for giving me this opportunity to prepare this module. I also acknowledge the contributions made by Shri Alok Sharma, IPS and Col. V N Supanekar Director CDM YASHADA Maharashtra in providing inputs and reviewing this module. I thank Prof. Santosh Kumar for the guidance provided for completion of this module. I am also grateful to people who have directly or indirectly contributed and provided help in completion of this module.

I am sure that this module will serve the district as well as Mela/ Event management administration in making efforts towards mitigation and preparing for impending crowd related disasters in their respective areas. This will not only safeguard the congregating crowd from such incidences but also help in reducing the crowd related risks.

In the end I am also thankful to almighty for providing knowledge and strength to me for completing this module.



(Sh. Shekher Chaturvedi)
Assistant Professor, NIDM

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Module at a Glance

Name : Management of Crowd at large Congregations

Developed by : National Institute of Disaster Management (NIDM), Delhi

Total Number of sub-modules : 12

Target Audience : Senior & Middle level officials from various line departments of state governments such as Revenue & Disaster management, Police, Health, PWD, Road & bridges, Transport, Fire & Emergency Services, SDRF along with officials from district administration, Civil Defence & home Guards and NGOs

Training programme on the basis of this module requires :

Training Days – 3 days

Training Hours – 20-21 Hours

Trainers required: At least 2 for entire duration with few external resource persons for specialized sessions

Training Hall with sufficient number of chairs and tables to be placed to facilitate group exercise

Training Materials: Corresponding District DM Plan, QRT/ Crisis Plan, Incident/ Event Plan (if any), Location Map, Medical Plan, Information dissemination plan.

Total Pages – 63

Module prepared by : Shri Shekher Chaturvedi, Assistant Professor, NIDM

Who Shall Use This Module

This module may be used by a trainer involved in conducting such courses. Besides such trainers, this module may also be used by District administration, Mela or Event management administration, Local Bodies like Municipality and Panchayats

How to Use this Module

This module will provide the potential users with the objectives of the course, target audience, course structure, training methodologies and resource materials etc. The feedback for this course may be based on existing format of DoPT or as is being used by the concerned host organization. Self-assessment of achieving the learning objectives of each sub-module will guide the trainer to reach the ultimate goal of this module.

Trainer's Guide

The trainer/facilitator/course director may find the following tips useful for smooth conduct of the training.

- **General**
 - entry behaviour of participants through brief questions
 - Laying down some ground rules such as putting mobile phones on silent mode, if required receiving the urgent/important phone calls outside the room,
 - Assimilating training material before start of the course
 - Introducing the course brief to participants
 - Making them feel at ease during the sessions
 - Introducing case studies relevant to the course and preferably from local area during the course
 - Providing entire reading material in soft to participants before beginning of the course or latest by end of first day. If possible, reading material must be in Hindi or English.
 - Training hall must be well lit-up
- **Training Specific**
 - Recapitulation of proceedings of previous day in the beginning of each day except first day.
 - Engagement of participants during the sessions must be ensured
 - Same district participants must be grouped together.
 - Maps and visual aids must be visible to all.

Module of Training Programme on Management of Crowd at Large Congregations

Introduction

The recurring stampedes at places of mass gathering, including religious places, railway stations, sports/social/political events etc. are a great concern. The population explosion, urbanization and a large number of people visiting religious places, malls, etc. has increased the probability of such events. Keeping this in view, there is certainly a need for an integrated and structured approach to crowd and disaster management at public places. Crowd disasters, in general, are human-induced disasters which can be completely prevented with proactive planning and flawless execution by dedicated groups of well-trained personnel. As crowd disasters are local events, disaster management is primarily the responsibility of the organizers and local/district administration with support, guidelines from the state and the national authorities. As stampede is the major incident which can occur at places of large congregations/ gatherings, the module talks about mainly stampede as a disaster in addition to crowd management challenges and techniques.

What is Stampede?

A stampede is an act of mass impulse among a crowd of people in which they collectively begin running with no clear direction or purpose. In general, the term human stampede is applied to a sudden rush of a congregated, active, polarized group of people, which is basically heterogeneous and complex, resulting in many injuries and death mainly due to suffocation and trampling. The worst stampede in recorded history took place in Chongqing, China, during World War II. Japanese Bombing of the city on June 6, 1941, triggered mass panic at an air raid shelter, killing approximately 4,000 people, most of them by suffocation. In India, as well, many incidents of stampede have occurred in the past. Table below, lists some of recent crowd disasters in India.

Table 1: Some Recent Crowd Disasters in India

Sr. No.	Place	Date	Impact
1.	Chennai, Tamil Nadu	8 August, 2018	At least two people were killed and 41 injured, while entering to have a last glimpse of former Chief Minister of Tamil Nadu Muthuvel Karunanidhi at the Rajaji Hall in Chennai, India
2.	Bihar Sharif, Bihar	27 May, 2018	At least 58 people were injured in the Bihar Sharif train station after an apparent earthquake caused panic among the passengers
3.	Rohtas, Bihar	10 January, 2018	One person died and at least 4 were injured in Rohtas, Bihar during an army recruitment drive when the crowd waiting rushed through the gates to get inside.
4.	Begusarai, Bihar	4 November, 2017	Three women died, and at least 10 other people were injured, on the banks of the Ganges in Simaria Ghat of Begusarai, Bihar during Kartik Purnima
5.	Mumbai, Maharashtra	29 September, 2017	At least 22 people were killed and hundreds were injured in a stampede that broke out following heavy rains in a footbridge between Parel and Elphinstone road stations in Mumbai, India
6.	Gangasagar, West Bengal	14 January, 2017	Six people died while trying to board vessels to Kolkata, ahead of high tide, after a religious festival on the island of Sagar

Sr. No.	Place	Date	Impact
7.	Varanasi, Uttar Pradesh	15 October, 2016	At least 24 people were killed near the Rajghat Bridge when more people than the expected number were heading towards a religious retreat, causing a crush, and later a stampede due to rumors that the bridge had collapsed
8.	Baidyanath Temple, Jharkhand	15 August, 2015	11 people died and at least 50 more were injured when people rushing the queue crushed those who fell.
9.	Rajahmundry Andhra Pradesh	14 July, 2015	At least 27 pilgrims died in a stampede on the banks of the Godavari River in the southern Indian state of Andhra Pradesh. The Hindu pilgrims had gathered to take a dip in the river at the start of the Maha Pushkaralu festival
10.	Dussehra Maidan, Patna, Bihar	3 October, 2014	32 people died in a stampede, which occurred when people were returning after watching the "Ravan Vadh" ceremony at the Bihar capital's main Dussehra event at Gandhi Maidan where a huge crowd had gathered to witness the event.
11.	Malabar hill, Mumbai, Maharashtra	18 January, 2014	18 people were crushed after the gates of the house, where the body of Syedna Mohammed Burhanuddin (spiritual leader of Dawoodi Bohra) was kept, were closed. Around fifty-six were injured in the incident.
12.	Ratangarh, Datia, Madhya Pradesh	13 October, 2013	121 people died in a stampede on a bridge where a section of railings broke
13.	Railway Station, Allahabad, Uttar Pradesh	10 February, 2013	36 people died in chaos in boarding train

Sr. No.	Place	Date	Impact
	(During Maha Kumbh Mela)		
14.	Sabarimala, Kerala	14 January, 2011	102 pilgrims lost lives and several injured at a stampede
15.	Ramjanaki Temple, Pratapgarh, Uttar Pradesh	4 March, 2010	65 (nearly all women and children) died in local ashram
16.	Chamunda Devi temple, Jodhpur, Rajasthan	30 September, 2008	249 people died at the temple in Mehrangarh Fort
17.	Naina Devi temple, Himachal Pradesh	3 August, 2008	138 people died in a stampede in Bilaspur
18.	Wai, Satara, Maharashtra	25 January, 2005	293 died during Shri Kalubai Yatra Mandhardev
19.	Nasik, Maharashtra	27 August, 2003	29 pilgrims died during Kumbh mela processions
20.	Charbagh Railway Station, Lucknow, Uttar Pradesh	28 September, 2002	19 people died on stairs
21.	Sabarimala, Kerala	14 January, 1999	52 pilgrims lost lives and several injured in a stampede at the hill top at Pamba
22.	Uphaar Cinema, Delhi	13 June, 1997	59 people died in trying to come out of a smoky cinema hall.
23.	Baripada, Odisha,	24 February, 1997	206 people died in fire at a religious congregation
24.	Dabwali, Haryana	23 December, 1995	446 died in a fire at a school function held in a shamiyana (tent)

Analysis of the above table shows that majority of the stampedes have taken place at religious places, wherein large number of people from different walks of life, congregate. Railway stations and school functions are other areas, according to the above table, which need attention for preventing crowd related disasters. School accidents take place in the absence of proper evacuation plan with respect to fire hazard. Such accidents take place due to lack of (i) understanding of crowd behaviour, (ii) coordination, (iii) clear roles & responsibilities of various stakeholders and (iv) proper planning on the part of organizers.

Main behavioural reasons of Stampede

The two major behavioural reasons of any stampede are anxiety and panic. Panic can appear to come from nowhere at all, but all that stampedes need, is a small trigger caused by panic. Nervous people start behaving in a different manner and other people act in the same manner without giving it a thought. By behaving in such a manner, they decrease their chance of survival and become victim of stampede.

Panics and stampedes can generally be broken down into two categories: one, where people rush to acquire something of value – say a better seat in a theater or seat in general compartment of train or a chance to get a glimpse of a celebrity or favourite star during an event; and second where people run away to save their lives from impending danger such as fire in an area with limited escape route. Both forms of behavior can lead to a human stampede and the deaths of hundreds of people.

Crowd disasters are mostly resultant of uncoordinated rush or push of people, who are thinking only of their own survival, which is a typical human behaviour, while many stampedes are also noted for those, who try to calm the panic, help those who have already fallen or aid the weakest to escape the crowd.

The prediction of the movement of people in a panic situation, what causes a crowd to panic and how they react in a panic, is still a developing science. But there are some common factors in many crowd related disasters.

Need of the module :

Recently, it has been seen that not only incidents of stampede have increased but there has been considerable increase in loss of life also due to such incidents. Capacity building of various stakeholders viz. administrators, event organizers, etc. through training and awareness generation can undoubtedly play an important role in reducing risk due to crowd disasters (stampede). Training on this aspect has not yet been taken up in the country. Hence NIDM, a

statutory body constituted by the Disaster Management Act 2005, which has been mandated to conduct training courses, workshops/ seminars, do research, documentation and awareness activities in the field of disaster management, took this initiative to conduct training courses on this important aspect in order to sensitize the concerned agencies about ways to reduce the risk of stampede through various crowd management tools. The institute has developed this module in order to streamline the training on this aspect.

Aim & Objectives of the Module :

The aim of the module is to sensitize the participants including administrators, police and other stakeholders about various practices of preparedness and response, with respect to stampede and equip them to use such tools for reducing the risk of such incidents. At the end of the course, participants will be able to:

- List measures being taken for reduction of crowd related risk.
- Demonstrate new methodologies of crowd management.
- Explain various tools of crowd management.
- Explain the roles and responsibilities of various stakeholders in cases of stampede.

