

The Godavari Maha Pushkaram 2015 in Andhra Pradesh State - A study on good practices and gap analysis of a mass gathering event

Prabhakar Akurathi¹, N. Samson Sanjeeva Rao^{2,*}, TSR Sai³

¹PG Student, ²Professor, ³Professor & HOD, NRI Medical College, Chinakakani, Andhra Pradesh

***Corresponding Author:**

Email: samson.nallapu@yahoo.com

Abstract

Introduction: The Godavari River's Mahapushkaram observed from 14th to 25th July, 2015 drew upto 10 lakh people to Rajahmundry city and neighboring towns. Due to the flocking of such masses, many problems were anticipated; traffic congestion, poor sanitation, air pollution due to vehicles, water pollution etc. There was also an increased need for proper food, milk and water. An effective mass management plan requires an assessment of the current system's capacity and understanding of hazards and risks. A review of such events can enlighten us with good practices and identify gaps which can be addressed in future such events.

Materials and Method: This qualitative study involved PRA techniques like transect walk on all the days and interaction with key informants and in depth interviews with officials, workers and pilgrims. Preparations made for the Pushkaram, good practices and gaps in the arrangements were observed and noted. The information was transcribed in MS word and identified themes are presented.

Results and Discussion: Observations regarding planning, facilities, food and water, sanitation, communication, transport, crowd flow, security and safety revealed many good practices. However many gaps were also identified. On the first day a stampede took place at pushkar ghat with 29 people losing their lives. The stampede that took place revealed several lacunae in preparedness for mass casualty incidents.

Conclusion: The state has a responsibility to make sure that adequate arrangements are made to meet the large inflow of pilgrims. Accommodation, food, water and sanitation needs were adequately met with good public private coordination. Lacunae were; need for better traffic regulations and diversions, addressing basic needs of people stuck in traffic for long hours and an emergency evacuation system in case of untoward incidents. On site health outposts must be of a reasonably higher level to manage casualties.

Keywords: Mass gathering event, Pushkaram, Good practices, Stampede

Introduction

The Godavari River's Mahapushkaram (once in every 144 years i.e. 12 x 12 years) was observed from 14th to 25th July, 2015. People came from all parts of the country to take a holy dip in the river during this celebration. This led to gathering of several people at the river banks.

Two major mass gathering events undertaken on a regular basis are the Kumbh Mela in India and the Hajj in Saudi Arabia. A review of such events can enlighten us with good practices and identify gaps which can be addressed in future such events and contexts related to disaster management. A mass gathering often brings together organization that has never worked together. It is very essential to establish excellent coordination and communication system between different organizing groups. A proper understanding, planning, timely risk assessment and proper resource utilization can make any event a successful one.⁽¹⁾

Preparedness planning increasingly emphasizes building capacity (human, organizational and infrastructural) at the community level. Empowering communities to develop emergency management plans for mass casualty incidents requires strong involvement by health authorities at all levels, especially the national level, as well as support from other sectors.⁽²⁾ An

effective mass management plan requires an assessment of the current system's capacity, understanding of hazards and risks and to establish excellent coordination and communication systems between different organizing groups. Problems anticipated were traffic congestion, poor sanitation, air pollution due to vehicles, water pollution etc. There was also an increased need for proper food, milk and water. Untoward incidents like fire accidents, stampedes, disease outbreaks etc. are to be anticipated.

A Transect walk is a structured walk through the locality, during which the researcher is directly exposed to the physical and topographical features. This will open up discussion on various subjects for development. Interaction with participants will help identify their special problems needing attention.

Aim

To identify the good practices adopted and to recognize the gaps in planning and execution of the event 'The Godavari Maha Pushkaram 2015' in the state of Andhra Pradesh.

Objectives

- To study the resources and facilities made available like drinking water, sanitation, food availability etc.
- To find out the good practices, gaps and future needs.

