“Crowd Management: Issues and Challenges”

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ABSTRACT
Crowd Disasters are reoccurring phenomenon in India. Such incidents highlight the need for effective crowd management in the country. It is necessary to build a systematic approach to find the gap and improve the crowd management capacity. The paper include a detailed institutional structure needs to establish including anticipating contingencies, effective monitoring and preventive measures.

Keywords: Crowd Management, Crowd Management Plan, Disaster Management, Crowd

1. Introduction
India is very familiar to large gatherings or crowded places. Many festivals and occasions like Durga Pooja, Chath Pooja, Kumbh Mela, Ramjan, Rath Yatra and Hats and rallies attract many people and devotees. Such events several times attracts huge crowd which creates chaos and leads to a mishap. As per national Crime Record Bureau a total no. of 3216 in incidents of stampede have taken place in India between 2001 and 2014.

2. Need of Crowd Management:
More of the crowd related disasters are related to religious festivals. Such incidence usually occur in common events like musical concerts, exhibitions, firework display, sporting events and places like malls, cinema theatres, market places, etc. So it becomes necessary to set up procedure to manage the crowd considering the safety and security of lives, property and rights of all people and to maintain the law.

3. Planning and Preparedness for Crowd Management
Most of the crowd disasters are manmade and can be prevented and control by adequate planning and preparedness. The main cause for crowd disasters during mass gathering events in India has been identified as "lack of Planning and preparedness". The planning process should include understanding the visitors, stakeholders, risk analysis, safety and security measures, facilities and emergency planning, transport and traffic management.

4. Crowd management in Haryana
In last few years Haryana has faced natural and man-made disasters. In 1995 on December 23 Haryana has also faced crowd disaster named “Dabwali Fire Tragedy”. DAV Public School Dabwali was holding the Annual Prize Distribution function. In the event, around 1500 persons including men, women and children were present. The sitting arrangement was made in the pandal comprises steel super structure of GI sheet on the top and partially covered on the three sides by curtains with a false ceiling supported with bamboo sticks. The pandal caught fire due to a short circuit in an electric generator which caused blockage in main entrance gate and stamped happened. Total 446 persons, mostly children and women, died and more than nearly 200 persons suffered burn injuries.

Since last many years government of Haryana has initiated many initiated related to disaster management. To prevent such accidents of Haryana has prepared list of mass gathering events and places which are as under:

Table 4.1. Name of festivals/functions in the district where mass gathering and crowd disaster can occur

<table>
<thead>
<tr>
<th>Month</th>
<th>District Name</th>
<th>Events indicating name of festivals/functions in the district where mass public gathering or Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>All districts</td>
<td>Republic day Celebrations</td>
</tr>
<tr>
<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
</tr>
<tr>
<td></td>
<td>Yamunanagar</td>
<td>Rooja Peer Mela at Sadhaura</td>
</tr>
<tr>
<td></td>
<td>Sirsa</td>
<td>Makar Sakranti at Gurudawara Sahib at Village</td>
</tr>
</tbody>
</table>


Chormar and Tilokewala, Mela at Dera Baba Bhumanshah at Village Zhordnali

Palwal
Satti Mela, Hodal City

Bhiwani
Mela in the memory of Baba kamal Giri Ji, Village Bawani Khera

Rohtak
Guru Gobind Singh Jayanti, Gurudwara Bangla Sahib

Jhajjar
Cattle Fair at Dujana, Jahajgarh and Balour Road, Bahadurgarh

Mahendergarh
Jairamdas ka Mela at Village Pali, Teshil Mahendergarh Hanuman Ji ka Mela at Village Bihali Teshil Ateli

February

Jind
Mela in Pindara, Hatti and Ramrai Villages, Religious Festival

Sirsa
Melat in villages Kagdana, Ding, Ali Muhamad, Narayankhera, Ludesar, Kumahariya

Palwal
Udas Nath Mela, Village Alawalpu.

Rohtak
Mahashivratri, Madak Dham Kilo & Vaish College Ground, Rohtak

Faridabad
Khadi Gram Udyog Mela at HUDA Ground, Sector 16 Faridabad and Surajkund Craft Mela at Surajkund,

Jhajjar
Baba Parshadgiri Mela and Baba Gosai Mela at Gavalson

March

Hisar
Kisan Mela at CCS HAU, Hisar

Gurugram
Chaitra Mela at Sheetla Mata Mandir, Gurugram

Jind
Mela in Pindara, Hatti and Ramrai Villages

Fatehabad
Mela at Dhingsra

Palwal
Horanga (Rangeeli Holi), Village Banchari.