Target group:

The target group for such courses is Senior and middle level officials from state government departments of Police, Revenue and Health; officials from line departments of district administration, Administration of temple and other religious places, etc. The course may also be attended by NGOs and other stakeholders, who would be directly, involved in preparedness or response activities of any event of mass gathering.

Expected Outcome:

The expected outcome of this course would be to

- Provide information about the new methods and management principles for managing crowd disasters;
- Enhance behavioural shift by sensitizing stakeholders about systematic approach to crowd management; and
- Improve the capacity of professionals by making them informed

This would not only strengthen the stakeholders with tools of crowd management but also enable the professionals to minimize the risk of stampede at any event of mass gathering.

Session I : Inaugural Session

Duration : 45 minutes

Methodology : Interaction

Session Objectives : At the end of the session participants will be able to

- Interact with fellow participants
- Describe the course objectives
- Describe the course plan

The first session of the course would be a formal inaugural session. This session will start with welcome of the participants and the dignitaries by the course coordinator followed by sharing of ideas by the dignitaries. A brief introduction of the participants along with their expectations from the course would form an important part of this session.

The course is an intensive three day programme aimed towards discussing the concepts, case studies and methodologies for crowd management in order to minimize stampede risk. The course aims to provide opportunities to all participants to share experiences and lessons learned. Active participation is encouraged through exercises and general discussion with content experts and colleagues. NIDM hopes that it will be an enjoyable and enriching experience for both the participants as well as trainers.

How to introduce :

Find someone in the room that you do not know. Pair off with that person and interview each other briefly to learn the information about your partner listed below. Take no more than 3 minutes for each interview. After you interview one another, be prepared to present your partner to the group. Be as concise and clear as you can.

Guiding Points

- i) Name & Organization
- ii) Years of Experience in Disaster Response/ Assessment of Loss
- iii) Chief Objectives or Expectations from this training programme
- iv) Something interesting about the person that is not obvious to the group (might be a special interest, sports achievement, favourite pastime or anything interesting) which you feel would help us to know the person better.

Session II : Institutional Mechanism of Disaster Management

Duration : 60 minutes

Objectives of the Session : At the end of the session participants would be able to

- Define Institutional Mechanism for disaster management
- Explain roles of different institutions/ agencies in managing a disaster

Methodology : Lecture, Interaction

India has a well-defined administrative structure for managing disasters extending up to the village level. In our federal system of governance, in the aftermath of a disaster, the primary responsibility for undertaking the disaster management activities rests with the concerned State Governments. The role of the Central Government is supportive, in terms of physical and financial resources and complementary in sectors such as transport, early warning systems, etc.

The Disaster Management Act 2005, has laid down a three tier institutional structure for disaster management at the national, state and district levels in the form of National Disaster Management Authority (NDMA), headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers and District Disaster Management Authority (DDMAs) headed by District Magistrate/ District Collector and Co-chaired by Chairperson of concerned Zilla Parishad. National Disaster Management Authority (NDMA), as the apex body, is mandated to lay down the policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters. Similar mandate have been given to SDMAs. The District Authority is mandated to act as the district planning, coordinating and implementing body for disaster management and to take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National and the State Authorities.

The role of various other agencies for disaster management is as under:

National Level

National Crisis Management Committee (NCMC)

At the National Level, the Command, Control and Coordination of the disaster response is overseen by the National Crisis Management Committee (NCMC) under the Cabinet Secretary. NCMC issues guidelines from time to time as required for effective response to natural disasters. All Ministries/Departments/Agencies at the national level are to comply with the instructions of NCMC.

Ministry of Home Affairs (MHA)

The Ministry of Home Affairs is the nodal agency at the National level for coordination of response and relief in the wake of natural disasters (except drought, pest attacks & epidemics). MHA provides financial and logistic support to the State Governments, keeping in view, their resources, the severity of the natural disaster and the capacity of the State Governments to respond in a particular situation.

National Executive Committee (NEC)

NEC under the Union Home Secretary coordinates response in the event of any threatening disaster situation or disaster. NEC may give directions to the concerned Ministries/Departments of the Govt. of India, the State Governments and the State Authorities regarding measures to be taken by them in response to any specific threatening disaster situation or disaster.

Other Central Ministries/Departments

The other concerned Central Ministries/Departments/Organizations render Emergency Support Functions (ESF) wherever Central intervention and support are needed by the State Governments.

State Level

State Executive Committee

Disaster Management including providing relief to the affected people is the primary responsibility of the State Government. The Chief Secretary as the head of the State administrative machinery and Chairperson of the State Executive Committee coordinates response in the event of any threatening disaster situation or disaster. SEC shall take instructions/policy decisions issued from time to time by the NEC and shall give directions to DDMA.

Department of Disaster Management shall be the nodal department for disaster management and Secretary of the Department /Relief Commissioner shall implement the decisions of the SEC pertaining to State level Response to natural disasters.

In addition to the police department, disaster response being a multi-agency function, other Departments of the State Governments provide emergency support in their relevant domains at the State/District levels.

District Level

Coordination

At the District level, the Collector/District Magistrate as the administrative head and Chairman of DDMA will coordinates the activities of the district-level departments in the event of any threatening disaster situation or disaster. DDMA shall take policy guidelines/instructions from the SDMA and NDMA through SDMA.

The lower administrative units of Districts viz; Subdivisions under the administrative control of a Sub-divisional Magistrate/Officer and Blocks and Tehsils under the administrative control of the Block Development Officers/Tehsildars will coordinate the functioning of the various departments in their respective jurisdiction.

The major role in crowd management lies with police department. However, the principle governing the use of force as explained in the law and in police procedures remains constant: 'force should only be used when it is absolutely necessary, it should be minimum and proportional to the situation and its use should be discontinued as soon as the danger to life and property subsides'.

Within this framework, Police has to maintain law and order during the event of mass congregation and also mitigate any untoward incident to happen. The Police department has adopted various methodologies for undertaking this task. At every site, where large crowd is expected to congregate, police personnel are deputed for crowd management and control. They identify critical points and form quick response teams for effective crowd control at these critical points. Many times, they divide the area into small sectors so that they can be managed effectively and use Police wireless to have communication within each sector. At various places, Police also involve trained community members and form Gram Suraksha Dal and Mohalla Committees to manage the congregating crowd at any event. At the Naina Devi temple, police had quick response team and had involved NGOs and other committees such as Temple sector team and Langar committee for managing

the large number of pilgrims coming during the Shravan Mela. During the incident, these committees helped in sending survivors to hospitals, organizing medicines and other such activities.

After the session on Institutional Mechanism, participants will be exposed to the sessions on Crowd: Its characteristics, causes and trigger, control measures, Incident Response System: its role in Crowd management, Health care for stampede victims and survivors, various legal provisions and an exercise for crowd management planning. These sessions have been dealt with in detail in following pages.

Session III : Crowd and Its Characteristics

Duration : 60 minutes

Objective of the Session : At the end of the session, participants will be able to

- Explain what is crowd
- Define crowd characteristics
- Explain the difference between crowd and a mob

Methodology : Lecture, Discussion

The session would begin with the definition of crowd and its characteristics. It will also deal with the issues when a crowd transforms into a mob.

A crowd¹ is a group of people gathered together usually for a common purpose based upon emotions. The crowd often acts in a spontaneous and unplanned manner. Crowd can be classified into major four forms viz. Casual, cohesive, expressive and aggressive.

Mob is generally defined as an unruly crowd. The behavior of crowd turns into mob behavior when they consider that the access is barred, perceive that rules have been breached, their rights have been curtailed, they fail to work as an organized group and excessive force is applied on them.



Source: www.bbc.com/news/world-south-asia-12196178

Gustave Le Bon, who was the first to study the phenomenon of crowd, found that crowd actions are primarily based on three features namely 1) Anonymity, which is a sense of dominance coupled with loss of responsibility. This leads to primitive, emotional and unreasonable behaviour; 2) Contagion which means infection and brings forth the fact that how easily the unreasonable behaviour spreads within the crowd; and 3) Suggestibility which indicates the behaviour of the crowd where it becomes flexible to suggestions made by influential sources and behave homogeneously.

According to John Paul II, the person is an integrated human being, who thinks, knows, loves,

¹ <http://dictionary.cambridge.org/dictionary/british/crowd>

understands and behaves intelligently. Thus it means that crowd does not transform into mob on its own but requires a leader who can influence the crowd and instigate them. As a consequence, crowd starts following the leader blindly and behaves as a mob without even thinking of its result.

Based on illustrations given above, it can be inferred that crowd behaviour can be classified as casual, cohesive, aggressive and expressive. Casual crowd is the group of people following a leader without any specific reason but based on fellow people's behaviour. Cohesive, as the name indicates, if crowd gathered for a specific purpose and behaving as one despite being heterogeneous. Aggressive crowd is group of people following their leader for achieving goal violently while if the group of people join hands for expressing a target then the crowd behaviour is expressive. Above characteristics of crowd can also be classified by the places of their visit i.e. at each place the people attending have different characteristics and behaviour. People visiting religious places are more cohesive as they have only one motive of having darshan of the deity. Any hinderance in this can easily distract them and persuade them to become a mob. Similarly crowd in funeral processions are also cohesive. While people attending events such as concerts, dance programmes are more aggressive as they wish to achieve their goal by any means even resorting to aggression. Controlling them needs a different set of skills. Crowd at political leaders meetings, political processions etc. are mostly casual which at times become aggressive. Striking industrial workforce comes under expressive crowd as they gather for a single purpose of getting their demands met. Such crowd can easily be turned aggressive and become mob.

Session IV : Crowd Management: Issues & Challenges

Duration : 90 minutes

Objective of the Session : At the end of the session, participants will be able to

- List the issues of Crowd Management
- List the Challenges of Crowd Management

Methodology : Exercise, Discussion

The session would elaborate upon the basic issues of Crowd management during any occasion. There are four types of conditions that can create crowd management problems:

- 1) Problems created by a crowd from within;
- 2) Problems created for a crowd from outside;
- 3) Environmental catastrophe;
- 4) Rumor and
- 5) Fatigue experienced by Pilgrims increasing their anxiety. These threats must be considered by those responsible for managing crowds.



Source: https://en.wikipedia.org/wiki/2011_Sabarimala_stampede

People attending the event have different characteristics and behaviour. People visiting religious places are more cohesive as they have only one motive of having darshan of the deity. Any hindrance in this can easily distract them and persuade them to become a mob. Similarly crowd in funeral processions are also cohesive. While people attending events such as concerts, dance programmes are more aggressive as they wish to achieve their goal by any means even resorting to aggression. Controlling them needs a different set of skills. Crowd at political leaders meetings, political processions etc. are mostly casual which at times become aggressive. Striking industrial workforce comes under expressive crowd as they gather for a single purpose of getting their demands met. Such crowd can easily be turned aggressive and become mob.