Materials and Method

This study was done in the vicinity of the arrangements made for the Godavari Maha Pushkaram at Rajahmundry city of Andhra Pradesh and neighboring towns from 14th to 25th July, 2015. Permission for conducting this study was obtained beforehand from all the concerned authorities and government officials who were involved in the Mela organization and management. Qualitative study methods like Transect walk, Key informant interviews and In-depth interviews were used. On all the days of the event, transect walks were undertaken at different cities and towns like Rajahmundry, Kovvuru, Narasapur, Dhindi and Laxmiswaram situated on the banks of Godavari River, their bathing ghats and approach roads. Arrangements made by local authorities were observed. In depth interviews and key informant interviews were conducted with selected officials, workers and pilgrims. The textual information was transcribed in MS word documents and recurring themes were identified. Themes which emerged were; Shelter and accommodation, Safe food and water supplies, Vehicular traffic and road congestion, Sanitation, Crowd control and Disaster preparedness: Health care arrangements, Safety and security and Communications.

Observations and Discussion

Planning: The planning of an event where the actual number of participants cannot be properly predicted can be very difficult. Prior estimation of actual requirements, traffic etc. is often in vain. The Govt. itself had subjected intense propaganda of the event to attract many devotees which opened debate / criticism. It was also widely publicized that the first day of the Pushkaram especially in the morning hours was more auspicious. In spite of all the challenges, adequate planning was done to meet the requirements in most areas like water supply, sanitation, etc. But on the first day of the event, in the initial hours itself a stampede took place which revealed several lacunae in execution, preparedness for mass casualty incidents and political pressure.

Management needs identified were; travel arrangements and vehicle management both public and private, traffic control, accommodation / temporary shelters, water and food supply, sanitation, crowd control at the ghats, preparedness for facing untoward incidents like fire accidents, stampedes, drowning etc.

Studies from the Kumbh Mela 2013 show evidence of high quality planning and administration. The Mela

committee and all other agencies involved successfully made the event convenient, efficient and safe. There were adequate to satisfactory water sanitation, hygiene conditions and health care services.^(3,4,5)

Amenities: For accommodation of people, all the available spaces including schools, colleges, universities, hotels, resorts etc., were booked. BSNL set up free Wi-Fi hotspots with super fast connectivity at various locations including bus stops. Tents and temporary changing rooms were erected for pilgrims

Food and Water: Our organisation is providing food for the pilgrims. The authorities have ensured availability of vegetables, milk and dairy products at subsidized rates.”

Manager of local NGO

Water, food packets were supplied everywhere by voluntary organizations and people stood in disciplined queues. Water was also made available in large Sintex tanks in all the tents. Water packets and food packets were supplied all through the towns by several voluntary organizations very extensively in an organised manner. This was a highlight in the entire arrangements.



Fig. 1: Pushkar Ghat – East part where stampede took place



Fig. 2: Tents for pilgrims

Crowd Flow / Traffic /Security: “We have planned for synchronizing our local transport vehicles to meet every train coming in. No passenger will be stranded at the station.”

Officer at transport desk

“No train is in time, no one is in a position to predict the arrival of any train. One train was even halted on the bridge for few hours. It resulted in heavy congestion in the station.”

Railway official

All trains arriving at Rajahmundry were over loaded with people and had to move slowly. Trains were over loaded with people to the extent that one cannot move even to the toilet. No train was in time and it was impossible to tell the expected arrival of any train. One train was even halted on the Godavari Bridge for a few hours. It resulted in a heavy congestion in the railway station. Transport up to the Ghats was provided by small jeeps / auto rickshaws for senior citizens, physically disabled and children.

“So many vehicles were there. The traffic jam extended almost 30 km from Rajahmundry in all the routes. It took us 5 to 6 hours to enter the city.”

A pilgrim from Visakhapatnam

“We are strictly not going to allow any private vehicle into the city. Parking has been arranged in the outskirts. Free public bus transport is provided within the cities – at Rajahmundry and Narasapur.”

Police inspector on duty, Control room, Rajahmundry

The large number of private vehicles making their way to riverside cities and towns resulted in total congestion of all arterial routes. Out of the 12 days more than half were worst affected. Traffic congestion and jams could not be prevented by the administrators. Private vehicles like cars and buses were very high in numbers which resulted in total congestion of traffic in all routes to Rajahmundry. Traffic jam was nearly 30 km from the city in all routes which took 5 to 6 hours to traverse.

“These VIPs vehicles! They are making more problems for the traffic. It is very difficult to manage!”

