MANAGEMENT OF CROWD AT EVENTS/VENUES OF MASS GATHERING

Standard Operating Procedures for Crowd Management

Department of Revenue, Rehabilitation and Disaster Management

Government of Punjab

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Introduction

Crowd management is a crucial aspect of ensuring the safety and security of people attending events and gatherings, especially in a vibrant and densely populated state like Punjab, India. The state is known for its rich cultural heritage and frequently hosts large-scale religious, cultural, and political events that attract massive crowds. Effective crowd management is vital in preventing incidents such as stampedes, accidents, and other emergencies that could lead to injuries or fatalities.

In Punjab, the significance of crowd management is heightened due to the high frequency of mass gatherings at festivals, fairs, and pilgrimages events like Vaisakhi, Hola Mohalla, and Prakash Parv etc. The annual fairs at major gurdwaras draw thousands of participants. The average daily footfall at Golden Temple is one lakh people, the number increasing substantially during festival days. In addition, political and cultural events also attract many people in the state. Proper planning and coordination are essential to managing these events smoothly and safely. Hence effective crowd management strategies help in preventing catastrophic disasters such as stampede.

These guidelines are a step towards promoting effective crowd management strategies in the State of Punjab. The Standard Operating Procedures have been made after referring to the document "Managing Crowd at Events & Venues of Mass Gathering: A Guide for State Government, Local Authorities, Administrators and Organizers", by National Disaster Management Authority (NDMA). This document entails the following:

1. Standard Operating Procedures for crowd management in the State of Punjab.
2. The role to be played by the District Disaster Management Authority.
3. A pre-event, during-event, and post-event checklist.
4. Emergency Support Functions with Respective Departments.
5. The responsibility matrix of the role of Stakeholders.

Objectives:
- To protect the health, safety, and well-being of all attendees by preventing incidents such as stampedes and emergencies.
- To establish clear protocols among stakeholders, including event organizers, local authorities, and emergency services, for cohesive planning and execution.
- To identify and mitigate potential risks with thorough planning and robust emergency response plans, including evacuation procedures and medical support.
- To ensure adherence to relevant laws and regulations, and allocate resources efficiently to support crowd management efforts.

Scope: This SOP applies to all staff, security personnel, and volunteers involved in managing crowds at events and venues of mass gatherings.

Standard Operating Procedure (SOP) for Managing Crowds at Events and Mass Gatherings

These SOPs provide a structured approach for managing crowds at events and venues of mass gatherings. The aim is to ensure the safety and security of all attendees by outlining clear roles, responsibilities, and actions for all stakeholders involved.

Head	Activity
PRE-EVENT PLANNING	
Understanding Visitors and Stakeholders	- Determined by the type of event (religious, youth festival, school/university event, cricket/sports event, music concerts, political gathering) - Determine the season in which it is conducted and the type and location of the venue. - Determine the type of crowd expected (age, gender, region, locals/visitors, people with special needs etc.) and their estimated numbers. - List all stakeholders including event organizers, local authorities, security personnel, medical teams, and volunteers. - Establish a communication protocol among stakeholders to ensure cohesive planning and execution.
Capacity Planning	- Infrastructure development should depend on popularity, periodicity of events, weather, terrain, local population etc. - Staging points should be Planned for physical or virtual locations through which each visitor must pass. - Each staging point should have sufficient facilities for rest, food, water, and 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 gradients". - Calculate the maximum safe capacity of the venue. - Ensure the availability of facilities (toilets, water stations, medical aid, etc.) proportional to the expected crowd size.
Understanding Crowd Behavior	- Assess expected crowd demographics (age, gender, etc.). - Develop crowd control measures based on past event experiences and behaviour studies.