Methodology of management of crowd with above mentioned behaviour needs certain characteristics on the part of managers. This includes patience, anticipation, prior tie-up with other important stakeholders and knowledge about terrain and history of

the events. Important elements on planning for crowd management are explained below:

1. First factor is movement of the crowd: The movement of crowd leading to the entry point must be orderly and coordinated and must be in queues. Many agencies use long zig-zag queues with in between holding points to let the management be better of the influx of the crowd without creating problem for the crowd. This also gives time to the authorities to anticipate and plan according to the situation. It also prevents the potential hazard of a mob craze-the sense of urgency causing a rush toward an entry point. This sense of urgency or anxiety is the crucial factor that must be removed.
2. Another factor which can lead to unmanaged crowd behaviour is the fatigue experienced by congregated crowd due to delay and time lapse, in achieving their aim for which they have assembled. This delay in achievement of their aim may be due to terrain, sentiments, social bondage, etc. This must be considered or otherwise it may lead to stampede. This may be managed by providing them with proper drinking water enroute, enabling them to form groups and control their anxiety by providing them with route map, leaving them in zig-zag pattern to reach the destination, If it is a temple site, playing TV programmes and Bhajans at the base camp and having CCTVs at every vintage point.
3. Third major issue regarding the crowd management is the awareness of people gathering for the event and also those who manage the event. Although schools, governmental and social service agencies prepare us to confront many situations which pose serious threats to our personal safety through Fire drills for effective escape procedures; driver education courses to encourage safe driving; and first aid for saving lives, yet at the time of crisis we tend to overlook these preparations. There is little to guide the public to anticipate and respond to danger signals in crowds. Education about crowd dynamics and the role of individuals in crowds is needed for effective crowd management. The consequences of the various modes of individual and groups behavior should be accorded equal importance with other safety programs by governmental, educational and public service agencies. The need of the hour is to include this safety concern with other such concerns which are taught to the public.
4. The media can also play a significant role in public education by promoting special features, programs, and public service announcements relating to crowd safety and personal and group responsibilities. They can help discourage present safety hazards at large events such as the use of open flames and firecrackers. They can

also monitor the crowd management techniques of camps and en-route at indoor and outdoor events for their audiences. Camps and en-route, too, can educate the public by publicizing and enforcing their house rules and by setting a courteous, professional level of conduct for their staff.

Session V : Crowd Management: Causes & Trigger

Duration : 90 minutes

Objective of the Session : At the end of the session, participants will be able to List the causes of Crowd Management

Methodology : Exercise, Discussion

During the session on causes and trigger for Crowd related disasters, participants will be exposed to various categories which can lead to a crowd disaster (stampede). Major behavioural causes for any stampede to occur, depend largely on crowd behaviour of anxiety and panic. However, this session would deal with broadly 6 categories of causes viz. Structural, Fire/Electricity, Crowd Control, Crowd Behaviour, Security and Lack of coordination between various stakeholders.

◆ Structural

- Structure collapses
- Barricades/ bamboo railings/wire fence/ Metal barrier collapse
- Makeshift bridge collapses
- Temporary structure collapses
- Collapse of railings of the bridge caused by panic triggered by rumours.
- Barriers on the way
- Poor guard railings, poorly lit stairwells
- Windowless structure, narrow stairs
- Narrow and very few entry/exits
- Absence of emergency exits
- Difficult terrain (famous religious sites built on top of hills that are difficult to access)
- Narrow streets with illegal vendors on sides; sloped gradient; bad weather leading to crushing
- Slippery/muddy roads

◆ Fire/Electricity

- Fire in a makeshift facility or a shop
- Cooking in a makeshift facility
- Wooden structure/ quick burning acrylic catching fire
- Fire at illegal structure
- Non-availability of fire extinguisher/fire extinguishers not in working condition
- Unauthorized fireworks in enclosed places
- Inappropriate points of manufacturing and sale of fireworks
- Building and fire code violations
- Elevators catching fire, people on higher floors panic, steep stair designs
- Electricity supply failure creating panic and triggering a sudden exodus
- Illegal electric connections
- Inappropriate fittings such as MCB, Aluminum wires instead of copper wires etc.
- Short circuit from electrical generator, (synthetic) tent catching fire, unauthorized construction surrounded by high brick walls preventing evacuation

◆ Administrative or Managerial Measures

- Sudden opening of entry door
- No access control
- Closed/locked exit
- Reliance on one major exit route
- Limited holding area before the entrance
- People allowed in excess of holding capacity due to overselling of tickets for an event
- Underestimation of audience, staffing, services
- More than anticipated crowd at store/mall/political rallies/ examinations/ religious gatherings/ public celebrations
- Uncontrolled parking and movement of vehicles
- Callous indifference in regulating traffic
- Poor Management

◆ Crowd Behaviour

- Mad rush to exit/parking space
- Sudden flow of people in reverse direction
- A wild rush to force the way towards entrance/exits
- Crowds attempting to enter a venue after the start/closing time
- A collision between large inward flows and outward flows

- Free distribution of gifts/ toys/ food/ Prasad/ alms/ blankets/ cash/ clothes triggering a surge and crush
- Rush during distribution of disaster relief supplies
- Sudden mass evacuation because of a natural disaster
- A large number of pilgrims trying to board a ferry for a sacred island site
- Mad rush to leave a school
- Tussle to catching a glimpse/autograph of a celebrity
- Rumours of landslide caused by rains leading to rush down a narrow stairway
- Angry crowd due to delay in the start of the event/late trains
- Last minute change in platform for train arrival/departure resulting in lots of movements within short time window
- A large (much more than expected) anxious and competitive crowd gathering because of limited period promotional events at malls
- Rush to get covered/free/unnumbered seats at the venue
- Scramble to get event tickets
- Crowd trying to re-enter the venue
- Religious leaders taking a route in violation of the existing/ in-force
- Unruly and irresponsible crowd behaviour

◆ Security

- Security agency firing/teargas/using force leading to panic and stampede
- Weapon brandished in the crowd
- Terrorists/separatists/extremists attack/explosions during rush hours
- Tear gas canisters fired towards exits
- Crowd forced against sharp metal fencing
- Ineptitude of the police in effectively managing the crowd and enforcing prohibitory orders
- Fights within groups of the crowd and with police, other officials etc.
- Absence of walkie-talkies for the police on duty
- Absence of public announcement systems or effective wireless system with the police

◆ Lack of Coordination between Stakeholders

- Local decision to remove barricades on administrative route to allow a small group of pilgrims
- Lack of understanding of the range of duties entrusted
- Communication delays
- Coordination gap between agencies (e.g. Commissioner / Superintendent of Police)

and District Magistrate; Forest officials, Revenue officials, Medical officers and shrine management etc.)

- Vacant/late/delayed posting of key personnel
- Inadequate water, medical assistance, public transport/parking facilities
- Poor infrastructure (Plans on paper but no implementation due to lack of funds, resources, or will)

Session VI : Planning for Crowd Management

Duration : 90 minutes

Objective of the Session : The trainer shall introduce a case study relevant to the area and trigger the discussion. At the end of the session, participants will be able to

- Define Hazard and Vulnerability of Religious place, base camp and Yatra Route and the area of gathering
- List out capacities of stakeholders of the event
- List ways to manage base camp with tools like tracking; ticket/token system for Crowd identification at base camp, Crowd's behaviour & regulation and maintenance of log books of Crowd
- List the ways for entry & exit point management on the route, base camp and area of congregation.

Methodology : Case Study/ Lecture, Exercise, Discussion

The session would be devoted to identify the capacities which would include capacities at the camps and en-route in terms of Setting up of Base camps- location, arrangements, etc., Yatra Route – Barricading, Parking, etc., Traffic Plan during Yatra, Entry & Exit Points to the base camp as well as Area of congregation, Evacuation Route & protocol and arrangements for VIP movements.



<https://www.topnews.in/law/court-asks-revised-reports-sabarimala-stampede-247690>

Participants will be given a brief about major ingredients of a base camp to be established for every event inviting large gatherings. This would give a clear picture to the participants about the benefits of the base camp in managing any event of mass gathering. A base camp should be located at a place from where the entry gate of the event is clearly visible and must have sufficient space for gathering, ticketing/ token system, medical facility, toilet system, public address system, CCTV and projectors, etc. It should have a parking space for vehicles but the location of parking space must be at a distance from base camp so that accidents could be avoided. The authorities managing the base camp must have proper training of managing mass

gathering and how to act during emergencies. The place of accommodation of outstation public must be well connected to the base camp.

Participants will also be apprised about safety aspects at camps, area of gathering and en-route. The knowledge, compliance and adherence to regulations is pivotal to providing safe environment for the public. Having a formal crowd management plan is equally as important as compliance with safety regulations. These plans should be prepared in writing and made available to all concerned so that they may understand their roles and responsibilities during any event. The format and requirements of a plan should be determined by the concerned controlling agencies.

Major aspects of a crowd management plan are as follows:

1. During any major event it is necessary to have a separate entry and exit point so that management of crowd becomes easy. Entry of people to the area of concern may be limited to manageable at any point of time. A base area may be developed wherein the entry of people may be regulated. Design of the base camp becomes all the more important. The basic principle to design an exit is the direction of exit travel. The direction of door swings, the clear passage width and the capacity of means of exit at the converge point all lead to crowd management. A study done by Seaton (1979) stated that people tend to operate doors in the direction of travel, regardless of whether the doors are labelled "push" or "pull".
2. Multiple routes should be encouraged (normal, express, emergency) with varying route gradient. This will also help in movement of special vulnerable groups (children, people with special needs etc.)
3. Individual behaviour in a crowd is sometimes influenced by the behaviour of others. Research has shown that understanding of crowd behaviour has led to community based approach for crowd control instead of force based control. It is therefore essential to identify and separate trouble creating persons at the earliest. Action should be taken immediately with tact and firmness, without inviting undue attention from the general public.
4. Inappropriate or poorly managed control procedures may lead to crowd incidents rather than preventing them. Thus procedures of crowd control should be loud and clear and as per the prevailing conditions.
5. Special attention should be given to border of the venue and the floating crowd moving there because the mischief is usually caused at such places.

6. An attempt must be made to identify the build-up and motivations of the expected crowd ahead of time to anticipate challenges.
7. There should be ample entrances and exits (including administrative/ emergency route) at the event, and they must remain unobstructed
8. There should be proper space for movement of rescue personnel during any event.
9. All concerned stakeholders must understand the history of the event in terms of numbers, crowd arrival patterns, growing popularity, type of visitors and time when crowd arrival is maximum (season, days of the week, time in the day, festivals, holidays etc.). This will enable them to design and prioritize their interventions.
10. Calculation of the capacity at the venue i.e. how many people can be present at one particular time at a given place which includes prayer & offerings time (if any) enables the authorities to work in the direction of management of entry and exit of crowd. At number of places, demand simply outstrips supply, leading to overcrowding. Because of this, there is a need for an input control.

Responsibility of crowd management requires coordinated efforts of enforcement agencies and other event managers with both agencies having accountability for providing resources for safe and successful events. The enforcement agencies can take over direction and control in emergencies and management taking all reasonable steps to assure that emergencies don't happen.

The establishment of working rules and the strict enforcement of those rules within the overall gamut of prevailing regulations would help in better crowd management.

Many agencies train their personnel in crowd management techniques and provide orientation manuals for staff and security. These manuals describe crowd characteristics, problem areas, staff functions, house rules and emergency plans and area layouts.

Important elements on planning for crowd management are explained in subsequent paragraphs.

Know Your Visitors and Stakeholders

The basic element of event/venue planning is to understand the visitors. This, however, is largely determined by the type of event (religious, youth festival, school/university event, cricket/sports event, music concerts, political gathering); season in which it is conducted; and the type and location of the venue (temporal/permanent, open/confined spaces, bus stand, rail/metro station, plain/hilly terrain).

