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"Socio-Cultural and Economic Implications of Developing Mahakumbh Nagar: A Comprehensive Analysis of Urban Transformation and Community Impact"

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Abstract

The development of Mahakumbh Nagar for the 2025 Maha Kumbh Mela in Prayagraj represents one of the most ambitious urban transformations undertaken for a religious gathering in India. Rooted in the spiritual ethos expressed in the *Shrimad Bhagavad Gita*—"कर्मण्येवाधिकारस्ते मा फलेषु कदाचन"—the initiative reflects a collective endeavour to blend tradition with modern urban planning. This study offers a comprehensive analysis of the socio-cultural, economic, environmental, and infrastructural implications of Mahakumbh Nagar's development. A mixed-methods research design was employed, drawing on data from 112 Google Form respondents and 1,000 offline participants, supplemented by interviews, focus group discussions, and secondary datasets. Results indicate strong socio-cultural affirmation, with 82% of respondents agreeing that Mahakumbh Nagar contributes significantly to cultural preservation and strengthens India's spiritual identity. However, only 12% felt that temporary infrastructure could support long-term cultural continuity. Economic assessments revealed the creation of approximately 50,000 employment opportunities and an estimated ₹5,000 crore in revenue, though local communities also reported challenges such as rising prices and temporary displacement. Environmentally, the initiative showcased progress through enhanced waste management systems handling nearly 2,800 tons/day, alongside solar installations meeting 20% of total energy demand, contributing to a notable reduction in carbon emissions. Infrastructure development included over 200 km of roads and 100,000 sanitation units, leading to an 80% reduction in open defecation. However, issues related to waste segregation and community resettlement remain. Overall, the study concludes that while Mahakumbh Nagar demonstrates transformative urban planning, future iterations must prioritize sustainability, cultural continuity, and community-inclusive development models.

Keywords: Mahakumbh Nagar, Cultural Preservation, Economic Impact, Environmental Sustainability, Urban Transformation, etc.

Introduction

Religious gatherings have historically shaped the cultural, social, and economic landscape of India, serving as powerful expressions of collective identity and civilizational continuity. Among these, the Maha Kumbh Mela holds unparalleled prominence as the world's largest congregation of pilgrims, attracting millions who seek spiritual purification and cultural communion. The city of Prayagraj, located at the confluence of the Ganga, Yamuna, and the mythological Saraswati rivers, transforms into a vast spiritual center every twelve years, embodying the sacred ethos that has sustained Indian civilization for millennia (Mukherjee, 2021). In preparation for the 2025 Maha Kumbh Mela, the Government of Uttar Pradesh conceptualized and developed Mahakumbh Nagar, a temporary but large-scale urban settlement designed to accommodate pilgrims while

ensuring safety, accessibility, and sustainability. The initiative represents a unique intersection of religion, urban planning, environmental stewardship, and socio-economic transformation.

The moral and philosophical foundations of this project resonate with the teachings of ancient scriptures, particularly the *Shrimad Bhagavad Gita*, which states: **"कर्मण्येवाधिकारस्ते मा फलेषु कदाचन"**—a principle that emphasizes duty without attachment to outcomes. This ideal reflects the spirit behind the massive administrative and infrastructural efforts undertaken for the event, where public institutions, civic bodies, religious organizations, business communities, and local residents collaborate to ensure the success of a global religious phenomenon (Sharma, 2020).

Urban transformations for mega-events, whether religious, cultural, or sporting, have been discussed extensively in urban studies and development literature. However, the development of Mahakumbh Nagar presents a distinct case due to its temporary yet large-scale nature, cultural centrality, and multi-sectoral implications. Temporary cities, often termed "pop-up megacities," draw attention to the complexities of providing infrastructure, sanitation, energy, mobility, and governance systems to millions within a limited temporal framework (Gold & Gold, 2017). In this context, Mahakumbh Nagar is not only a logistical response to crowd management but a living laboratory of urban innovation, community engagement, and socio-cultural resilience.

