



Mahaparinirvan Diwas Visit Report

Case Study at Chaitya Bhoomi

5th Dec – 6th December 2023

Version No. 2

Contents

1.	Introduction	1
2.	Purpose of the Study	1
3.	Site Analysis	2
4.	Preparations by MCGM	3
4.1.	Crowd Management Preparations	3
4.2.	Preparation for Emergencies	5
4.3.	Inter-Departmental Coordination	6
4.4.	Participation of Voluntary Organizations	7
5.	Crowd Management at Chaitya Bhoomi	10
6.	MCGM Arrangements for Mahaparinirvan Diwas Visitors	11
7.	Traffic Management	12
8.	Information, Education and Communication (IEC)	13
9.	Learnings and Way Forward	15

Table of Figures

Figure 1: Entrance to Chaitya Bhoomi	1
Figure 2: Fire Fighting Vehicle	4
Figure 3: Control Rooms at Chaitya Bhoomi	5
Figure 4: Facilities for Medical Emergencies	5
Figure 5: Coastal Rescue Equipment and Personnel	6
Figure 6: Layout at Shivaji Park	6
Figure 7: Samta Sainik Dal Volunteers supporting with crowd management	8
Figure 8: Volunteers Supporting in Waste Management	9
Figure 9: Watch Tower (North)	10
Figure 10: Map Showing Important Locations	11
Figure 11: Shelter Set Up for Visitors	11
Figure 12: Hirkani Kaksh at Shivaji Park	12
Figure 13: Press Note issued by Mumbai Traffic Police	12
Figure 14: A map displaying the arrangements around Chaitya Bhoomi and the Shivaji Park Ground	13
Figure 15: A message board urging visitors to use water per their needs	13
Figure 16: Police Observation Tower (G/N) next to an LED Installation	14

1. Introduction

Commemorated on December 6, Mahaparinirvan Diwas is a crucial annual event in the nation's calendar as it marks the death anniversary of Dr B.R Ambedkar, the architect of India's constitution and one of the towering leaders of the country. Every year, lakhs of people travel to Chaitya Bhoomi, the cremation place of Dr Ambedkar in Dadar, Mumbai, with this year's estimates by the Municipal Corporation of Greater Mumbai being in the range of 8 to 10 lakh visitors. The inflow of visitors begins almost two days before the event, with most of the visitors either leaving on the evening of December 6 or the subsequent day. Consequently, the area around Chaitya Bhoomi, comprising the iconic Shivaji Park ground, is crowded with people in the first week of December.



Figure 1: Entrance to Chaitya Bhoomi

Visitors travel to Chaitya Bhoomi from most of the states across the country, with the maximum visitors travelling from the Vidarbha region of Maharashtra, Madhya Pradesh, Uttar Pradesh, and a few districts of northern Karnataka and Gujarat. There are also Buddhist monks and religious followers from neighbouring countries like Tibet and Bhutan. This makes it critical for the administration to manage the crowds that are coming to the site from a crowd management perspective, from a law-and-order perspective, and from the perspective of preventing stampedes.

2. Purpose of the Study

Every year, large crowds gather at Chaitya Bhoomi on April 14, the birth anniversary of Dr Ambedkar and Mahaparinirvan Din, his death anniversary on December 6, a tradition that has continued for over four decades. However, despite such a massive gathering of people, the place has not experienced any stampede-like situation, major heat stroke, or fire-related incident, as on-field operations have been smooth and well-coordinated. The Project Management Unit (PMU) felt it

necessary to study the crowd management practices associated with this event for their possible replication in similar gatherings across Maharashtra.

The study was necessary from these three critical standpoints:

- Stampede not being a notified hazard yet, it is essential to see how MCGM, one of the largest municipal corporations, prepares for it.
- The PMU has been involved in the efforts to publish a gazette notification for notifying stampedes as a hazard. Thus, it is essential to have as much understanding of the local scenarios and contexts in Maharashtra.
- Visits such as this help in strengthening the case for notifying stampedes as a hazard.