Based on this and from prior knowledge and experience, organizers/ authorities should attempt to determine the type of crowd expected (age, gender, region, locals/visitors, people with special needs etc.). An attempt has to be made to gather information about the motives of various visitors (social, entertainment, political, religious, economic etc.) and unwanted visitors (theft, disruption, terror etc.).

Event/venue managers must identify various stakeholders and acknowledge their objectives as well. An arrangement must be made for the media personnel with timely and informative bulletins.

Capacity Planning

In India, religious places have high probability of crowd disasters due to their location, number & religious sentiments of pilgrims and awareness level of people coming to the site. Long Term Perspective is needed for infrastructure development and will depend on popularity, periodicity of event, weather, terrain, local population etc.

An attempt should be made to plan for physical or virtual locations through which each visitor must pass. This may be termed as staging points. Each staging point should have sufficient facilities for rest, food, water, hygiene. An effective way of counting/monitoring visitors passing through a staging point should be installed to regulate the flow. A close network must be made between base and each staging point to track any miscreant or missing person.

Overall location Development Plan

Long Term Perspective is needed for infrastructure development and will depend on popularity, periodicity of event, weather, terrain, local population etc.

Staging Points (queue complex): Plan for physical or virtual locations through which each visitor must pass. Each staging point should have sufficient facilities for rest, food, water, hygiene. An effective way of counting/monitoring visitors passing through a staging point should be installed to regulate the flow.

Multiple routes should be encouraged (normal, express, emergency) with varying route gradient. This will also help in movement of typically vulnerable groups (children, people with special needs etc.)

Understanding Crowd Behaviour

Individual behaviour in a crowd is sometimes influenced by the behaviour of others. Research has shown that understanding of crowd behaviour has led to community based approach to

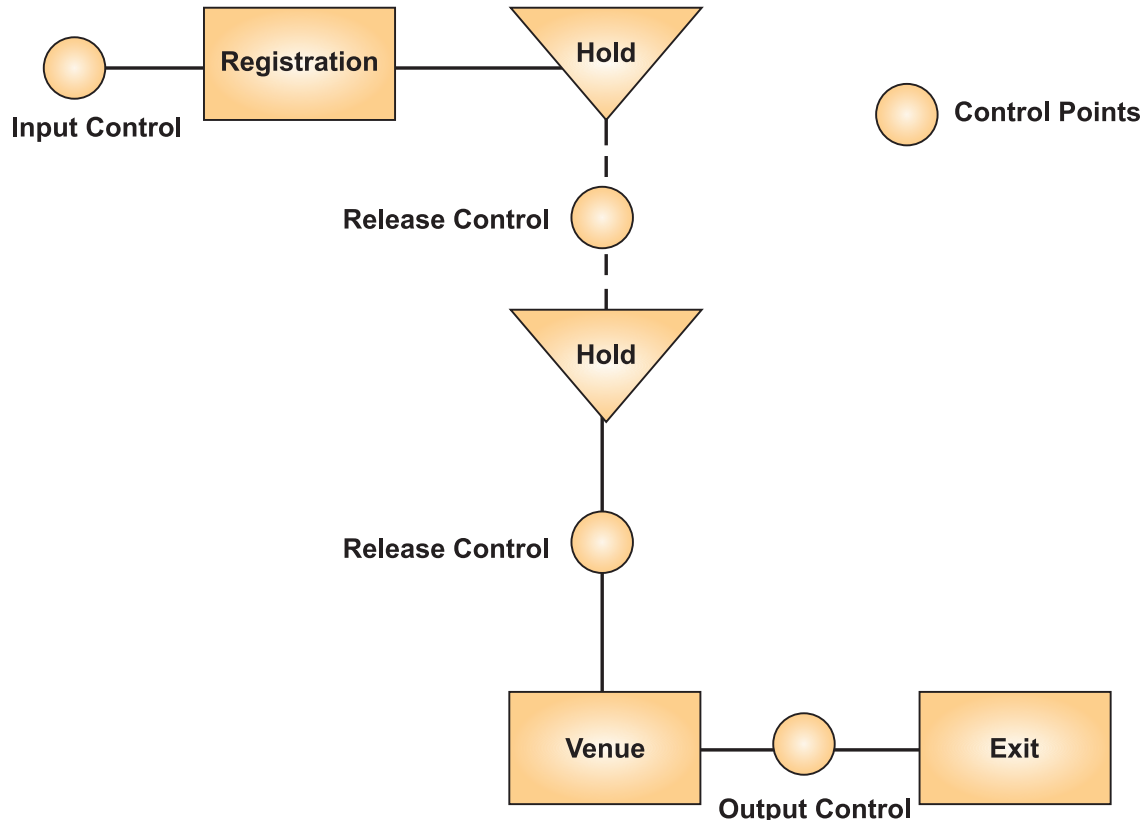
crowd control instead of force based control. It is therefore essential to identify and separate trouble creating persons at the earliest. Action should be taken immediately with tact and firmness, without inviting undue attention from the general public.

Inappropriate or poorly managed control procedures may precipitate crowd incidents rather than preventing them. Special attention should be given to border of the venue and the floating crowd moving there because the mischief is usually caused at such places.

Crowd Control

- An attempt must be made to identify the build-up and motivations of the expected crowd ahead of time to anticipate challenges
- Crowd Controlling Staff should be uniformly dressed with high visibility. They should be in a position to communicate with each other and also to the crowd.
- There should be ample entrances and exits (including administrative/ emergency route) at the event, and they must remain unobstructed
- Constant monitoring of Crowd must be done
- There should be proper space for movement of rescue personnel during any event.

Diagram below² depicts how crowd can be controlled effectively



²NDMA Guide for Administrators

Understanding the Demand

- Understand the historical numbers, crowd arrival patterns, growing popularity, type of visitors
- Identify mass arrival time i.e. when crowd arrival is maximum (season, days of the week, time in the day, festivals, holidays etc.),
- Have knowledge of public transport timetables
- Advance registration and
- Better base camp management

Understanding the Supply

- Calculate the capacity at the venue: seating capacity; worships, offerings or prayers possible per hour etc.
- Calculate the capacity of holding areas/ queue complex
- At number of places, demand simply outstrips supply, leading to overcrowding. Because of this, there is a need for an input control i.e. restricting the number of entries. A mandatory registration process makes this possible. The other possibilities are through influencing arrivals.

With demand outstripping supply, queues cannot be avoided. At times due to location's topographic constraint and religious belief, it becomes difficult to increase crowd inflow. In such cases, since the wait is unavoidable the only possibility is to make it comfortable. The crowd psychology studies (e.g. Chase et. al. 2010) recommend the following softer aspects of managing queues:

- Do not overlook the effects of perceptions management
- Determine the acceptable waiting time for visitors
- Install directions that clearly depict the way to the visitors
- Modify visitor arrival behaviour (e.g. inform non-peak hours)
- Keep resources not serving visitors out of sight
- Segregate visitors (by personality, age, special needs etc. to provide differentiated attention and/or service)
- Never underestimate the power of a friendly service provider.

Stakeholder Approach

- Organizers/Temple trusts, Law enforcement agencies must be involved crowd control along with Community stakeholders (NGOs, Business Associations, Schools/ colleges, Neighbourhood societies/associations/ Mohalla committees).

- Community stakeholders should be encouraged to take ownership in events
- As it is a known fact that crowd management involves multiple agencies, it is necessary to have a unified command for unity of purpose, faster decisions/response, better coordination etc. A Unified Command allows agencies with different functional authorities, roles, and responsibilities to work together effectively without affecting individual accountability. Under a Unified Command, a single, coordinated Incident Action Plan will direct all activities.

The first aim of any Crowd Management process is to prevent a serious situation from developing. Disasters may often be prevented from happening through careful identification of causes/ threats; assessing the risks posed by them. Possible threat identification and careful planning would lead to better coordination and help the organizers reach their aim to avoid situation to go out of hand.

The session would also include a group exercise on how to perform hazard, vulnerability and capacity analysis of the area of concern. The hazard analysis in general, contains the listing of all possible hazards, their impact, time of impact, area of impact and frequency of impact. However, as the major cause of concern in this programme is stampede, participants would be insisted to focus on stampede only. They would be working in a group to perform an exercise to analyze the vulnerability and capacity of the area concern. Vulnerability of the area will depend on factors like people, area including route and event complex and environmental conditions. The capacity analysis would include the resources available, their placement and time taken to reach place of concern. This would also include resources available around the event complex and time in which they can reach the site of operation.

Session VII : Crisis Management

Duration : 90 minutes

Objective of the Session : At the end of the session, participants will be able to

- List various agencies which manage the crisis during any incident involving crowd.
- List the roles and responsibilities of various agencies which play an important role in crisis of crowd management

Methodology : Exercise, Discussion

Any incident which involves crowd has to be tackled with very delicately and swiftly. Such incidents occur without giving any warning and are based on crowd behaviour. In order to have a coordinated effort in managing crowd crisis, it is important to have clear roles and responsibilities of all stakeholders.

The role and responsibility of stakeholders involved in an event should be specified in writing and known to all prior to an event. There must be a clear understanding by all involved about the chain of command and the duties that each person has to perform. An important aid in this endeavor is an event management plan produced by the agency with the cooperation of all agencies that specifies names, duties and location of the people at the event; lines of communication; contingency plans; method of plan implementation; a checklist of personnel, equipment and procedures; expected crowd size and characteristics; and normal and emergency entry and exit procedures. Those with a role in planning, organizing and controlling events must find ways to:

- 1) anticipate potential sources of danger in public gatherings
- 2) take steps to prevent trouble when and where possible
- 3) be prepared to respond to trouble quickly and effectively when, and if, necessary.

Detailed roles and responsibilities have been discussed subsequently:

Role of Police

While prime responsibility of police is to enforce law and order, which stands true during crowd management also, however in the event of crowd management, it needs support from other agencies such as Fire & Emergency services, Home Guards, Civil Defence and Medical Services. The Fire & Emergency services are responsible for making surprise and routine inspections of camps and

en-route to enforce local fire safety measures, which includes capacity and safety regulations. Thus there is a need for involving fire services in advance planning of any event. Home guards and civil defence personnel may be involved in providing services at base as well as during the event.

Fire

The Fire Division is responsible for making unscheduled and routine inspections of camps and en-route to enforce local fire codes. It also has the responsibility of citing for violation of safety laws. Their authority to require safe exiting conditions, as well as to enforce capacity and safety regulations, and their relationship to other personnel should be clearly defined in advance. Fire personnel should be involved in the advance planning of an event to assure an acceptable level of compliance with fire and life safety codes.

Emergency Medical Service

A complete crowd management plan must include procedures to respond to medical emergencies. The ability to respond quickly and effectively to an emergency or a request for medical help may save a life or lessen the severity of an injury. The major cause of stampede is asphyxia which is a medical condition and hence role of medical department increases during stampede. An immediate medical attention to the affected can save lives, which is the golden hour concept. The placement of medical team must be such that it can reach the event site at the earliest. Safe passage to ambulances must be earmarked and nearest available hospital must be well informed about the event in advance so that need of doctors and medicine is met.