Rohtak
Holla Mohalla, Gurudwara Village Lakhan Majra

Jhajjar
Baba Garibdas Mela at Chudani

Kurukshetra
Chaitra Chaudas Mela at Pehowa,

Bhiwani
Mela in the memory of baba Jagannath Ji, Village Jattu Luhari

April

Hisar
Mela at Village Bhanbhori, Tehsil Barwala, District Hisar

Hisar
Kajla Dham at Village Kajla District Hisar.

Jind
Mela in Pindara, Hatti and Ramrai Villages, Religious Festival

Panchkula
Navratara Celebration in Kalka Devi Mandir, kalka and Mansa Devi Mandir Panchkula

Panipat
Chaitra Navratra Fair Devi Mandir

Ambala
Baishakhi Mela, Panjholkhara Sahib, Manji Sahib

Bhiwani
Mela at Bhoja Wali Devi Mandir, Naya Bazar, Devsar wali Mata, Village Devsar, Pahri Mata Mandir, Village Pahri (Loharu), Mela in the memory of Baba Mungipa Ji, Village Tosham,

Mahendergarh
Shitla Mata Mela at Village Nuni Shekhupura,

Sonipat
Dev Mela during Navratra at Village Chittana

May

Jind
Mela in Pindara, Hatti and Ramrai Villages, Religious Festival

Panipat
Mushairaa, Kalender chowk

Mahendergarh
Baba Satinath ka Mela, Village Chindaliya, Tehsil Narnaul

June

Jind
Mela in Pindara, Hatti and Ramrai Villages,

Panipat
Circus Fair, 25 Sector HUDA, Panipat

Sonipat
Eid-Milan at Eid-Gah, Sonipat
<table>
<thead>
<tr>
<th>Month</th>
<th>Area</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>Gurugram</td>
<td>Kawar Movement at NH-8</td>
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<tr>
<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>Mela in the memory of Baba Param hans Ji, Village Tingrana,</td>
</tr>
<tr>
<td>August</td>
<td>All districts</td>
<td>Celebration of Independence day</td>
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<tr>
<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
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<tr>
<td></td>
<td>Palwal</td>
<td>Teej (Wrestling Mela) and Janamashtmi Mela,</td>
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<tr>
<td></td>
<td>Kurukshetra</td>
<td>Somavati Amavasya at Sannihit sarovar and Brahmapuri Sarovar</td>
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<td></td>
<td>Mahendergarh (Narnaul)</td>
<td>Raksha Bandhan Mela at Modawala Mandir; Jhethu Baba ka Mela at Village Nasibpur</td>
</tr>
<tr>
<td>September</td>
<td>Hisar</td>
<td>Agroha Dham District Hisar</td>
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<tr>
<td></td>
<td>Hisar</td>
<td>Kisan Mela at CCS HAU, Hisar</td>
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<td></td>
<td>Mewat</td>
<td>Haryana Veer avm Shaheed Divesh</td>
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<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
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<tr>
<td></td>
<td>Panipat</td>
<td>Navratra, Devi Mandir</td>
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<td></td>
<td>Ambala</td>
<td>Bavan Dwasi Mela, Norang Ray,</td>
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<td></td>
<td>Mahendergarh</td>
<td>Baba Keshariya Mela, Village Mandola (Jerpur)</td>
</tr>
<tr>
<td>October</td>
<td>Hisar</td>
<td>Mela at Village Bhanbhori, Tehsil Barwala, Kajla Dham at Village Kajla, Kirsh Darshan Export at Tractor Training Centre, Hisar</td>
</tr>
<tr>
<td></td>
<td>All districts</td>
<td>Dusshera mela</td>
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<tr>
<td></td>
<td>Gurugram</td>
<td>National Day Celebration Function at Tau Devi Lal Stadium</td>
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<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
</tr>
<tr>
<td></td>
<td>Panchkula</td>
<td>Navratara Celebration in Kalka Devi Mandir, Kalka and Mansa Devi Mandir Panchkula</td>
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<tr>
<td></td>
<td>Ambala</td>
<td>Bavan Dwasi Mela, Naraingarh</td>
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<tr>
<td></td>
<td>Bhiwani</td>
<td>Navratra Pooja at Bhoja Wali Devi Mandir, Naya Bazar,</td>
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<tr>
<td></td>
<td>Sonipat</td>
<td>Devi Mela during Navratra at Village Chittana</td>
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<tr>
<td>November</td>
<td>Gurugram</td>
<td>Chatt Pooja</td>
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<tr>
<td></td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages, Religious Festival</td>
</tr>
<tr>
<td></td>
<td>Yamunanagar</td>
<td>Chath Puja at Badi majri Ghat, Yamunanagar, Kapalmohan Mela at Bilaspur, Babalada fair at village babaladana</td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>Mela at Dhingsra</td>
</tr>
<tr>
<td></td>
<td>Palwal</td>
<td>Gudri ka Mela, Hathin and Swami Ka mela,</td>
</tr>
<tr>
<td></td>
<td>Ambala</td>
<td>Guru Nanak Dev Jayanti Panjokhara Sahib, manji Sahib Gurudawara, Baadhai Baag</td>
</tr>
<tr>
<td></td>
<td>Faridabad</td>
<td>Baldev Chhath Mela at Dussehra Ground, Ballabgarh, Faridabad and upon the request reques of concerned participant</td>
</tr>
<tr>
<td></td>
<td>Sonipat</td>
<td>Baba Jinda at Village Moi Majri, and Satkhumba Teerth at Village kheri Giljar Ganaur</td>
</tr>
<tr>
<td>December</td>
<td>Jind</td>
<td>Mela in Pindara, Hatti and Ramrai Villages,</td>
</tr>
<tr>
<td></td>
<td>All districts</td>
<td>Celebration of Geeta Jayanti</td>
</tr>
</tbody>
</table>
5. Crowd Management Plan
It always proves that "Precaution is always better then cure". Therefore to make the people aware about crowd management the National Disaster Management has issued a guideline on “Managing Crowd at Events and Venues of Mass Gathering” in 2014 which provides adequate information regarding crowd management. Roles and responsibilities of all the stakeholders have also been defined in the guideline. So considering the risk of safety and security of the people a crowd management plan can be prepared including the following aspects:

5.1. License/Registration/Approval and permission:
The event should be organized as per the local by laws. Approval from License/statutory agency should be mandatory for stage organizers/venue owner/ suppliers to organize the event. The approving authority/organization may cross check the information provided by the organizer.

5.2. Hazard and Risk and Vulnerability Assessment (HRVA)
Hazard risk and vulnerability analysis at the event/venue provide a base for preparing for all the phases of disaster management. Following points can be included in the HRVA.

5.2.1. Location/Place of the event
5.2.2. History of the event/venue
5.2.3. Duration of the event
5.2.4. Expected visitors
5.2.5. Contact details of event organizer/planner/owner of venue
5.2.6. Entry and exit points of the event/venue, emergency exit points
5.2.7. Holding areas, evacuation rout
5.2.8. Parking lots
5.2.9. Shopping areas

5.3. Safety and security :
As per the HRVA the safety/security of the event/venue may be evaluated including following points:

5.3.1. Signages (information service provided)
5.3.2. Availability of public addressing system
5.3.3. Entry and exit arrangements
5.3.4. Fire precaution
5.3.5. Electrical installation
5.3.6. Traffic control
5.3.7. Emergency power arrangement
5.3.8. Location of food vendors using gas cylinders
5.3.9. Screening and credential checks for suspicious persons
5.3.10. Unattended packages

5.4. Preparedness & Capacity Building:
Local authority should conduct a preparedness meeting including all the stakeholders like police, health, fire home guard, transport and food and supplies to discuss all the arrangements and to describe roles and responsibility of each stakeholder. Following may be included in the capacity building activities:

5.4.1. Access points,
5.4.2. Accessibility of staff, volunteers, police, helpline
5.4.3. Safety and security amongst visitors
5.4.4. Special arrangement for children, ladies and people with special needs
5.4.5. Arrangement for Lost and found
5.4.6. Parking areas
5.4.7. Arrangements for health and hygiene at the event/venue.
5.4.8. A checklist of food venders, location of drinking water facilities, toilets (location, numbers for male female, cleaning schedule), can be prepared.

5.5. Response Plan
Response plan should follow a step wise process for its development Following are the major component of the response plan:

5.5.1. Incident Response Plan
The concept of "Incident Response System" in overall management of event has been found to be an effective & efficient management System. all the stakeholders should perform their role and responsibility as per the response plan.
5.5.2. **Roles and Responsibilities of the Stakeholders:** Roles and responsibilities of all the stakeholders like Police, Health, PWD, Forest, Fire Services, Home Guard and Civil Defense, Red Cross, Public Health and Engineering may be defined clearly.

5.5.3. **Procedure for the Activation of Plans: Incident Response** as and when required the Incident Response Plan may be activated to manage the incidence. The incident will state the urgency and requirement of the plan.

5.5.4. **Emergency Operation Centers:** Emergency operation centre may be established at a central location so that immediate action can be performed. It should be established under the local administration with representatives from the line departments.

5.5.5. **Media Management:** Media should act responsibly at the place of mass gathering. Media should spread the information of Do's and Don’ts. During the event it is necessary to have cooperation the media and the governmental and non-governmental agencies.

6. **Conclusion:**
Crowd management is important to build a participatory approach with the active involvement of various stakeholders, local representatives, and the community to ensure smooth conduct of events of mass gathering. Crowd management can vary as per the location, type, and situation. Preparing crowd management plan should be an exercise which includes the issues, challenges, venues and event of mass gathering. The plan should focus on religious place with the help of the local authorities and stakeholders.

**References:**
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