This document could facilitate the exchange of ideas if events involving large crowds are planned in other locations in the state.

With these objectives, two members of the Project Management Unit (PMU) visited Chaitya Bhoomi on the evening of December 5th to understand the arrangements that were made for the event on the following day and develop perspectives for the things to watch out for during the day of the event. This was followed by a day-long visit on December 6th, where four members of the PMU met with officials from the Municipal Corporation of Greater Mumbai and a few volunteers. This document features a study of the proceedings at Chaitya Bhoomi based on crowd management, communication channels, distribution of essential facilities, inter-departmental coordination, participation of voluntary organisations and a summary of best practices that may be adopted at any future events that may be planned across the state.

3. Site Analysis

Three locations are of critical importance while analysing the crowd management around Chaitya Bhoomi:

1. Shivaji Park Ground: It hosts hundreds of book stalls, small shops selling merchandise associated with Dr Ambedkar and stages set up by multiple social and political organisations. Further, this is also the place where visitors stay and rest under the temporary shelters that were set up for the event.
2. Chaitya Bhoomi: This is Dr. Ambedkar's cremation place, where visitors offer their respect. It is situated beside the Dadar Chowpatty.
3. Siddhivinayak Temple: This temple, situated at Prabhadevi, is almost two kilometres away from Chaitya Bhoomi, and is significant as the arrangements for the management of the crowd during the event starts there.

4. Preparations by MCGM

As a part of the preparation for the event, MCGM held 10 to 20 rounds of meetings with all the concerned stakeholders, ensuring that the roles and responsibilities of all the respective stakeholders are clearly established, and every final detail worked out for the event two to three months in advance. Such a level of planning, preparation, and coordination was critical to effectively managing an event and crowd on such a large scale. The final preparation plan is also presented to the Chief Minister of Maharashtra for his review and input. As this is a yearly process, the plans that were prepared for the previous year becomes the baseline for action and improvement for MCGM. The estimation of the crowds also happens based on the previous years' preparation. MCGM assumes a 20% increase in crowd over the previous year's estimates for undertaking all the preparedness activities for the event.

All the preparedness efforts and insights on crowd management, crowd flow, and venue standards resulted from managing previous events, which equipped them to make well-informed decisions and avoid many cascading challenges.

4.1. Crowd Management Preparations

The Municipal Corporation of Greater Mumbai prepares for the event by undertaking several steps:

1. To free the streets surrounding the event location, the MCGM begins by moving out hawkers and street vendors, from the railway station to every road that leads to Shivaji Park and Chaitya Bhoomi. They are allowed back on the street only after December 8, thus allowing visitors to reach Chaitya Bhoomi seamlessly. Only vendors related to the event selling photo frames, idols, and books are allowed to operate on the streets. However, their arrangement is such that it does not create any inconvenience to pedestrians and visitors.
2. Every year, MCGM coordinates with both Central Railways and Western Railways to operate additional express trains between December 4 and December 7, leading to visitors reaching the Chhatrapati Shivaji Maharaj Terminus, Dadar, Mumbai Central, Bandra and Borivali railway stations in large numbers. Help desks are set up at these stations, with personnel trained in firefighting, first aid, rescue, CPR and crowd management managing them.



Figure 2: Fire Fighting Vehicle

3. Private vendors are onboarded for performing maintenance works, setting up of shelters and stalls, arrangements for food, packaged water and other provisions through vendors. These tenders are published a month in advance, and orders are given for services such as electricity cabling, LED screens, waterproof tents, mobile bathrooms and toilets, fire tenders, etc., to be delivered for the event.
4. Mahaparinirvan Diwas being one of the most significant events for MCGM, the administration engages with the Mumbai Police, Traffic Police, Rapid Action Force and the State Reserve Police Force, in addition to the deployment of Brihan Mumbai Security Forces (BMSF).
5. To effectively manage the event, control rooms are set up for the Police, Fire Services, and MCGM at Shivaji Park in addition to the mobile control rooms deployed at the Chaitya Bhoomi. These control rooms are manned 24/7. The Police control room is resourced with Police personnel monitoring the CCTV feeds, making security announcements to the public, and coordinating different scenarios over the radio. The Fire Services control room is resourced with firefighters who also make routine rounds of the venue to be on the lookout for any emergency scenarios. MCGM's control room hosts a senior official from all departments of MCGM to address any tasks that their department will have to perform, and coordinate with their department officials throughout the venue to ensure appropriate action is taken.