Traffic policeman, Rajahmundry



Fig. 3: Zero discharge toilets. However the custom of washing feet after toilet use led to stagnation and mire



Fig. 4: Planned passage for pilgrims and functionaries / vehicles at various Ghats. These proved to be woefully inadequate

VIPs vehicles were a constant source of concern for the traffic police. Food and water facilities for people stuck in traffic jams were not at all addressed, neither predicted nor planned.

Safety: “We have deputed 18,000 police personnel. 58 CCTV cameras have been arranged for constant surveillance of crowd and traffic.”

Police Official, West Godavari Dt.

“We have been told that 3,500 swimmers and 870 boats have been arranged to prevent any accident”.

Local boatman

Communication: “We have set up free Wi-Fi hotspots with super fast connectivity at various locations including bus stops.”

BSNL worker, Rajahmundry

Sanitation: “Constant monitoring and cleaning activities will be taken up. 15,000 trash cans in red and blue colors have been placed to separate dry and wet waste. Daily cleaning of drains, collection and disposal of solid waste before, during and after the event has been planned.”

Sanitary Inspector, Rajahmundry

“Hourly updates from sanitation workers and supervisors will make it to the database of the central control room.”

“Zero discharge toilets have been placed at different points. They are very environmental friendly. But what to do? People have a habit of washing their feet after use of toilet. This has resulted in water stagnation.

Sanitary Inspector, Rajahmundry

Environmental friendly zero discharge toilets are placed at different places. However the cultural habit of washing feet after use of toilet resulted in stagnation of water and mire around the toilets. Continuous cleaning of drains, collection and disposal of solid waste was underway.

“We are not allowed to sleep properly! We are being allocated two or even three shifts in a day.”

Sanitary worker, Kotilingalarevu, Rajahmundry

Health Care: The Director of Health and Family Welfare was personally monitoring all the arrangements on site. A total of 1694 health personnel were deployed

at Ghats. Another 320 staff are deployed at sites other than Ghats. It includes 48 specialist doctors. 225 medical officers and other Para medical staff were mobilised from health centers neighboring. Ambulances are kept ready adequately. Boat ambulance facility is provided round the clock.

“What is the point of all these arrangements? When one untoward incident happens we all get a bad name.”

Staff Nurse, Health camp, Kovvur

Disease burdens during mass gathering events are particularly difficult to measure due to differences in healthcare seeking attitudes, religious beliefs and high crowd mobility. Emphasis should rather be on the identification and reduction of the potential risk factors. Disease prevention, diagnosis and treatment will become enhanced when health care personnel and public health authorities are well versed with the health risks involved.⁽⁴⁾

Conclusion

Good Practices: As the govt. stopped all vehicles at outskirts of the city and arranged free public bus transport, it relieved traffic within the city to a great extent. Bypassing queues, transport up to the ghats was provided for senior citizens, physically disabled people and children by small jeeps and auto rickshaws. Water and food packets were supplied extensively throughout the city in an organised manner by several voluntary organizations.

Best practices identified:

- Sanitation: Continuous cleaning and garbage collection.
- Food and water supply within the city especially by NGO and local people involvement.
- Free transport within the city.
- Stopping all vehicles in the outskirts.
- Involvement of medical colleges in providing health care

Gaps Identified: Traffic congestion / jam could not be prevented by administrators. Food and water facilities in people stuck in traffic jam were not yet all met, not even predicted, planned or addressed. Roads reaching to Rajahmundry would have been expanded and better traffic regulation and diversions would have been done. VIPs vehicles are making more problems for the traffic

Though separate passage for security vehicles or ambulances or sanitary vehicle is arranged, on the time of real need of evacuation of the stampede victims, police could not prevent those passages being crowded by people. In fact for pushkar ghat, middle part is the main entrance, road at east part where people were made to wait in queues is not so wide.