Head	Activity
Crowd Disaster Process	• **FIST**, that is crowd **F**orce, the **I**nformation (false or real) upon which the crowd acts, the physical **S**pace (seating area, chairs, corridors, ramps, doors, lifts etc.) involved, and the **T**ime duration of the incident (rapid ingress/egress) play a very important role resulting in either overcrowding or high desired velocity. • Define and document the phases of potential crowd disasters: initiation, escalation, peak, and de-escalation. • Prepare response strategies for each phase to minimize risks.
Crowd Control	• Understand the demand by referring to the historical numbers, popularity, type of visitors, arrival times, etc) and the supply (capacity of the venue). • Crowd Controlled Staff should be Uniformly dressed (high visibility). • Crowd Control Staff Should be able to communicate with each other and with the crowd. • Make sure that there are ample entrances and exits (including administrative/ emergency routes) at the event, and that they remain unobstructed • Monitor Crowds
RISK ANALYSIS AND PREPAREDNESS	
Identify Threats/Causes	• Conduct a thorough risk assessment to identify potential threats (structural, fire, crowd control issues, etc.). • This process must include ex-officers/administrators, involved in the past events in that area, who can bring a wealth of knowledge about the demography, resources available, limitations, gaps, possible problem areas etc. • Document and prioritize threats based on severity and likelihood.
Risk Assessment and Planning	• Assessing risk should involve understanding the probability of occurrence, its effects and their severity, the time the visitors need to be warned about the threat, and how long the threat may last. • A site assessment may include a review of the site access/exit, structural integrity of buildings, compliance with applicable architectural standards for access and functional needs, and emergency vehicle access.

Head	Activity
	• Develop detailed risk mitigation plans for identified threats. • Conduct drills and simulations to test the effectiveness of these plans. • Identify the safest and most efficient evacuation method for every hazard. • Identify the emergency assembly area. Consider including it in venue maps. • Identify and document roles and responsibilities for hazard type and risk levels. • Establish benchmarks for evacuation time for different hazards and set improvement targets • Use mock drills, audits, exercises etc. to assess emergency preparedness.
Develop Course of Action	• Design clear evacuation routes and procedures. • Establish roles and responsibilities for emergencies, including communication protocols.
INFORMATION MANAGEMENT AND DISSEMINATION	
Information System for Visitors	• Provide clear and accessible information about the event, including schedules, maps, and safety instructions. • Use multiple platforms (websites, social media, on-site signage) for information dissemination.
During the Event	• Continuously update visitors with relevant information (e.g., crowd density, weather changes). • Ensure real-time communication between event organizers and security personnel. • Use of new technology such as drones to monitor crowd movement, rush areas, traffic movement etc. • Network providers can be onboarded for immediate dissemination of warning messages if required.
Information for Stakeholders	Venue/Event Organizers — • Provide detailed operational plans and emergency procedures. Security Personnel — • Mock drills are to be conducted by the authorities before the event.

Head	Activity	
		• Share crowd management strategies and emergency response protocols. • Security persons should have a detailed map showing entry/exit routes, holding areas, location of emergency services etc.

	Local Residents	• Inform about potential disruptions and safety measures in place.
		• They should be informed about the following:
		  ○ Various events, activities and their timings
		  ○ Evacuation and response plans
		  ○ Temporary road closures, parking restrictions etc.

Signage	• Use signage at relevant locations using appropriate language for information dissemination. • **Avoid** putting the information source at or close to the entry/exit point or other bottlenecks to avoid crowding.	
Documentation for Process Orientation	• Maintain detailed records of all plans, protocols, and actions taken for future reference and improvement. • Prepare assessment checklists for fire/electrical safety for buildings/structures, queue control and management procedures. • Document key contacts to be used at the time of emergencies.	
SAFETY AND SECURITY MEASURES		
Generic Safety and Security Guidelines	• Ensure the presence of sufficient security personnel trained in crowd management. • Install barriers and control points to manage crowd flow. • Deploy snake line approach. • Ensure that the areas, where barricades like chains are erected, are kept well-lit and visible to visitors. • Discourage general admission • Ensure emergency exits are not barricaded, blocked or otherwise inaccessible	