Temple Management Board/ Trust

Temple Management Board/ Trust is the apex body and morally responsible for all the operating functions related to temple. Trust has to take the following precautionary steps from safety point of view:

- Trust has to make provisions for multi entrance of temple, single entry or lone exit always to be avoided. These kinds of provisions help a lot, in emergency evacuation.
- Trust also should provide all the monetary support for arranging sufficient no. of cameras and screens to security staff and Police, in order to avoid any chaos, so that security staff and devotees can view the movements of other nodal points, as & when required.
- Trust should take a note of the temple operational working committee's issues and arrange to provide the recommended guidelines by laws, with respect to safety and existing capacity, in coordination with local government and allied agencies.

Police department/ Security Agency

The role of Police department and security agencies, is very crucial in order to deal with crowd management. The following steps have to be taken into their operating procedures:

- Police deptt. and appointed concerned security agencies should be well equipped with advance communication tools like walkie talkies, mobiles instruments etc.
- The key role of Police deptt. & allied agencies are to provide adequate security to the crowd, and maintain law & order in the situation when needed most/ extreme conditions.
- Another important role of Police department. is to ensure safe & secured, good clean & hygienic surroundings. The drunken people/ alcohol shops and armed personnel should not be allowed or encouraged, especially near the temple.

Operational Working Committee Staff

Temple's operational working committee staff, is in real sense, the most effective and potentially very strong task force available within the temple premises. The key roles of working committee should be as per the following:

- The operational committee staff should be able to maintain the queuing system. When the large crowd gathers, the committee staff should halt the queue motion intermittently in order to make the crowd balance, based on existing capacity of temple premises and the approaching walkway/ pedestrian path.
- The Operational committee staff members should be well trained in coordination amongst the crowd, Police, Fire deptt, Medical team and allied agencies. Through the announcements and providing updates, Committee members should be able to guide and manage the crowd, at the time of chaos.
- Committee staff members/ volunteers should be available everywhere, preferably in special dress or with separate identity on way towards temple and on the return path. There should be sufficient nodal points, from where the Staff members can provide the emergency helpline, clarify the doubts originated due to rumors etc. and help the devotees.

Local Government

Role of local government is very important, in order to deal with the crowd in such a mass. Being the governing body following are the key responsibilities of local Govt:

- Local Govt. body should establish the safety codes by determining the existing capacity and other essential attributes. These safety measures are abide through laws and enforced by the various allied agencies.

- To educate public and get them aware of safety related all relevant facts, should be the priority of local Govt. The devotees, security staff, and temple's working committee members, all should be well prepared to confront any situation, which pose serious threats to personal safety.
- To handle the crowd management, there should be specific Disaster Management Plan/ Crowd Management Planning in place. As per that, exclusive check lists to be prepared for each segment/ entity. Scenario based drills have to be conducted periodically, that will help in checking the existing security & safety mechanism in place and will also help in removal of gaps.

Devotees and Citizens

All the efforts to deal with Crowd management are meant for safety and security of devotees and normal citizen. Therefore it is essential for devotees and normal citizens to follow below mentioned guidelines:

- Devotees should follow the signals and maps displayed over the signboards; they should maintain the queuing system, listen to the announcements, be disciplined and have patience.
- Devotees should not go by rumors, in case of panic they should be able to take assistance of helpline available on their way towards temple premises and vice versa.
- Citizens should co-operate the local Government, Police, Temple Committee members/ volunteers, during drills, trainings, and awareness initiatives through participation and following the safety precautions, as per operating procedures. After all these are meant for their own benefits.

Apart from above guidelines, specific operating procedures with roles and responsibilities have to be prepared for the other important departments/ agencies. Like Fire department should train the committee staff members, to operate the fire extinguishers, same way the Health department should make necessary provisions of providing First Aid services at the appropriate locations, as & when needed. Incident Response System can also play an important role in managing the crowd. Efficient functioning of command and control is single most important component of Crowd Management. As per the best laid out practices, command and control should have unity and chain of command with built in organizational flexibility, manageable span of control, an integrated information management and communication system, media management and personal accountability.

Analysis of various disasters, including the crowd disasters, clearly brings out that there are a number of shortcomings like—

- a) Lack of an orderly risk assessment and systematic planning process;
- b) Unclear chain of command and supervision of response activity;
- c) Lack of proper communication plan and inefficient use of available resources;
- d) Lack of predetermined method/ system to effectively integrate inter-agency requirements into the disaster management structures and planning process;
- e) Lack of accountability because of ad-hoc nature of arrangements and no prior training for effective performance by the first responders;
- f) Lack of coordination between the first responders and individuals, professionals and NGOs with specialized skills during the response phase;

Keeping these facts in view, it is always necessary to have the Risk assessment of the area based on impending hazards and the vulnerability. The enclosed areas such as places of worship, must have a thorough risk assessment before the event so as to avoid any type of emergency. The risk assessment of the area concerned helps the authorities plan in a better way against any emergency and also prioritize the actions in case of emergency. Mock drills of the plan implementation may also lead to identifying the gaps in arrangements and fix them in advance.

The Crowd management plan must also include various contingencies which arise due to sudden change in prevailing situation making knowledge about history of the place and event all the more necessary when assessment of risk is being done.

The plans must be made through consultative process, which include all the stakeholders and must also clearly define roles and responsibilities of all stakeholders based on their capabilities. The accessibility of the plan must be ensured for all stakeholders.

On the lines of Emergency Operations Centre, a Site Operations Centre (SOC) can also be planned for better site management. This SOC will be also be responsible for area/sector management. In order to facilitate the site operations, SOC may opt for Watch towers, use of Un-manned Aerial Vehicle, Walky-Talky, etc.

SOC must also look into the critical points in the path leading to the site of event and plan accordingly for release points and Exit Points through which crowd. Holding areas must be equipped with proper drinking water, medicine facilities while release areas must be manned. It is important to have a clear path for responders to ensure better search and rescue during the event.

In this connection, it is informed that India has adopted the Incident Response System (IRS) for better and coordinated response to any event. In this regard, NDMA has also come out with Guidelines on Incident Response System (IRS), to overcome these deficiencies, especially in responding to any emergency. The salient features of this system are

- a) It is flexible and can be expanded and contracted as per the situation.
- b) It focusses on wellbeing of responders as well in addition to the common man.
- c) System of accountability for the incident response team members;
- d) Well thought out pre-designated roles for each member of the response team;
- e) System for effectively integrating independent agencies into the planning and command structure without infringing on the independence of the concerned agencies;
- f) Integration of community resources in the response effort and

The Organization Command Staff

The above activities will be actually carried out on the ground by Incident Response Team which comprise of Incident Commander (IC), his/her organization command staff, viz Information & Media Officer (IMO), Safety Officer (SO) and Liaison Officer (LO) with the support of operational people. The Command staff reports directly to the IC and assist him/her in discharging his/her functions. They may have assistants and may or may not have supporting organizations under them.

At the end of it, the planning, coordination, public dealing, presence of mind and patience matters a lot while dealing with the crowd.

Session VIII : Emergency Medical Service & Health Issues in Crowd Management

Duration : 90 minutes

Objective of the Session : At the end of the session, participants will be able to

- Explain how medical services responded to such disasters in recent past
- Define methods such as first aid, triage and CPR
- Explain the lessons learnt from services provided in the past in such incidents

This session would discuss about Medical services, which should be made available at the site as well as to the victims. In the golden hour, it is the medical help which gives a sigh of relief to the survivors and can save many lives. Major cause of death during a stampede is asphyxia or suffocation. A timely medical help when provided, can save many from jaws of death.



<https://www.jagran.com/photogallery-20260-3.html>

The general public is often unaware of the quality of emergency medical and ambulance service that some camps and administration provide, yet emergency medical service is one of the most critical services for any event. The amount and scope of this service is often not drilled and therefore can result in inconsistent levels of service. The lack of regulation of ambulance service has in a similar way created confusion over the standards of service that are to be expected. All of these areas need special attention by local and state officials.

Emergency medical service is the advance preparation for the treatment of unexpected life threatening situations. These preparations may include the treatment of heart attacks, strokes, drug overdose, seizures, etc. Presently there are no official requirements or standards for first aid rooms at places of public assembly. The emergency medical requirements necessary for camps and en-route regardless of size should be based on:

Type of gathering: This gives a fair idea on crowd behaviour and their expected number.

Type of event(s): Nature of the event is an important activity to know as this would lead the agencies to plan before hand with history of type of crowd and past experience of its behaviour.

Type of crowd size and Location: This would help in planning the size of base camp, sending crowd en-route and expected medical support facility,

Proximity of hospitals and medical support services Communication linkage with local hospital(s), public law enforcement agency, interior and exterior security at major events.

On-site equipment at first aid or medical facility: While the scope and implementation of basic standards for emergency medical service requires special focus during any such event involving large congregation, few of such activities are:

1. Establishment of direct radio and/or telephone communications with local hospitals, law enforcement agencies, and interior and exterior security.
2. Publicizing the location of medical rooms so they are well known to all concerned of major events.
3. Assurance that when ambulances are on standby at a major event their personnel are qualified to perform emergency medical care.
4. Training of all interior security personnel in cardio-pulmonary resuscitation (CPR).
5. The most effective crowd management clearly delineates areas of responsibility and authority and especially underscores the need for cooperation and communication between public and private parties.

Session IX : Role of Incident Response System in Crowd Management

Duration : 90 minutes

Mode of Delivery : Lecture and discussion

Objective of the Session : At the end of the session, participants will be able to

- Explain what is Incident Response System and its ingredients
- Define how IRS has been put to use for crowd management during such incidents

Incident Response System is a new system which is being adopted in responding and stabilizing of crisis. In this system there is an incident commander who has command and control over various groups who perform the actual work of management of an event such as Operations Section, Logistics Section, Planning Section, Simulation, Media, Liaison and safety. A case study of Guru-da-Gaddi, Nanded, Maharashtra, and Kumbh Mela Nashik Maharashtra would be discussed during this session. During Guru-da-Gaddi, a mass gathering accumulates at a place of worship and a three day event is organized. In 2010, first time IRS concept was used to manage this event of mass gathering. A detailed description on use of IRS in crowd management during the Guru-Da-Gaddi Tri-centenary celebration is as follows:

Incident Response System Based Disaster Management plan for Guru-Da-Gaddi Tri-Centenary Celebrations at Nanded