In addition, there is a control room set up for the management of all visual media, i.e., the operation of the cameras and drones. From this room, all the LED displays that are placed in the locality of the venue are being controlled.



Figure 3: Control Rooms at Chaitya Bhoomi

4.2. Preparation for Emergencies

As a part of the preparations for the event, the organisers had also to prepare for emergencies and unexpected situations. To that effect, the Municipal Corporation of Greater Mumbai had arranged for ten ambulances to be on stand-by to respond to any medical emergencies.



Figure 4: Facilities for Medical Emergencies

MCGM had also coordinated with hospitals close to Chaitya Bhoomi like the King Edward Memorial Hospital (Parel), Lokmanya Tilak Municipal Medical College and General Hospital (Sion), Topiwala National Medical College and Nair Charitable Hospital (Mumbai Central).

Ten municipal transport buses (BEST buses) were also arranged to be on stand-by to provide transportation support for the timely evacuation of a large group of people in case of an emergency.

MCGM had also arranged for four municipal schools, including the Dadar Woolen Mills Municipal School, Mahim and the City of Los Angeles Municipal School, Matunga to be on standby to provide accommodation in case of an emergency.

The Municipal Corporation had also stationed response forces on both ends of Dadar Beach to save people in the event of drowning accidents. A watch tower at Chaitya Bhoomi was equipped with searchlights, and motorboats were kept on standby in an emergency.



Figure 5: Coastal Rescue Equipment and Personnel



Figure 6: Layout at Shivaji Park

4.3. Inter-Departmental Coordination

Organizing an event of such a scale requires coordination among various Municipal Corporation departments and other agencies and departments in the city. While the Maintenance Department had the primary role in organizing the event, they did so in close coordination and ensured the distribution of roles and responsibilities with other departments.

Department	Responsibility
Maintenance Department	Overall planning of the event including deciding on the location of various facilities in and around Shivaji Park and the queue to Chaitya Bhoomi
Sewerage Department	Upkeep and maintenance of toilets

Solid Waste Management Department	Management of solid waste and the general cleanliness of Shivaji Park and the surrounding roads
Licenses Department and the Markets Department	Clearance of the roadside shops and street vendors in the Dadar area
Health Department	Setting up of medical facilities for dental, general medicine, ophthalmic, ENT, cardiology, gynaecology, orthopedics, and dermatology
Fire Department	Firefighting and Emergency Response
Brihan Mumbai Security Forces (BMSF)	Crowd Control

Although the event took place in the G/N ward of Mumbai, officials from all the other wards of Mumbai from respective departments had come to support the smooth conduct of the event by working in coordination with their respective departmental staff in taking care of the smooth implementation of their responsibilities.

The Brihan Mumbai Security Forces (BMSF) were also supported by forces from other agencies such as the State Reserve Police Force, Rapid Action Force, Mumbai Traffic Police, Railway Police Force, and the Samta Sainik Dal in maintaining law and order, ensuring ease of movement for pedestrians and vehicular traffic, and any other crowd control support.

4.4. Participation of Voluntary Organizations

Multiple volunteer organizations, ranging from social and community-based institutions to religious societies, offered their assistance to ensure the smooth functioning of this event. The officials at MCGM mentioned about the large amount of support they receive from many voluntary organisations for the management of this event and that they try to actively coordinate with them. Some of the volunteer support that was available during the event were:

- **National Service Scheme (NSS)** Student volunteers supported the police at the Dadar railway station in providing directions to people visiting Chaitya Bhumi.