Issues:

- Excessive publicity and some misinformation about the event

- Poor traffic management. Food and water and sanitation needs of people stuck in traffic
- Poor crowd management
- Poor disaster preparedness
- Arrangements to be according to the peoples culture

An Untoward Incident: In a mass casualty incident, use of emergency procedures, such as triage, reduced provider to patient ratios, and loading of multiple patients in ambulances are necessary. To be successful mass casualty incidents must address all of the stages like preparedness, response, patient clearance, transport to definitive care etc. This may include utilization of existing resources and capabilities effectively or establishing new programmes to improve performance.⁽⁶⁾

On ‘Day one’ of the event a stampede took place. 29 people lost their life. It revealed several lacunae in execution and preparedness for mass casualty incidents. Ambulances carrying victims were stuck in the heavy crowds. This incident was criticized by media questioning the preparedness for dealing with accidents and also the reasons leading to such stampede. The idea that it was auspicious to take a dip in the very beginning of the holy period was propagated prompting many to come very early in the morning to the Ghats. However all the gates were closed making large crowds of people wait with rising impatience. Later just one of the gates was opened, allowing the huge crowd waiting outside to enter into the Ghat. It led to a stampede and loss of life. Though separate passages for security vehicles / ambulances / sanitary vehicles were arranged, at the time of real need, police could not prevent those passages from being crowded by people and evacuation of the victims became very difficult.

A similar stampede occurred at the Kumbh Mela in 2013 when lakhs of devotees caused a melee when the railway authority announced a last minute change of platform for running the two mela special trains. A total of 36 lost their life in the stampede triggered by the collapse of a railing of the over bridge.

Lessons for the Future

The state Government had a responsibility to make sure that adequate arrangements are made to meet the large inflow of pilgrims. Roads reaching Rajahmundry should have been expanded and better traffic regulation and diversions should have been put in place. Better synchronization of train timings with local transport was needed. An emergency evacuation system in case of untoward incidents is necessary. Health facilities at the spot must be of a reasonably higher level to manage casualties. Food, water and sanitation needs of people stuck in traffic should be addressed. Organised worldwide events like the Hajj are systematically incorporating technology in improving the efficiency of human resources and infrastructure to ensure freedom from disasters.⁽⁷⁾

Acknowledgements

The authors wish to gratefully acknowledge all the officials and workers who cooperated by giving their views. We also wish to thank the NRI Medical College management for the necessary resources to take up this study.

References

1. Singh S.K, Bhisht A, Environmental Management in Mass Gatherings: A Case Study of Maha Kumbh Mela 2013 at Prayag, India. IJRST, 2014; 1 (7): 112 <http://www.ijrst.org/articles/IJRSTV1I7017.pdf>.
2. WHO, Mass Casualty Management systems, Strategies and guidelines for building health sector capacity, Health Action in Crises, Injury and Violence Prevention, April 2007, World Health Organization, 20 Avenue Appia, CH - 1211 Geneva 27, Switzerland - Available at http://www.who.int/hac/techguidance/tools/mcm_guidelines_en.pdf.
3. Baranwal A, Anand A, Singh R, Deka M, Paul A, Borgohain S, Roy N. Managing the Earth's Biggest Mass Gathering Event and WASH Conditions: Maha Kumbh Mela (India). PLOS Currents Disasters. 2015 Apr 13. Edition 1. Available at <http://currents.plos.org/disasters/article/managing-the-earths-biggest-mass-gathering-event-and-wash-conditions-maha-kumbh-mela-india/>
4. Sridhar S, Gautret P, Brouqui P. A comprehensive review of the Kumbh Mela: identifying risks for spread of infectious diseases, Clinical Microbiology and Infection, 2015; 21 (2): 128-133 Available at <http://www.sciencedirect.com/science/article/pii/S1198743X14001074>.
5. Deka M, Paul A, Field Study, Report Compilation and Documentation, Doctors For You, NERO, North East Regional Office, 2013. Available at <http://doctorsforyou.org/files/field-report/Kumbh%20Mela%20Final%20Report.pdf>.
6. Mass Casualty Incident Management: Virginia Model (Green, 2000). A Paper Presented At the 2000 National Disaster Medical System Conference. Available at <https://facultystaff.richmond.edu/~wgreen/conf7.pdf>.
7. Mass Gathering Event Management, A Case Study of Maha Kumbh, 2013, Allahabad, Bihar State Disaster Management Authority. Available at <http://bsdma.org/images/publication/Kumbh%20Mela%20Case%20Study%20Full.pdf>.