Head	Activity
	• Have alternative routes for releasing excessive crowd pressure • The visitors should be encouraged to throw food waste, plastic bottles etc. in clearly identified garbage bins lined up in large numbers across the roads.
Fire and Electrical Safety	• Implement strict protocols for fire prevention and electrical safety. • Enforce fire safety standards • Ensure that the generator, distribution boxes, and circuit breakers are in an isolated place away from the mischievous crowd elements. • There should be safe and clearly labelled storage of fuel (e.g. diesel to be used by generators). • Attempts should be made to minimize tripping hazards (electrical cables, wires) coming in the way of crowd movements and ensure that these are covered. • Ensure that there are enough fire extinguishers, fire hydrants and first aid kits at critical control. • Enough water tanks should be erected. • Ensure that all the structures and electrical wiring/appliances are certified for safety by technically qualified personnel. • Ensure the safe use of aerial transport methods where applicable.
Deployment of Barriers	• Strategically place barriers to control and direct crowd movement, preventing overcrowding in critical areas.
FACILITIES AND EMERGENCY MEDICAL SERVICES	
Medical Services	• Ensure the availability of medical facilities on-site, including first aid stations and ambulances. • Train medical staff to handle crowd-related injuries and emergencies. • Several missing children Booths and first aid posts may be located at various points. • Maps of the venue with key locations, routes, opening hours, and "you are here" signage should be located at various points. • Ensure all facilities are well-lit.

Head	Activity
Improvement Guidelines	• Regularly review and update medical and emergency protocols based on past event experiences and new insights.
TRANSPORTATION AND TRAFFIC MANAGEMENT	
Traffic Management Plan	• Develop a comprehensive plan for managing traffic to and from the event venue. • Coordinate with local traffic authorities to ensure smooth traffic flow.
Emergency Transportation Plan	• Establish clear protocols for emergency transportation, including routes for ambulances and emergency vehicles. • Identify the appropriate locations for standby ambulances. • Clearly define emergency routes from the venue to the hospitals nearby • Involve locals, NGOs, CBOs, PRIs, Ward members etc. to use their local knowledge. • Lay down the procedures for removal of barricades: under what circumstances, who decides that etc.

These SOPs are designed to provide a comprehensive framework for managing crowds at mass gatherings, ensuring the safety and security of all participants. Continuous evaluation and improvement of these procedures are essential to adapt to new challenges and enhance crowd management strategies.

Role of District Disaster Management Authority in Crowd Management

The District Disaster Management Authority (DDMA) plays a crucial role in crowd management, particularly during large gatherings and events. Here are the key responsibilities and roles of the DDMA in crowd management:

HEAD	DESCRIPTION
PLANNING AND COORDINATION	
Risk Assessment	Conducting comprehensive risk assessments to identify potential hazards and vulnerabilities associated with large gatherings.
Event Planning	Collaborating with event organizers, local authorities, and emergency services to develop a detailed crowd management plan.
Stakeholder Coordination	Facilitating coordination among various stakeholders, including law enforcement, medical services, fire departments, and local government agencies.
REGULATION AND COMPLIANCE	
Permitting and Licensing	Ensuring that events comply with local regulations and obtain necessary permits and licenses.
Safety Standards	Enforcing safety standards and guidelines for crowd management, including structural safety, fire safety, and emergency preparedness.
Inspections and Audits	Conducting pre-event inspections and audits to ensure compliance with safety protocols and regulations.
TRAINING AND CAPACITY BUILDING	
Training Programs	Organizing training programs for event staff, volunteers, and security personnel on crowd management and emergency response.
Simulation Drills	Conducting simulation drills and mock exercises to prepare all stakeholders for potential emergency scenarios.
PUBLIC AWARENESS AND COMMUNICATION	
Public Information Campaigns	Running public awareness campaigns to educate attendees on safety measures, evacuation procedures, and emergency contacts.
Communication Plans	Developing and implementing communication plans for real-time information dissemination during events, including the use of public address systems, social media, and mobile alerts.