- **Bhartiya Bauddh Mahasabha's** Samata Sainik Dal volunteers helped the civic body and the police force in traffic and crowd management. Volunteers from their Thane battalion were present at the event to provide their service. Their duties were assigned by their senior officials and the same was mentioned in the ID

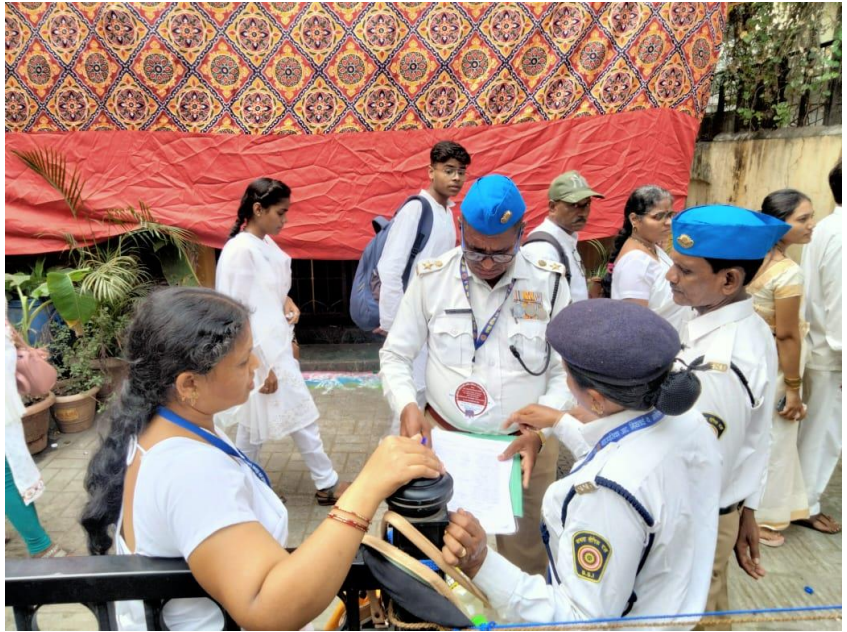


Figure 7: Samta Sainik Dal Volunteers supporting with crowd management

cards provided to them. They provide assistance to the visitors and also ensure that there are no additional pressure on the administration by helping prevent any untoward situations.

- **Ambedkarwadi Sainik Sanghatana**, an NGO of local volunteers, worked to collect garbage on the location and ensure cleanliness with 750-800 volunteers on the day provided with a sanitation kit. Volunteers were mainly college students working across the railway lines (Central, Harbour, Western, etc.) with one assigned leader for 150-200 volunteers looking after the work. In coordination with the MCGM sanitation team, they collect garbage from the streets and dispose of it in the sanitation vehicles at regular intervals.





Figure 8: Volunteers Supporting in Waste Management

Voluntary assistance provided by these organisations to MCGM includes directing visitors from the Dadar railway station to Shivaji Park or Chaitya Bhoomi, distributing food packets and water bottles, raising awareness about the use of dustbins, and encouraging people to avoid littering. Owing to their effort, the area around Chaitya Bhoomi, the main road (Swatantryaveer Savarkar road) and a large section surrounding Shivaji Park was more clean and less littered.

Additionally, a few voluntary organisations helped donate lunch packets, biscuits, water bottles and medicines, thus assisting the civic body in bridging the gap between the availability of essential supplies and their growing demand from visitors.

While the challenge of maintaining cleanliness exists in places where a large crowd queues up to access food, water or toilet facilities, better volunteer management and a more efficient arrangement of dustbins could help address these concerns. Pre-registration of the voluntary organisations and the volunteers that wish to support the event should be taken up by MCGM, considering this event occurs every year and preparing a database inventory of organisations, the services they provide, their contact person and the location of their service will help to map and organise their services in a better way.