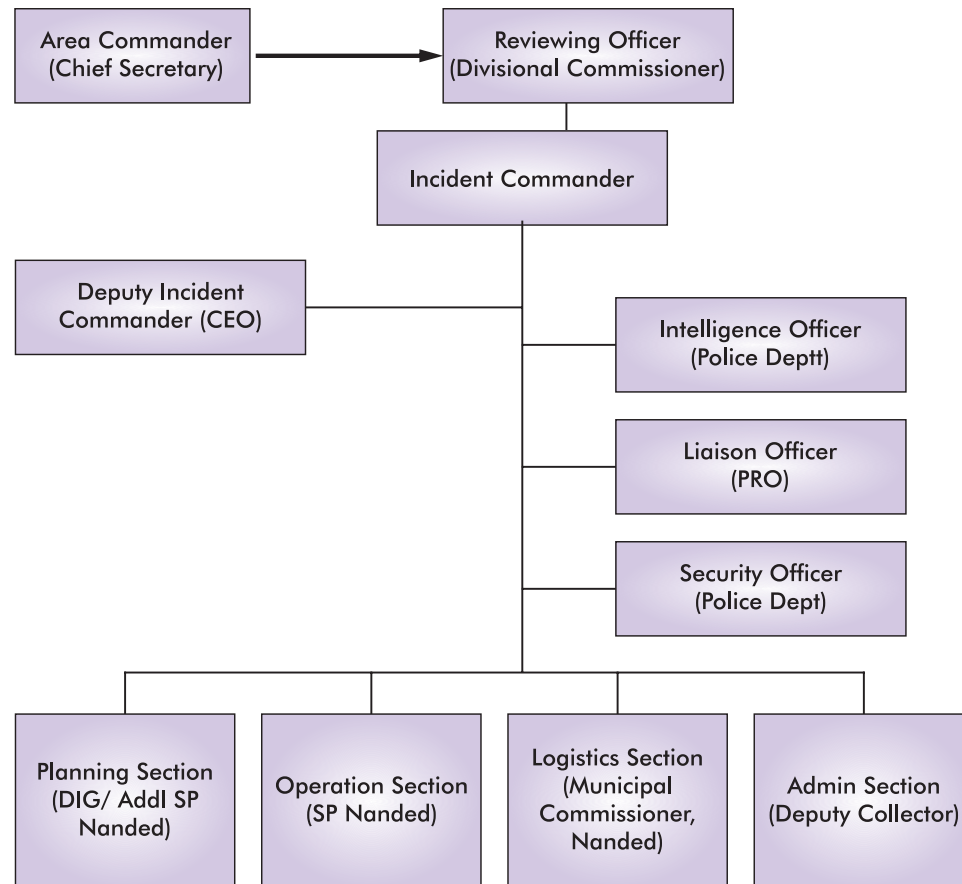
1. Tri-centenary of Guru-Da-Gaddi was celebrated during Oct - Nov 2008 at Gurudwara Nanak Sahib at Nanded. The period of function was from 27th October to 04th November 2008. During the event, pilgrimage anticipated was about 20 Lac. Population of Nanded during the event period was about 6 Lac (including the outskirts). The main city area of Nanded is congested and has insufficient civic amenities. Thus, there are likely to be problems regarding space, movement, civic amenities like provision of water, food, transportation, accommodation, disposal of sewage etc. The event also coincided with the festival of 'Diwali' further adding complexities of operations.
2. Centre for Disaster Management, YASHADA, Pune was assigned the responsibility of preparing DM Plan for the smooth conduct of the Event. After assessing the ground realities and task ahead, District Administration was advised to follow an integrated system of managing the event through Incident Command System (now Incident Response System). Since this being the first event where new concept of response management was being followed, it took

more than two months of continuous training and discussions to bring various agencies of administration on one platform and common understanding to adopt ICS for the event.

3. Simultaneously the following elements of ICS were established with District Collector Shri Mopalwar as Incident Commander. Being a planned event at the initial stage Planning Section was established followed by Operation section. The detailed plan for Response was worked out with planning and operation section chiefs under guidance of Incident commander. A brain storming session (Table Top Exercise) integrating all stake holders was conducted to ascertain efficacy of plans. The following Strategies were finalised by the IC for the event after detailed deliberations:
 - Ensure Safety and Security of all pilgrims
 - Decongestion of human and vehicle population in area of operation
 - Area of 1 km radius around the shrine will be considered as Core Area and stringent safety and security measures will be ensured
 - Ensure unhindered movement of population within the city during the period of event.
 - Response time to any incident should not be more than 3 to 5 minutes
 - Ensure fail proof communication during the event
4. Considering the above the following controlling objectives were laid down:
 - Plan and execute proper routing of the pilgrims, vehicular traffic and the VIP movement as well as movement of the general population of Nanded and adjoining areas.
 - Exercise control over the vehicular traffic entering Nanded and record the vehicle and occupant details.
 - Divert bypassing traffic suitably.
 - Ensure adequate arrangements at campsites with essential amenities provided.
 - Provide safety and security to the camps to take care of fire, anti-social activities, and any other issues that should also include provision of medical facilities, clean drinking water, sanitation and provision of hygienic food.
 - Provide for safety and security of pilgrims at Gurdwara and at all places of religious celebrations including the routes of movement.
 - Ensure safety and security of the VIPs/ VVIPs.
 - Cater for adequate response mechanism in all respects based on the likely threats and procure and deploy resources to respond to any emerging situation within the jurisdiction of the ICS, during the event.
5. This was followed by establishing Logistics and Administration Section. The details were worked out and as per requirement projected by Planning section in consultation with operation section feasibility of resource mobilisation was worked out. Based on the likely availability plan was formalised. A sand model exercise was conducted at Nanded to test the workability of plan followed by Mock Drills at various locations to evaluate the response.

6. Based on the above requirements the following basic organisation with roles and responsibilities was formed at Nanded for the event:

Outline Organisation of IRS



7. Roles and Responsibilities

- (a) Incident Commander (IC): The IC was directly responsible to conduct HVR analysis, plan the mitigation and response, demand resources, prepare for deployment of resources, execute the response plans, seek intelligence and disseminate the same appropriately, coordinate and control all executional aspects of the DM, and render necessary reports and account for expenses.
- (b) Planning Section Chief (PSC): The officer was made responsible in conjunction with Operations Section Chief to carry out HVR analysis and plan for mitigation and identify resources required for mitigation. He/ she was also responsible, jointly with the Operations Section Chief, to identify resources required for response and plan response mechanism. The officer would then pass on the requirements to the Logistic Section when the mitigation

and response plans were finalised and approved by the IC. The officer was responsible to identify location of deployment of mitigation forces and response forces. After the initial plans were made and deployments were executed, the Planning section chief was made responsible for modifying of plans including resources in conjunction with the Operational Section Chief, based on the dynamic inflow of intelligence and situations arising during the execution phase on approval of IC.

- (c) Operations Section Chief (OSC): These duties were performed by the Superintendent of Police, Nanded District. The officer was responsible for preparing mitigation and response plans and identifying the resources (manpower as well as material), jointly with the PSC and get the plans and resources approved by the IC. The deployment of resources was coordinated by him with the PSC. However, after the deployment was completed, all the resources used for tactical activities were under the direct command of the OSC and he/ she was responsible for their utilisation and effectiveness. The officer was also responsible for:-
 - (a) Prevention and management of incidents and ensuring safety and security of personnel and material during the entire event in question.
 - (ii) Anti-sabotage, anti-terrorism, anti-stampede and anti-fire measures and management of such incidents.
 - (iii) Security of all places, camps, VIPs and general public including the pilgrims.
 - (iv) Ensure prevention and management of any other natural and/ or manmade disasters and coordinate allocation, deployment, employment and utilisation of all resources required for the same.
- (d) Logistics Section Chief (LSC) : These duties were performed by the Commissioner NWMC. LSC was responsible to demand resources from higher HQ and allot/ create resources from within own jurisdiction for the initial plan and thereafter, do the same during execution phase. He also catered for the resources required by the Administration Section, which was responsible for administration of all resources mustered up, deployed and employed on the event management. The Logistics Section also catered for the financial accounting for all the resources that were required, mustered up, deployed and employed for the event, centrally and then pass on the financial effects to the concerned departments, for their further processing.
- (e) Administration Section Chief (ASC) : Duties were performed by Deputy Municipal Commissioner/ Deputy Collector (may be deployed additionally from outside the district at least one month before the commencement of event and should be co-opted in the initial discussions process from the beginning). The ASC was responsible for administration of all resources mustered, deployed and employed for the event and

also for all internal communications. The duties involved were organising lodging, boarding, rest & relief of all personnel deployed/ employed, serviceability of all the material and keeping track of all the resources that are inducted, including storage facility and accounting as well as demobilisation when ordered.

8. Operational plan:

The main aim of the Disaster Management is to save lives. Hence response to any situation has to be quick and effective. The challenges were:

- a) Prolonged Event duration
- b) Limited area of operation and congestion
- c) Multi Hazard scenario for eg stampede, fire, drowning, epidemics, accidents, violence etc

Considering the above points sector level teams (under IRS-Divisions) were created. The details of operation plan that was put into place is as under:

- A. Sector Approach: Area of operation was divided into 9 sectors based on the principle that no sector should have more than one VA (Vulnerable Area) or two VPs (Vulnerable Points) of diverse hazard probabilities

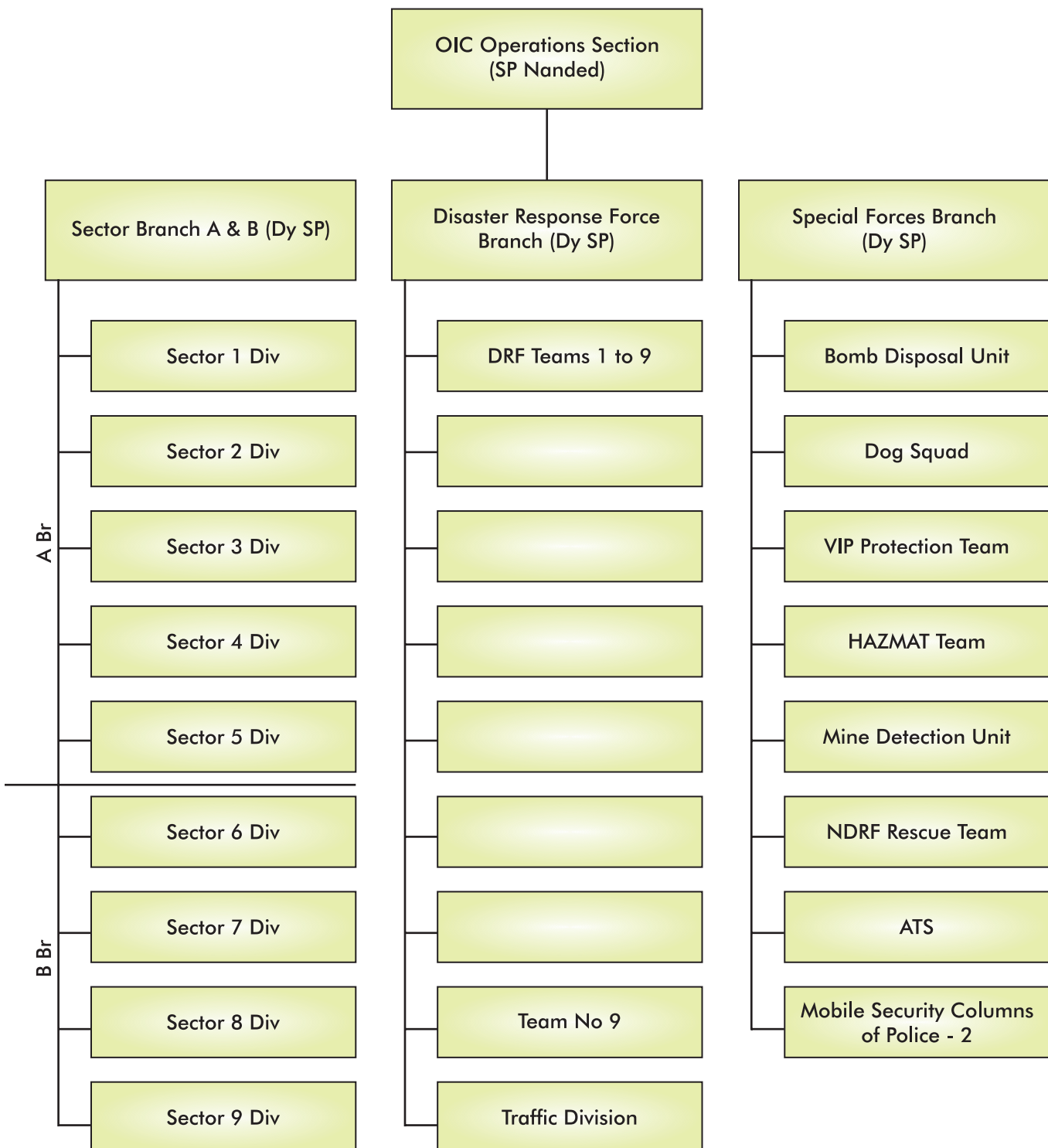
Sector I	-	Gurdwara Sector (Collectorate is part of this sect).
Sector II	-	Ghat Sector Nagina Ghat to Banda Ghat).
Sector III	-	Railway Station Sector (includes the bus depot)
Sector IV	-	Cotton Research Institute Sector (includes the place for "Samagam" and Helipad).
Sector V	-	Airport Sector.
Sector VI	-	South Camp Cluster Sector.
Sector VII	-	North Camp Cluster Sector.
Sector VIII	-	East Peripheral Camp Sector.
Sector IX	-	West Peripheral Sector.