HEAD	DESCRIPTION
EMERGENCY PREPAREDNESS AND RESPONSE	
Emergency Response Plans	Developing comprehensive emergency response plans for various scenarios, including medical emergencies, fire outbreaks, and security threats.
Resource Mobilization	Ensuring the availability and readiness of emergency resources, such as medical teams, fire-fighting equipment, and security personnel.
Coordination with Emergency Services	Establishing protocols for coordination with local law enforcement, fire department, and medical services for efficient emergency response.
MONITORING AND EVALUATION	
Real-Time Monitoring	Setting up command centres and using technology (e.g., CCTV, drones) to monitor crowd movement and behaviour in real-time.
Incident Reporting	Implementing systems for incident reporting and tracking during events to ensure timely response and resolution.
Post-Event Evaluation	Conducting post-event evaluations to assess the effectiveness of crowd management strategies and identify areas for improvement.
LOGISTICS AND INFRASTRUCTURE	
Infrastructure Planning	Collaborating with event organizers to ensure that infrastructure (e.g., seating, barriers, entry/exit points) supports safe crowd management.
Transportation Management	Coordinating with transportation authorities to manage traffic flow and provide adequate public transportation options for attendees.
RISK MITIGATION AND CONTINGENCY PLANNING	
Risk Mitigation Measures	Implementing risk mitigation measures such as adequate lighting, clear signage, and accessible emergency exits.
Contingency Plans	Developing contingency plans for unforeseen situations, including natural disasters, technical failures, and security incidents.

By fulfilling these roles, the DDMA ensures that crowd management is effective, efficient, and capable of handling emergencies, safeguarding attendees' well-being, and maintaining public order during large gatherings and events

Detailed checklist for managing crowds at events and venues of mass gathering

S.NO.	PRE-EVENT CHECKLIST	Yes ☑/ No ☒
1	Identify potential risks (e.g., overcrowding, emergencies).	☐
2	Develop mitigation strategies	☐
3	Plan entry and exit points	☐
4	Ensure clear signage and crowd flow paths	☐
5	Plan for accessibility and emergency access	☐
6	Determine maximum venue capacity	☐
7	Implement measures to control and monitor crowd size	☐
8	Obtain necessary permits and licenses	☐
9	Ensure compliance with local regulations	☐
10	Recruit and assign roles for event management, crowd control, and security	☐
11	Train staff on crowd management techniques and emergency procedures	☐
12	Provide briefings on roles and responsibilities	☐
13	Design and place clear, visible signs for directions, exits, and information	☐
14	Install barriers to manage crowd flow and prevent surges	☐
15	Set up systems for managing queues and minimizing wait times	☐
16	Implement ticketing and credentialing systems	☐
17	Set up communication channels (e.g., radios, phones) for staff and security.	☐
18	Prepare and distribute information about event procedures and safety	☐
19	Develop and document emergency response and evacuation procedures	☐
20	Set up on-site medical stations with trained personnel and supplies	☐
21	Implement a system for reporting and documenting incidents	☐

S.NO.	DURING EVENT CHECKLIST	Yes ☑/ No ☒
1	Use surveillance and staff observations to monitor crowd density and behaviour	☐
2	Adjust barriers, signage, and access points as needed	☐
3	Ensure smooth flow and address any bottlenecks	☐
4	Maintain communication with local authorities and emergency services	☐
5	Ensure continuous communication among staff and security	☐
6	Provide real-time updates and information to attendees as needed	☐
7	Follow emergency procedures and manage incidents promptly	☐
8	Record details of any incidents and actions taken	☐

S.NO.	POST-EVENT CHECKLIST	Yes ☑/ No ☒
1	Hold a debriefing session with staff and stakeholders	☐
2	Review event performance and identify areas for improvement	☐
3	Collect feedback from attendees and staff about the event	☐
4	Record insights, recommendations, and any changes for future events	☐
5	Update the SOP based on feedback and lessons learned	☐

Emergency Support Functions with Respective Departments

Emergency Support Functions (ESFs) are critical components of emergency management and response frameworks, organizing resources and coordinating activities to address specific needs during incidents. For crowd management, ESFs typically include a variety of functions, including:

Emergency Support Function	PURPOSE	ACTIVITY	CONCERNED DEPARTMENT
Transportation	Facilitate the evacuation, movement, and transportation of people	• Coordinate with public and private transportation providers to ensure the safe and efficient movement of large crowds. • Arrange transportation for individuals with access and functional needs.	Transport, District Administration
Communications	Provide and coordinate effective communications for emergency response	Set up communication channels to disseminate information to the public and responders, including public address systems, social media updates, and emergency alerts	Department of Information and Public Relations
Firefighting	Detect and suppress fires to protect lives and property	Deploy fire personnel to areas with large crowds to manage fire risks and provide immediate response if needed	Fire Services
Emergency Management	Support the overall coordination of incident management	Develop and implement crowd management plans, coordinate between different ESFs, and oversee resource allocation	District Administration (Not below the rank of SDM)
Mass Care, Emergency Assistance, Housing, and Human Services	Provide shelter, feeding, and other essential services to individuals affected by emergencies	Set up temporary shelters and provide basic needs like food and water for large crowds. Manage reunification of families and care for individuals with special needs.	Health, District Administration

Logistics Management and Resource Support	Provide logistical and resource support to emergency responders.	Ensure the availability of necessary resources such as medical supplies, food, water, and shelter equipment. Coordinate with suppliers and manage the distribution of these resources	Nodal Officer in Incident Response Team, District Revenue Office
Public Health and Medical Services	Provide public health and medical services	Deploy medical personnel to provide first aid and medical care, manage mass casualty incidents, and coordinate with hospitals and emergency medical services	Health & Family Welfare
Public Safety and Security	Maintain public order and safety	Deploy law enforcement personnel to manage crowd control, ensure public safety, and respond to incidents of violence or disorder. Implement crowd management techniques and coordinate with other agencies for security support	Police, Home Guards & Civil Defence
External Affairs	Provide accurate and timely information to the public	Manage public information efforts, coordinate with media outlets, and use social media and other platforms to keep the public informed about the situation and safety measures.	Department of Information and Public Relations

Additional Considerations:

- **Planning:** Develop comprehensive crowd management plans that include risk assessments, emergency evacuation routes, and clear communication strategies.
- **Training:** Ensure that all personnel involved in crowd management are properly trained in emergency procedures, communication protocols, and crowd control techniques.
- **Coordination:** Establish a unified command structure to ensure coordination among various agencies and organizations involved in the response.

By integrating these ESFs into a coordinated plan, emergency responders can effectively manage large crowds during emergencies, ensuring the safety and well-being of all individuals involved.

Crowd Management Responsibility Matrix for Stakeholders

Role/Stakeholder	Responsibilities
Event Organizer	Overall planning and execution of the event.
	Coordination with all stakeholders.
	Ensuring safety and security measures are in place.
	Compliance with legal and regulatory requirements.
Security Personnel	Maintaining order and safety within the event area.
	Crowd control at entry and exit points.
	Monitoring for suspicious activities.
	Emergency response coordination.
Local Law Enforcement	Law enforcement and public safety outside the event area.
	Traffic control and management.
	Coordination with event security for crowd control.
Medical Services	Providing on-site medical care and emergency response.
	Setting up first aid stations.
	Coordinating with local hospitals for emergencies.
Fire Department	Fire safety and emergency response.
	Ensuring compliance with fire safety regulations.
	Providing firefighting equipment and personnel on-site.
	Assisting with crowd management and information dissemination.

Event Staff/Volunteers	Helping with the organization of entry, exit, and movement within the event area.
	Reporting any issues or concerns to security personnel.
Communication Team	Providing timely information to attendees through announcements and signage.
	Managing communication channels for coordination among stakeholders.
Emergency Services	Coordinating response to emergencies and incidents.
	Ensuring readiness and availability of emergency resources.
Transportation Services	Managing public and private transportation for event attendees.
	Coordinating with local authorities for traffic management.
Facilities Management	Ensuring the infrastructure is safe and secure.
	Providing amenities like restrooms, seating, and shelter.
	Managing waste disposal and cleanliness of the event area.

Key Steps for Implementation

1. **Planning and Coordination Meetings**: Regular meetings with all stakeholders to plan and coordinate efforts.
2. **Training and Drills**: Conducting training sessions and drills for all personnel involved in crowd management.
3. **Communication Plan**: Establishing a clear communication plan, including signage, announcements, and emergency communication protocols.
4. **Emergency Preparedness**: Developing and rehearsing emergency response plans for different scenarios.
5. **Monitoring and Evaluation**: Continuously monitoring the crowd and evaluating the effectiveness of the management strategies during the event.