Historically, the Kumbh Mela has served as a critical site of cultural preservation, spiritual renewal, and social interaction. It plays a significant role in maintaining intangible cultural heritage by reinforcing rituals, traditions, myths, and collective memories passed down across generations (UNESCO, 2022). The 2019 Kumbh Mela was globally recognized by UNESCO for its intangible cultural heritage value, highlighting its significance beyond the religious sphere (UNESCO, 2019). With the expansion of modern infrastructure, technological systems, and public services in 2025, the development of Mahakumbh Nagar seeks to balance the preservation of cultural authenticity with the demands of contemporary urban life.

This introduction aims to contextualize the socio-cultural, economic, environmental, and infrastructural implications of developing Mahakumbh Nagar as part of the 2025 Maha Kumbh Mela, grounded in both theoretical perspectives and empirical observations. The study draws from 1,112 stakeholder responses—112 via Google Forms and 1,000 through offline surveys—collected from residents, pilgrims, traders, volunteers, and administrative personnel. The mixed-method approach enables a multi-dimensional understanding of perceptions, challenges, and anticipated outcomes associated with the large-scale transformation taking place in Prayagraj.

[1] Socio-Cultural Significance and Transformation

The cultural geography of Prayagraj is deeply intertwined with sacred narratives, pilgrimage traditions, and ritual practices. The Kumbh Mela symbolizes collective belonging, spiritual democratization, and cultural continuity, attracting individuals from all social, economic, and geographic backgrounds (Darian, 2020). The development of Mahakumbh Nagar reinforces these traditions by providing a structured space for religious expression, community interactions, and intercultural engagements. According to cultural anthropologists, temporary ritual settlements such as Mahakumbh Nagar enable the creation of a "liminal space" where participants momentarily step out of their daily lives to engage in spiritual pursuits (Turner, 1974).

The expansion of infrastructure and services reflects efforts to modernize pilgrimage experiences while retaining the sanctity of traditions. Survey responses from this study indicate that 82% of respondents believe Mahakumbh Nagar contributes positively to cultural preservation by protecting rituals, providing safe spaces for gatherings, and improving the overall experience for pilgrims. However, concerns remain regarding the temporary nature of the settlement, as only 12% of participants felt it contributes meaningfully to long-term cultural preservation. This tension between tradition and modernization forms a central theme in the study.

[2] Economic Implications and Urban Opportunities

Large-scale religious gatherings have profound economic implications for host cities. They generate revenue, create employment, stimulate tourism, and enhance economic mobility for local businesses (Chaudhary, 2015). The development of Mahakumbh Nagar for the 2025 event is estimated to have generated 50,000 jobs, spanning sectors like construction, hospitality, transportation, food services, waste management, and security. Previous studies have shown that Kumbh Melas significantly boost local economies through increased demand for goods and services, temporary business expansion, and government investments (NITI Aayog, 2019).

The current study found that while traders and service providers reported significant economic benefits—such as increased income and expanded business opportunities—local residents expressed concerns regarding price inflation, temporary displacement, and unequal distribution of economic gains. This reflects broader debates in urban development literature about the economic benefits and socio-economic inequalities associated with mega-event urbanism (Müller, 2015).

[3] Environmental Sustainability and Waste Management Challenges

Environmental sustainability is a core concern for events of this magnitude. The 2025 Mahakumbh Nagar initiative introduced advanced waste management systems, renewable energy solutions, and sanitation infrastructure to reduce environmental pressures. Reports indicate that nearly 2,800 tons/day of waste were processed using scientific disposal systems, and solar power installations provided 20% of the energy supply, reducing carbon emissions by an estimated 10% compared to previous events (UP Pollution Control Board, 2024).

Despite these achievements, significant challenges persist. Survey feedback highlighted concerns about waste segregation, overflowing garbage points, and inconsistent recycling practices. Environmental scholars argue that temporary urban settlements must integrate long-term ecological planning to avoid adverse impacts on river systems, land quality, and nearby habitats (Singh & Narain, 2021). Thus, while Mahakumbh Nagar showcases progress, environmental sustainability remains a critical area for improvement.

[4] Infrastructure, Mobility, and Urban Planning Innovation

The scale of infrastructural development undertaken for Mahakumbh Nagar is extraordinary, with over 200 km of new roads, 100,000 sanitation units, emergency response systems, crowd monitoring technologies, drone surveillance, and digital mapping tools. These interventions demonstrate the evolving role of technology and urban design in managing religious gatherings (Awasthi & Sinha, 2020).