The Sector Commanders were responsible to ensure the following:-

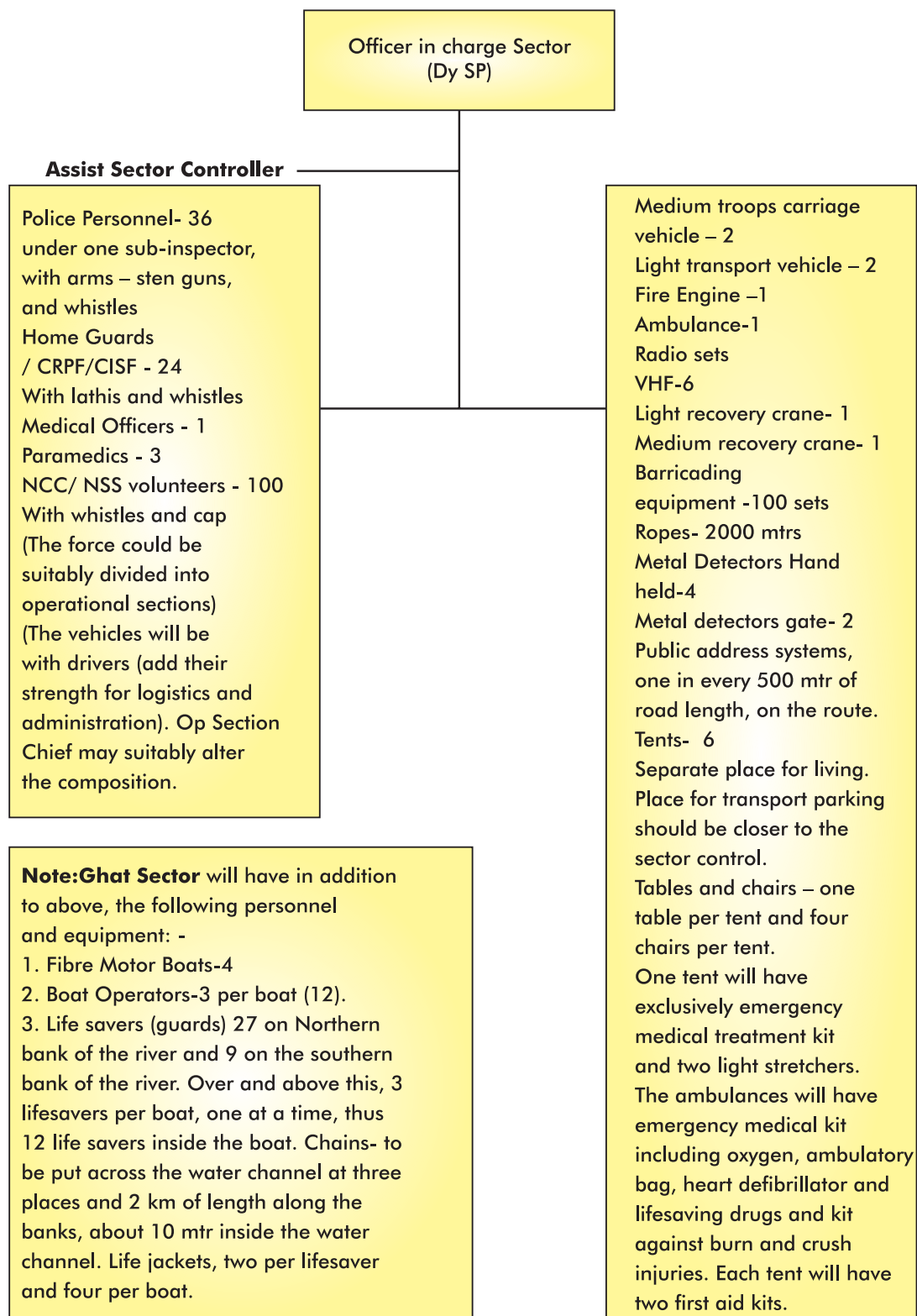
- (a) Regulating entire vehicular and personnel traffic within their sector.
- (b) Establish barricades and regulate movement of the pilgrims (particularly in Sectors I, II, III and IV) through a enclosure system.
- (c) Ensure no crowding takes place leading to stampedes.
- (d) Through announcements, warn the public of any impending dangers.
- (e) Screen the crowd at the Gurdwara and any place of worship.
- (f) Ensure the passage of the crowd is smooth and without any interference.
- (g) Remain in regular radio communication with the Operation Section Commander and

- inform progress.
- (h) Take all actions to prevent and mitigate damages/ losses in case of any incident.
 - (i) Ensure quick response and coordinate with any force deployed by the OIC operation Section.
 - (j) Ghat Sector to ensure no drowning episode takes place.
 - (k) Keep watch on anti-social elements.
 - (l) Remove accident vehicles through quick 'Panchnama'. Each sector commander will have a camera loaded for photograph, accident record form.
 - (m) Remove casualties to the nearest hospital earmarked.
 - (n) Establish roadblocks when ordered.
 - (o) Be prepared to undertake cordon and search missions.
 - (p) Keep an event diary. Even regular radio communications will be recorded. Each Sector Commander will have a telephone line and radio communication which will be manually recorded.
- B. Resources: Resource requirement for the event were planned however it did not include the civic amenities that were being planned by the Municipal Commissioner, Nanded as these were outside the scope of the DM plan. Additional resource requirement, if any, was worked out in detail by respective appointments and the same were procured through a centralised coordination system (Logistics Chief). The resource requirements also took into account the EOC at the Collectorate of Nanded District, which preferably acted as the ICS Headquarters and those of the Sector Controls.
- C. Safety, Security and Intelligence System: The safety, security and intelligence building formed an important part of the operations. The police and other intelligence agencies were activated with immediate effect by the Incident Commander, to commence collection, collation and analysis of information. The information was supplied by these agencies to the Incident Commander and the officer in charge of Operation section, from time to time.

The Operation Section detailed organogram, which was executed, is as under:



Organisation of each Sector Control (For each of the nine sectors)



Kumbh Mela Nashik Maharashtra 2015

A mass congregation event, which is held after every 4 years, was held at Maharashtra at two places Nashik and Trimbakeshwar. The approximate accumulation of people during this month long affair was more than 50 lakhs.



Every Kumbh Mela has few main days of snan wherein maximum pilgrims take a holy dip in earmarked pious kund. There is a process of taking a dip such as first Sadhus from Akhadas would take a dip and then only the dip is open for common public. This stoppage of people till the dip is open has always been one of the critical points where management of crowd has to be of utmost priority.

During 2015 Nashik Kumbh, auspicious dates of holy bathing were 14th July, 29th August, 13th September and 18th September. The expected congregation during these days was maximum and hence a special preparation was carried out for these dates. The process followed for preparing for the event was as follows:

1. Risk analysis through hazard identification and vulnerability analysis of the areas of concern.
2. Identification of capacities in terms of manpower and resources was carried out.
3. Availability of such resources was ensured locally as well as through state government.

There were few challenges which the team had to overcome before the event was to start. The challenges were

- This Kumbh Mela was to be organized during the monsoon season and hence extra preparations were to be thought of. It also gave rise to demand of extra personnel in order to manage city inundation, if there were due to monsoon, and event management.
- The sacred kund where the main bathing was to take place was in the heart of the city, which had narrow lanes and slopes (Gradient 1:10).
- There was limited place for bathing as it was in the heart of the city.
- Special attention was also to be given to the fact that the population which was to be part of the event was heterogenous and diverse with religious sentiments. The number of people was also expected to be more than previous events.
- Due to involvement of multiple agencies, there was expectations of issues pertaining to coordination, command and control, information sharing and synchronization between demand, supply and distribution.
- Due to lack of space for Infrastructural developments, the management was to be done with existing infrastructure.
- Lack of resources to manage such a mega event also creating stress amongst the administration.

With all the above challenges, a detailed risk and vulnerability analysis of both the areas was undertaken, a series of planning meetings, identification of vulnerable points, revisiting of district disaster management plan, were conducted as part of preparations. Incident Response System was also applied for management of this event. NIDM and YASHADA jointly conducted training programmes to sensitize the stakeholders about IRS and how this can be applied for event management. Clear cut roles and responsibilities were identified for concerned stakeholders and mock drills on roles and responsibilities were carried out. Various strategies like pre-positioning of divers, response forces, Fire fighters, watch towers, holding areas, placement of CCTV cameras etc. were planned and executed. Media and Akhadas were also taken into confidence during preparations and execution. Emergency Operations Centre (EOC) and were established at headquarters and on site to monitor the real-time situation and act there and then. With the efforts of district administration, Police, state government, local machinery, other stakeholders and NIDM, this event went of blemish free.

Session X : Legal Provisions

Duration : 75 minutes

Mode of Delivery : Lecture & Discussion

In India there are various legal provisions to regulate and manage crowd that have stood the test of time. The focus on crowd management in places of mass gathering and role of Police and District Magistrate should be understood in background of various legal aspects. It is important to acknowledge a) Right to assemble, and b) The difference between an unlawful assembly and a riot. The article 19 (1) (b) of the constitution of India provides citizens right to assemble peacefully and without arms. This right includes the right to hold the meetings and take out processions. In India, the assembly for religious and social events is very common. However, the individual's right and liberty are preceded by the public order under article 19 (3). The Government has therefore, been empowered to impose reasonable restrictions on the right to take out processions or hold meetings which are likely to lead to a disturbance of public tranquility. It is under this philosophy that public order maintenance is done. The public assembly becomes unlawful (under section 141 of the Indian Penal Code) when it becomes unruly, which can cause damage to life and property. When the members of the unlawful assembly use force or violence, it turns into a riot (under section 146 of the Indian Penal Code).