5. Crowd Management at Chaitya Bhoomi

Separating the long queue of people from Shivaji Park is the most critical feature of crowd management by the Municipal Corporation of Greater Mumbai. From Chaitya Bhoomi, the queue extends to the South on the Swatantryaveer Savarkar road until the Siddhivinayak Temple at Prabhadevi, covering almost two kilometers. On the other hand, as Shivaji Park is north of Chaitya Bhoomi, the activities on the ground are independent of the long queue. Most visitors leave Shivaji Park, join the queue at Siddhivinayak Temple, and wait patiently for their turn to reach Chaitya Bhoomi and leave after the Darshan. As the major part of the crowd moves sequentially through these locations, the likelihood of a crowd collapse, crush, or stampede is extremely low.



Figure 9: Watch Tower (North)

There were four watch towers on the Shivaji Park ground along with a control room each at Chaitya Bhoomi and Shivaji Park to monitor the movement of the people continuously.

Additionally, the queue moves through the footpath on Swatantryaveer Savarkar Road, whereas the main road is kept open for visitors and volunteers to move to any of the three above-mentioned locations. The footpath is shaded to avoid prolonged exposure to sunlight. There are water stations every 100 to 150 meters with additional glucose biscuits and medicines. The footpath is wide enough to ensure there is moving space for people until they reach Chaitya Bhoomi.

There is a separate route for VIPs, leaders and politicians who reach Chaitya Bhoomi at regular intervals, and a strict security protocol is followed prior to entry. Additionally, there were strict

instructions issued by the MCGM to avoid any VIP movement on the Shivaji Park premises to avoid unnecessary excitement or commotion among the crowds.

