

{ THE BIG PICTURE }

The Maha Kumbh of faith is also a logistical marvel

The spectacle reflects India's ability to honour its ancient traditions while embracing modern advancements

The Kumbh Mela symbolises faith, unity, and humanity's timeless connection to the divine. It commemorates the spilling of the nectar of immortality (*amrit*) at four sacred sites — Prayagraj, Haridwar, Ujjain, and Nashik

— during a cosmic struggle, with its timing dictated by celestial alignments. Over time, Kumbh Mela has evolved, blending ancient traditions with modern innovations.

On February 4, 2019, Kumbh Mela witnessed the largest peaceful gathering of humanity ever recorded. This extraordinary event is a celebration of faith, community, and commerce. With fairs, educational events, religious discourses by saints, mass gatherings of monks and diverse entertainment, the Kumbh exemplifies the vibrant ethos of Indian society.

The 2019 edition in Prayagraj was particularly remarkable, hosting an estimated 240 million visitors over 50 days, with 30 million attending on February 4 alone. Held at the confluence of the Ganga, Yamuna, and the fabled Saraswati rivers, preparations included a sprawling tent city across 3,200 hectares with 440 km of temporary roads, 22 pontoon bridges, nearly 50,000 LED streetlights, and extensive sanitation infrastructure.

Prime Minister Narendra Modi's visit to the Kumbh Mela in 2019 was a gesture of

gratitude to the organisers and workers who made the event a global success.

The 2019 Kumbh set new benchmarks for cleanliness and public sanitation. Compared to just 5,000 community toilets in 2013, the 2019 event saw 122,500 toilets, complemented by 20,000 dustbins and 160 waste transport vehicles. Innovative measures, such as water jet spray machines for cleaning, significantly reduced water wastage and eased sanitation work.

Toilets were strategically placed for accessibility and included gender-specific and disability-friendly designs. Pink toilets for women, serviced by female workers, encouraged adoption, while elderly-friendly toilets addressed inclusivity. The introduction of impervious sewage tanks eliminated the risk of river contamination.

One of the standout innovations was an odour-dispelling solution, first tested during the 2018 Magh Mela and scaled up for Kumbh 2019. Produced on-site by student researchers, nearly 65,000 litres of this solution were manufactured daily. Additionally, *swachhagrahis* (cleanliness volunteers) played a pivotal role in maintaining sanitation and promoting toilet usage. Equipped with IoT-enabled mobile apps, these volunteers monitored 60,000 toilets across the sprawling grounds, ensuring real-time issue resolution. This initiative not only enhanced operational efficiency but also empowered the volunteers, many of whom were youth and women. In 2017, UNESCO inscribed the Kumbh Mela on its list of Intangible Cultural Heritage of Humanity. The 2019 edition lived up to this honour, showcasing India's capacity for organising events of

unparalleled scale and significance.

With the 2025 Mahakumbh Mela in Prayagraj expected to host over 300 million pilgrims from across the globe, the scale and ambition of the preparations are unprecedented under the leadership of Uttar Pradesh chief minister Yogi Adityanath. Guided by the successes of the transformative 2019 Mela, the upcoming edition promises a seamless blend of devotion, technology, and sustainability, setting new global benchmarks.

One key focus is on expanding the venue and accessibility. The number of ghats will be significantly increased to enable safe and orderly bathing, even during peak days, supported by advanced crowd management techniques to avoid congestion. Transport infrastructure is being enhanced, with special trains and improved railway networks connecting Prayagraj to major cities. Multi-lane highways, upgraded intersections, and expanded parking areas are being developed to manage heavy vehicular traffic. Additionally, Prayagraj airport is undergoing an expansion to handle increased passenger capacity, with chartered flights introduced for international pilgrims.

To cater to the millions of pilgrims, public amenities are being upgraded on an unprecedented scale. Over 50,000 eco-friendly toilets and portable sanitation units will ensure hygiene and convenience. Clean drinking water facilities, solar-powered lighting, and expansive shelters are being developed, reflecting a commitment to pilgrims' comfort and well-being. Technology will play a pivotal role in transforming the Mahakumbh 2025 experience.

Artificial Intelligence (AI)-powered crowd control systems, supported by drones, will monitor real-time crowd density to prevent



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overcrowding. Pilgrims will have access to dedicated mobile apps offering real-time information on routes, *ghat* timings, weather updates, and emergency services. Moreover, a cashless economy will be promoted through digital payment systems.

Sustainability is a cornerstone of the 2025 Mela, building on the green initiatives introduced in 2019. A zero-waste policy will guide operations, with extensive recycling systems and composting facilities in place. Plastic use will be strictly regulated, and biodegradable alternatives will be promoted for packaging and utilities. Advanced water treatment plants and real-time quality monitoring systems will ensure the sanctity of the Ganga and Yamuna rivers, while massive afforestation drives around the riverbanks aim to mitigate soil erosion and improve water retention. Renewable energy sources like solar panels and bio-energy systems will power large sections of the Mela, significantly reducing its carbon footprint.

Safety and security are paramount for an event of this scale. Over 10,000 CCTV cameras with AI-enhanced facial recognition technology will monitor the premises, while thousands of personnel, including paramedics, fire services, and disaster response teams, will remain on standby. Temporary hospitals and clinics, equipped with advanced medical facilities and supported by telemedicine services, will ensure timely health care for attendees.

The Mahakumbh Mela 2025 will also be a cultural and spiritual showcase. Dedicated pavilions will feature traditional music, dance, and art from across the country, with exhibitions on the history and science of the Kumbh Mela, complemented by VR experiences. Interfaith dialogues involving global spiritual leaders and scholars will foster harmony and understanding among diverse faiths. Special programmes for youth, including workshops, clean-up drives, and volunteering opportunities, aim to instil

responsibility and spiritual growth.

To enhance its global appeal, tourist-friendly initiatives such as multilingual information centres and guided tours will cater to foreign visitors. Spiritual tourism packages, including heritage walks, will highlight the region's rich history. Inclusive provisions for differently abled individuals, including wheelchair accessible zones and personalised assistance, will ensure a welcoming environment for all.

The 2025 Mahakumbh Mela is poised to be a spiritual and logistical marvel, uniting faith, innovation, and sustainability on an unprecedented scale. It reflects India's ability to honour our ancient traditions while embracing modern advancements, offering an unforgettable experience for millions worldwide.

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