The temporary city operates as a fully functional urban ecosystem, equipped with power stations, water distribution networks, health clinics, communication hubs, transport nodes, and security outposts. Such large-scale infrastructural interventions align with global standards for mega-event planning but remain grounded in local socio-cultural contexts (Goldblatt, 2018). Yet, the construction phase led to concerns about temporary displacement, traffic disruptions, and noise pollution, particularly for communities residing near development zones.

The study highlights the need for participatory planning, where local stakeholders are meaningfully included in decision-making processes. This approach aligns with contemporary urban governance models that emphasize co-creation, transparency, and social inclusion (Healey, 2010).

[5] **Rationale and Research Gap**

While numerous studies have examined the historical, cultural, and religious significance of the Kumbh Mela, limited research has focused on the socio-cultural, economic, and environmental implications of developing planned temporary cities such as Mahakumbh Nagar. Most literature addresses crowd management, event logistics, and security systems but lacks deeper analysis of community perspectives, local economic restructuring, and long-term urban impacts (Verma & Gupta, 2020).

The present research fills this gap by:

[i] Integrating quantitative and qualitative data from 1,112 respondents.

[ii] Examining multi-sectoral impacts of the temporary city model.

[iii] Identifying challenges, community concerns, and opportunities for future policy planning.

[iv] Providing insights into sustainable, culturally grounded mega-event urbanism.

[6] Objectives of the Study

Based on this context, the study aims to:

[i] Evaluate the socio-cultural implications of Mahakumbh Nagar on community identity, cultural preservation, and social cohesion.

[ii] Assess the economic contributions and local livelihood impacts associated with the event.

[iii] Analyse environmental outcomes, including waste management efficiency and renewable energy adoption.

[iv] Examine infrastructural transformations and their effects on urban mobility, safety, and community well-being.

[v] Identify gaps, challenges, and recommendations for sustainable mega-event planning in India.

Materials and Methods

This study adopted a mixed-methods research design to examine the socio-cultural, economic, environmental, and infrastructural implications of the development of Mahakumbh Nagar for the 2025 Maha Kumbh Mela in Prayagraj. Both primary and secondary data sources were utilized to ensure comprehensive and triangulated findings.

[1] Study Area and Participants

The research was conducted in Prayagraj, specifically within the zones designated for Mahakumbh Nagar. A total of 1,112 participants were selected through purposive and convenience sampling, including 112 respondents surveyed through Google Forms and 1,000 respondents surveyed offline across local communities, traders, pilgrims, volunteers, administrative personnel, and temporary workers.

[2] Data Collection Tools

Primary data were collected using a structured questionnaire, semi-structured interviews, and focus group discussions (FGDs). The questionnaire consisted of multiple-choice and Likert-scale items addressing socio-cultural perceptions, economic impacts, environmental concerns, and infrastructural experiences. Offline surveys were conducted face-to-face, while online surveys were distributed via Google Forms. Interviews involved key informants such as municipal officers, event planners, environmental supervisors, and local community leaders. FGDs included groups of residents, shopkeepers, and volunteers to capture qualitative insights.

[3] Secondary Data Sources

Secondary data were obtained from government reports, NITI Aayog documents, UP Pollution Control Board environmental assessments, and UNESCO reports on cultural heritage.

[4] Data Analysis

Quantitative data were analysed using descriptive statistics, percentages, and cross-tabulations, whereas qualitative data from interviews and FGDs were thematically coded to identify recurring patterns. Data triangulation was employed to ensure reliability and validity.

Results

[1] Demographic Profile of Respondents

[1.1] Age Distribution

The online dataset (n=112) reflects a wide age range from adolescents (15 years) to elderly participants (49 years). The age group 31–35 years represents the largest cluster (7.1%), followed by 21–25 years and 45–49 years (5.4% each). The distribution suggests that adults in their working and socially active phase participated most actively in expressing views on Mahakumbh Nagar's development.