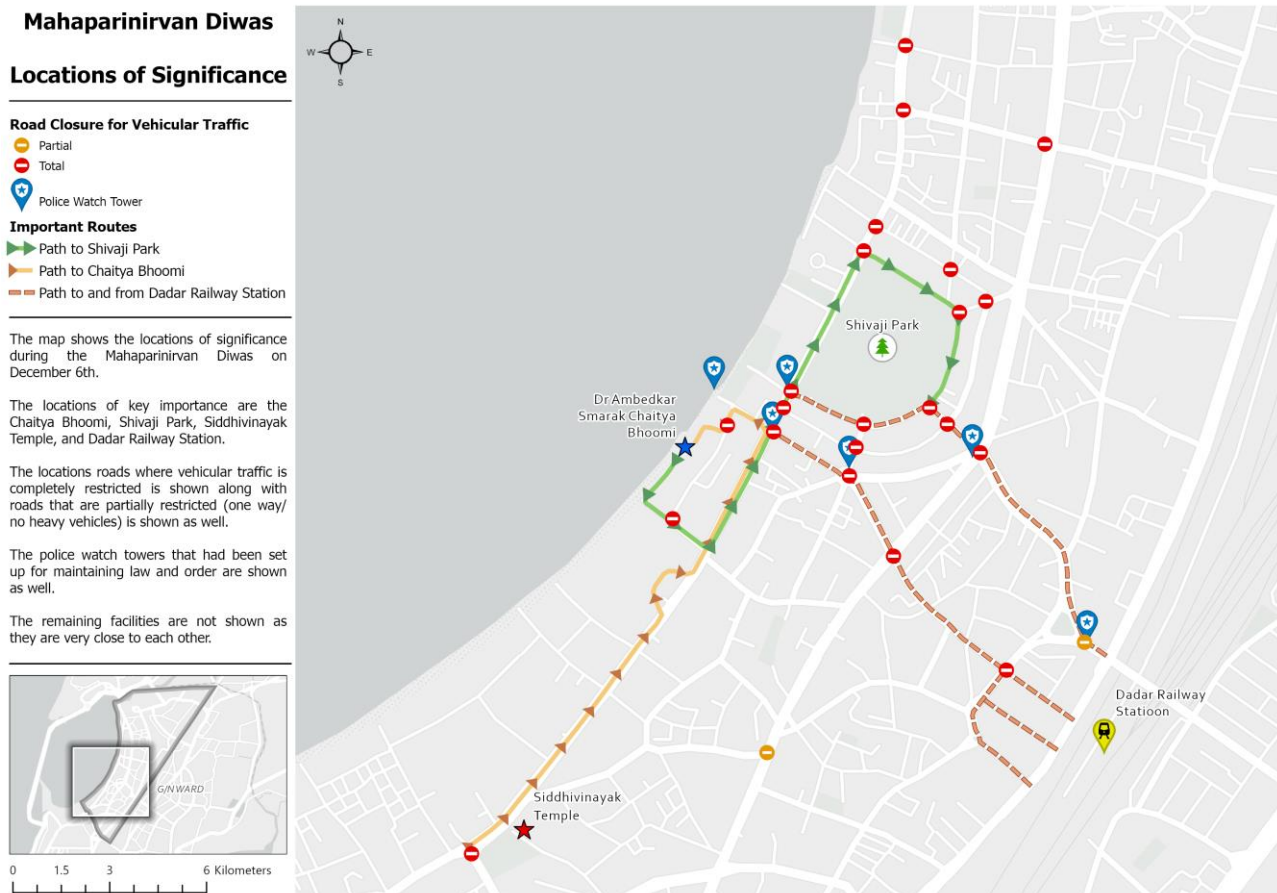


Figure 10: Map Showing Important Locations

6. MCGM Arrangements for Mahaparinirvan Diwas Visitors

Anticipating a turnout of close to 8 to 10 lakh people for this year's Mahaparinirvan Diwas celebrations, the Municipal Corporation of Greater Mumbai ensures a steady supply of food, water and medical facilities.

Close to 2 lakh mineral water bottles and m packets were procured this year, with an additional procurement of more than a lakh food packets. This procurement increased from last year's twenty-five thousand waer bottles and biscuit packets. The Municipal Corporation of Greater Mumbai also received additional food, biscuit packets, and bottled water from voluntary organisations to fill the gap between the available stock and the growing visitor demand.



Figure 11: Shelter Set Up for Visitors

Additionally, twelve water tankers were stationed in the area surrounding Shivaji Park, providing drinking water to the visitors.

The Pandals and shelters at Shivaji Park consisted of an elevated wooden floor about one foot above the ground to facilitate water flow in case of rain. Water was sprinkled on the ground, and the entire ground was covered in green shade nets three days before setting up the Pandals to ensure minimal dust in and around the ground. The Pandals and shelters were well-lit and equipped with LED screens, fans, charging stations, and firefighting equipment.

Apart from the book stalls, shops, and pandals, the Shivaji Park ground also offered medical facilities. In addition to providing generic medicines, the municipal administration had arranged specialised medical services like ophthalmologists, dentists, ENT specialists, cardiologists, gynaecologists, orthopaedics and dermatologists.



Figure 12: Hirkani Kaksh at Shivaji Park

The most notable of all arrangements was the setting up of Hirkani Kaksh, a breastfeeding center for lactating women that occupied one corner of the Shivaji Park premises.

Close to three hundred toilets and several shower facilities were arranged inside the ground. Additionally, almost two hundred toilets were installed outside the ground. The Municipal Corporation of Greater Mumbai's team cleaned these toilets every two hours. They also checked if the taps and the showers needed to be replaced and if every installation had an adequate water

supply every hour. The Municipal Corporation's team offered a 24-hour service during the event with four people assigned to a task, each doing a 6-hour shift.

7. Traffic Management

The Mumbai public were informed about the changes in the movement of vehicular traffic well in advance. The press note shared by Mumbai Police on November 30, 2023, informed people about the one-way closure of roads, substitute routes in case of heavy traffic congestion, no-parking zones and the alternate availability of parking spaces, food vehicle arrangements, and the closure of the usual taxi stands in Dadar from December 4 to December 7. This press

Mumbai Traffic Police
@MTPHereToHelp

On the occasion of 67th Death Anniversary of Bharat Ratna Dr. Babasaheb Ambedkar ie. Mahaparinirvan Din, large number of followers will be visiting Chaitya Bhoomi, Shivaji Park Dadar.