International Standards

As a responsible member of the international community, India is bound by United Nations standards, which are the basis of many of our laws and regulations. **The UN Basic Principles state that the use of force in dispersing non-violent unlawful assemblies should be avoided and if that is not possible, then minimum force should be used. In the case of violent unlawful assemblies, firearms should only be used if less dangerous means are not available and only to the minimum extent necessary.**

To aid the magistrates and the police in their discharge of crowd management duties, there are various regulatory, preventive provisions, and punitive actions that they can take under various laws. These are briefly mentioned in the following paragraphs.

Disaster Management Act 2005

There are number of provisions in the Disaster Management Act which are applicable for crowd management.

Sections 24 and 34 provide powers to control and restrict vehicular and human traffic to/from vulnerable and affected area.

Section 33 allows district authority to require any officer or any department at district or local level, if necessary, for disaster management tasks.

Section 41 mentions that it is a function of local authority to ensure that all construction projects under its jurisdiction conform to extant standards and specifications.

Sections 51, 52, 53 make obstruction in discharge of duties, false claims for obtaining benefits consequent to the disaster, and false warning on disasters punishable offence.

Section 58 deems company/individual in charge of the conduct of the business at the time of disaster to be guilty of contravention.

Section 65 gives power of requisition of resources, provisions, vehicles etc. for rescue operations.

The Police Act 1861

The crowd management related provisions in this act are as follows:

Section 15 allows quartering of additional police in disturbed or dangerous districts.

Section 17 allows appointment of residents of neighbourhood as special police officer during the period of disturbances.

Section 30, 30A allows the regulation of public assemblies and processions and licensing of the same.

Section 31 makes police duty bound to keep order on public roads.

Madras City Police Act 1888

The crowd management related provisions in this act are as follows:

Section 34 makes places of public resort to be compulsorily licensed.

Section 35 makes eating houses, hotels, wine shops, fencing school, etc. to be compulsorily licensed.

Section 41, 41A gives power to regulate assemblies, meetings and processions in public places, etc.

Section 61 gives police and fire service to remove obstructing persons/structures in case of a fire.

Section 71 has penalty causes for certain offences, like elephant and camel drives/rides, obstructing thoroughfare, organizing assemblies without proper lighting arrangements etc., in public places.

Section 74 prescribes penalty for lighting bonfire, burning straw, discharging fire-arm, etc. in or near any public place.

Section 76, 76A provide powers to cancel or suspend any license for the breach of conditions of license.

Kerala Police Act 2011

The provisions of Kerala Police Act 2011 related to crowd management are:

Section 37 allows entry of police in private places for the purpose of ensuring security or for preventing imminent danger.

Section 45 gives special powers for regulation of vehicular, human traffic; suspend arms and explosive licenses in the disturbed area.

Section 64 recommends deployment of community policing to give general assistance to the police in the discharge of their duties.

Section 67 allows taking over possession of building and premises for preventing riot.

Section 68 gives senior most police officer present at the accident or disaster place powers to order as the circumstances may warrant as to the behaviour of all persons.

Section 69 allows certain actions, like closure of certain streets etc., on occasion of fire, disaster or accident.

Section 76 gives power to temporarily reserve any street or public place by public notice.

Section 79 allows district police chief to permit, control or regulate any public assembly for the maintenance of law and order or preservation of public peace or public safety.

Section 81 allows notification of Special Security Zone on account of high security threats.

UP Melas Act 1938

The crowd management related provisions in this act are as follows:

Section 6 gives district magistrate power to impose toll and fees for any vehicle for animal entering, registration of animals sold within the Mela area.

Section 7 gives district magistrate power to prescribe fees for license to play any professions, trade or calling in the Mela area.

Section 8 gives officer-in-charge authority to allot sites for market places, bathing places, recreation and entertainment places, officials etc. in the Mela area.

Section 9 allows district magistrate to make rules to provide generally against the outbreak or spread of fire.

Section 10 allows officer-in-charge to demolish any structure which in his judgement necessary for preventing the fire from spreading.

Cinematograph Act 1952

The crowd management related provisions in this Central act are as follows:

Section 10 makes cinematograph exhibitions to be licensed compulsorily and section 11 makes district magistrate the licensing authority.

Section 12 states that licensing authority shall not grant license unless adequate precautions have been taken in place for the safety of persons attending exhibitions therein.

Delhi Cinematographs Rules 1953

The rules stipulate number of spectators that can be accommodated in the building. There are mandates and suggestions for seating arrangement, gangways, staircases, exits, parking arrangements, and fire precautions.

Session XI : Exercise on Crowd Management Plan

Duration : 75 minutes

Mode of Delivery : Group Exercise & Discussion

Objective of the Session : At the end of the session, participants will be able to

- Use the knowledge gained for crowd management
- Share their experiences gained during the exercise

The most effective methodology to get a feedback from the participants is to involve them into a scenario based exercise, wherein they would be utilizing their gained knowledge and out-of-the box thinking to get a solution to the given scenario.

Participants would be divided into groups and Facilitator would be providing them with a hypothetical scenario along with activities to be performed by the groups based on the scenario. Participants would be discussing on the possible solutions for the given problem scenario and come out with a consensus solution. At the end of the exercise, participants would be making the presentations on the arrived possible solutions and facilitator would sum-up the exercise with additionalities in solutions and other ways to manage the given scenario.

Session XII : Summing up and Valediction

Duration : 30 minutes

Mode of Delivery : Discussion

Objective of the Session : At the end of the session, participants will be able to

- Explain improvements in the course
- Share their experiences gained during the course

The most effective crowd management clearly delineates areas of responsibility and authority and especially underscores the need for cooperation and communication between public and private parties. When those elements are absent problems can arise at an event.

Some of the Selected Successful Techniques

A. Advance Planning and Training

1. The preparation for an event is based on background information, ticket sales, previous crowd behavior and the experience of other camps and en-route hosting same event.
2. Facility representatives at times travel to other localities to observe crowd responses and crowd handling, along with the production of the show.
3. Special planning is done for difficult events.
4. House rules are publicized and enforced.
5. Training manuals are prepared by management agency and are distributed to all staff.
6. A crowd management plan and an emergency plan are prepared in writing.
7. All decisions are taken by all concerned and event is organized with coordinated efforts along with appropriate safety plans.
8. A formal chain of command for both exterior and interior crowd management personnel is developed and shared with concerned parties.
9. Adequate communication is maintained between interior and exterior security.
10. There are sufficient medical emergency services, personnel and equipment.
11. Crowd management plans and techniques are periodically reviewed for effectiveness.
12. Steps are well lighted or clearly marked.
13. Facility staff members are trained in crowd management.
14. Security is familiar with emergency plans and building layout.
15. The administration keeps the crowd informed about what is occurring inside.
16. The crowd is queued and its entry into the area must be controlled.

17. More than one entrance is used, whenever possible.
18. Local government assumes responsibility for exterior crowd management on public property.
19. Police/ Security are trained in crowd management and are familiar with the area and emergency procedures.
20. The size of a police proposed for managing any event must be proportionate to the anticipated crowd size.
21. The public address system must have adequate volume and clarity for outside and inside use.
22. The exterior security commander, the inside manager, security chief and medical care unit can communicate directly with each other.
23. Crowd waiting outside are provided with the necessary items like drinking water, toilets, waste baskets, musical broadcasts, etc.).
24. Crowd en-route are provided with the necessary items like drinking water, Biscuits, glucose powder, musical broadcasts, etc.
25. Security personnel cooperate with law enforcement officers and accept orders and directives in emergency situations.
26. Security personnel are provided with a training manual which explains and delegates roles of authority and responsibility.
27. Tickets at base camps indicate, at what time and which entrance the crowd is to use.

The session will end with feedback from the participants, closing remark from dignitary and distribution of certificates.

References

1. Working Paper on Management of Crowd and Events of Mass Gathering by NDMA
2. Suggestive Framework for Preparation of Crowd Management Plan for Events/Venues of Mass Gathering by NDMA
3. Presentation on Case study of use of IRS as a Tool for management of Guru-da-Gaddi Celebration at Nanded Maharashtra by Col. V. N. Supanekar (Retd.)
4. Presentation on Case study of adopting IRS Concept for Planned Event Management Kumbh Mela 2015 by Col. V. N. Supanekar (Retd.)

Schedule

DAY 1		
Time	Session Theme	Resource person
10:00 – 10:30	Registration & Welcome	
10:30 - 10:35	About the Programme & Expectations from the course	
10:35 - 10:45	Inaugural Address	
10:45 – 11:00	TEA- BREAK	
11:00 - 12:00	Disaster Management: Institutional Mechanism in the country	
12:00 - 13:00	Crowd and Crowd Characteristics	
13:00 - 14:00	LUNCH –BREAK	
14:00 - 15:30	Crowd Management: Issues & Challenges	
15:30 - 15:45	TEA - BREAK	
15:45 - 17.15	Crowd Management: causes & trigger	
DAY 2		
Time	Session Theme	Resource person
10:00 - 11:30	Planning for Crowd Management	
11:30 - 11:45	TEA- BREAK	
11:45 – 13:15	Planning for Crowd Management ... contd.	
13:15 - 14:15	LUNCH –BREAK	
14:15 - 15:45	Group Exercise on HRV Analysis of the area of event	
15:45 – 16:00	TEA - BREAK	
16:00 – 17:30	Crowd Management: Roles and Responsibilities of stakeholders	
DAY 3		
Time	Session Theme	Resource person
10:00 - 11:30	Health Care for Stampede Victims	
11:30 - 11:45	TEA- BREAK	

Time	Session Theme	Resource person
11:45 – 13:30	Incident Response System & its role and adoption in events of mass gathering	
13:30 - 14:30	LUNCH –BREAK	
14:30 - 15:45	Legal provisions in Crowd Management	
15:00 - 15:15	TEA - BREAK	
15:15 – 16:30	Group Exercise: Scenario based preparation of Plan for Mitigation, Preparedness & Response activities in case of Stampede & Presentation	
16:30 – 17:00	Summing up Participants Feedback Valedictory Address	

About the Author

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About the institute

The National Institute of Disaster Management (NIDM) was constituted under an Act of Parliament with a vision to play the role of a premier institute for capacity development in India and the region. The efforts in this direction that began with the formation of the National Centre for Disaster Management (NCDM) in 1995 gained impetus with its redesignation as the National Institute of Disaster Management (NIDM) for training and capacity development. Under the Disaster Management Act 2005, NIDM has been assigned nodal responsibilities for human resource development, capacity building, training, research, documentation and policy advocacy in the field of disaster management.

NIDM is proud to have a multi-disciplinary core team of professionals working in various aspects of disaster management. In its endeavour to facilitate training and capacity development, the Institute has state-of-the-art facilities like class rooms, seminar hall and video-conferencing facilities etc. The Institute has a well-stocked library exclusively on the theme of disaster management and mitigation. The Institute provides training in face-to-face, on-line and self-learning mode as well as satellite based training. In-house and off-campus face-to-face training to the officials of the state governments is provided free of charge including modest boarding and lodging facilities.

NIDM provides Capacity Building support to various National and State level agencies in the field of Disaster Management & Disaster Risk Reduction. The Institute's vision is to create a Disaster Resilient India by building the capacity at all levels for disaster prevention and preparedness.



Resilient India : Disaster free India

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