PHASE NOTE

The 67th Death Anniversary of Bharat Ratna Dr. Babasaheb Ambedkar ie. Mahaparinirvan Din will be observed on 4th December 2023 at Chaitya Bhoomi, Shivaji Park Dadar, Mumbai. Large numbers of followers of Dr. Babasaheb Ambedkar will be visiting Chaitya Bhoomi, Shivaji Park from 4th December 2023 to 7th December 2023. Due to this congregation as well as large scale of work around Shivaji Park, the movement of vehicular traffic will be affected on adjoining roads in the vicinity of Chaitya Bhoomi, Shivaji Park. (Date: Shivaji Park Chaitya Bhoomi area is closed)

In order to ensure smooth flow of traffic, following traffic arrangements shall be imposed from 04.12.2023 to 07.12.2023.

ADDITIONAL CLOSURE OF ROADS

No.	ROAD NAME	Direction	Remarks
1	Chaitya Bhoomi Road	One Way	From Chaitya Bhoomi towards Shivaji Park
2	Chaitya Bhoomi Road	One Way	From Shivaji Park towards Chaitya Bhoomi
3	Chaitya Bhoomi Road	One Way	From Chaitya Bhoomi towards Shivaji Park
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2:24 PM · Dec 3, 2023 · 9,952 Views

Figure 13: Press Note issued by Mumbai Traffic Police

note was shared with the print and electronic media and on the Municipal Corporation's social media platforms (<https://twitter.com/MTPHereToHelp/status/1731235559962800589>).

Additionally, on the day of the event and on the days preceding it, police personnel were present on all roads in and around the venue to ensure the smooth flow of vehicular traffic and the crowd.

8. Information, Education and Communication (IEC)

The Municipal Corporation of Greater Mumbai has put up banners and hoardings at every strategic location near Chaitya Bhoomi, Shivaji Park, the main road (Swatantryaveer Savarkar road) and the side roads and streets that lead to the location along with the use of video messaging through LED screens.

Anticipating a substantial number of first-time visitors reaching the venue, the Municipal Corporation displayed banners from Dadar railway station to Chaitya Bhoomi. Messaging included directions to the venue from Dadar railway station, signage for access to water, toilets and bathroom facilities, and charts featuring tide times. Chaitya Bhoomi lies along the coastline, and people visit the Dadar beach in large numbers; hence, the display of tide timings was critical. Besides the banners, maps were mounted at multiple locations for a seamless navigation of visitors.



Figure 14: A map displaying the arrangements around Chaitya Bhoomi and the Shivaji Park Ground



Figure 15: A message board urging visitors to use water per their needs

LED Screens were mounted at Shivaji Park and the surrounding area for continuous video broadcast of the proceedings at Chaitya Bhoomi. The Municipal Corporation also used two drones to click photos and monitor crowd management. Drones can record and transmit images in real-time; hence, their use during mass events may shorten the time taken to reach casualties and complement existing medical

services.

The LED screens and boards also flashed awareness messages like water conservation, hygiene, and cleanliness.

There were audio announcements that mentioned the day's proceedings, communicated essential updates, and assisted in locating people who got lost in the crowd. Control towers were established in the Shivaji Park premises and on the main road, and they broadcasted the audio announcements through loudspeakers.



Figure 16: Police Observation Tower (G/N) next to an LED Installation

9. Learnings and Way Forward

1. The Municipal Corporation has been working with volunteers for several years. Efforts put in by volunteers in a range of activities like traffic management, distribution of food, water, and medicines and maintaining hygiene and cleanliness supplement the Municipal Corporation's efforts in crowd management. Consequently, the area around Chaitya Bhoomi, the western and southern ends of Shivaji Park and the main road to Siddhivinayak Temple is clean and substantially less littered.

However, the Municipal Corporation should ensure an even distribution of volunteers in every area of the event. While the southern and western end of Shivaji Park (closer to Chaitya Bhoomi and the Dadar beach) is efficiently managed, a lesser number of volunteers appear on its eastern and northern end (closer to Shiv Sena Bhavan), making it cluttered and littered. An even distribution of volunteers could have a better impact next year.

2. *Hirkani Kaksh*, the special shelter reserved for breastfeeding on the Shivaji Park ground, is an addition to the list of essential facilities during the event. This is the first time the Municipal Corporation has introduced this facility, reflecting the civic body's inclusive commitment towards the vulnerable sections of society.
3. To avoid inconvenience and a sudden rush of people in the middle of the ground, the Municipal Corporation sets up food stalls, water stations and toilet and bath facilities in the outer peripheries of the Shivaji Park. The ground is reserved for *pandals*, *shelters* and medical facilities. Such an arrangement contributes to reducing the likelihood of a stampede-like situation.
4. The arrangements that were made for crowd management at the event, although had a great foresight to prevent various emergencies, did not include arrangements for senior citizens, persons with locomotor difficulties, and persons without vision. Although the individuals falling into this category were permitted to visit the Chaitya Bhoomi through the entrance designated for VIPs, they did not have any separate arrangements at Shivaji Park, thus, making it a challenge for such individuals travelling from longer distances. Further, some of the locations were extremely crowded as a large amount of people were moving which would be difficult for such individuals to navigate. There is a need to establish separate facilities for them at Shivaji Park and protected pathways to get there as well.
5. The civic body conducts multiple inter-departmental meetings, which are reviewed at every level, culminating in a detailed review by the Hon. Chief Minister. These measures are followed by declaring December 6 as a public holiday for Mumbai, an advanced release of

the press note for citizens and measures to ease traffic on the roads. The civic body's social media handles are critical in disseminating updates during this period.

However, this event has no formal Standard Operating Procedure (SOP). While the legacy associated with the event helps the Municipal Corporation plan and make necessary arrangements, an *ad hoc* approach to new challenges could present a risk of under-preparedness in an unfamiliar emergency. Moreover, such an approach also restricts building an institutional memory as the stakeholders' perception of the overall processes becomes progressively automated over time. It also presents a critical challenge in transferring this expertise to other stakeholders who might not have similar experience in crowd and event management. Thus, preparation of an SOP for the event is critical.

6. While the streets of Dadar are crowded with hawkers and shopkeepers throughout the year, the civic body ensures that the road from the Dadar railway station leading to Shivaji Park and Chaitya Bhoomi is free of hawkers from December 3 to December 8. This step is critical against the backdrop of a large assembly of crowds and helps avoid a stampede-like situation.
7. During the period of the event, the streets of Dadar, although free from the street vendors and hawkers that are normally present there, still see a large influx of vendors who sell memorabilia and other artifacts related to the event. However, the formal process for registration of vendors coming for the event only focuses on the registration for the stalls set up within Shivaji Park but not on the vendors on the streets of Dadar. It is critical to ensure that these vendors are also registered formally and stall IDs be given as it would help in preventing any untoward incidents.
8. A scientific method to assess the number of visitors is yet to be adopted. The total number of visitors is estimated by assuming an increment of 20% from the previous year's estimated attendance. Consequently, the assessment of infrastructural requirements is based on the very same assumption.

Further, the peak time for the gathering of the crowd also needs to be studied to better manage the day-to-day life of the locals and also be on alert to prevent and respond to any untoward incidents. In addition, the mode of transport of the visitors also needs to be studied and understood well to coordinate any response that might be required.

9. Although there were signages in the entire locality to guide the visitors, it has to be further studied to understand their usefulness to the visitors in terms of comprehension, ease of use, etc.

References:

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