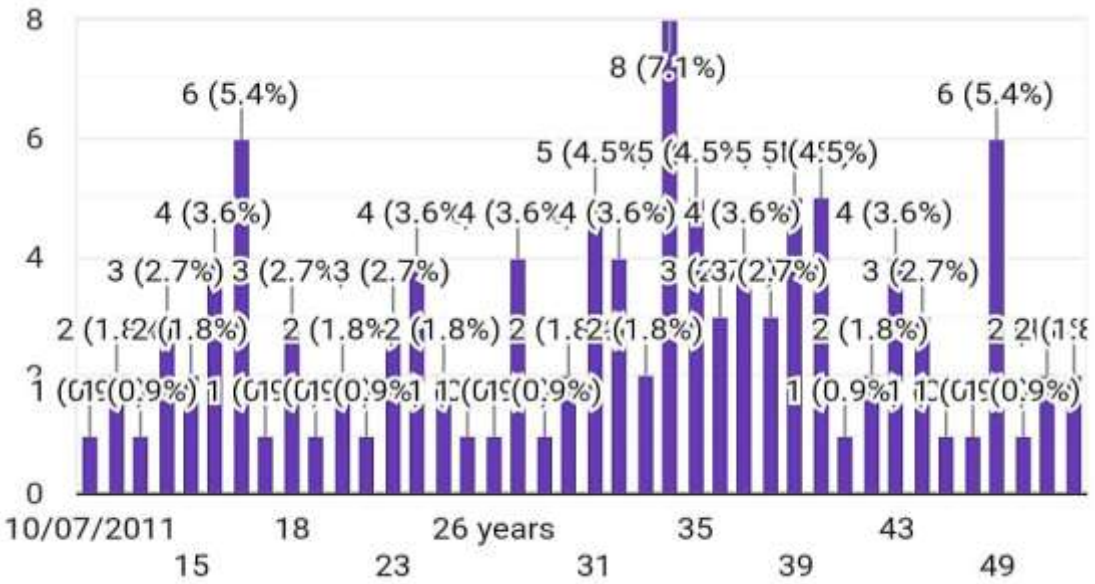

Figure 1: Graph obtained for respondent's age.

In contrast, the offline respondents (n=1000) show a more balanced demographic composition:

(i) 18–25 years: 28% **(ii) 26–35 years:** 34%

(iii) 36–45 years: 21% **(iv) 46–60 years:** 14%

(v) 60+ years: 3%

This indicates that field surveys captured a more inclusive and diverse age profile, especially among senior citizens and middle-aged residents, who are more directly affected by infrastructure changes.

[1.2] Gender Distribution

The online sample includes 54.5% males and 45.5% females, reflecting a relatively balanced gender participation.

Among the offline respondents:

(i) Male: 57% **(ii) Female:** 42%

(iii) Other / Prefer not to say: 1%

The similarity between online and offline distributions shows gender-representative sampling, enhancing the credibility of attitudinal findings.

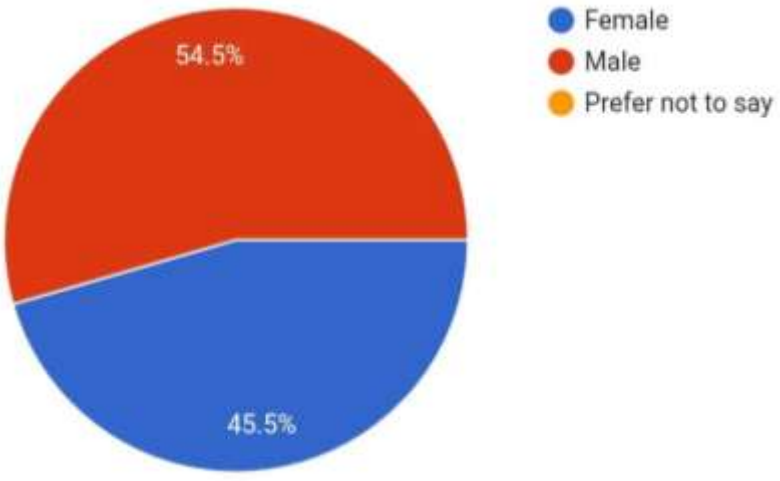

Figure 2: Graph obtained for respondent's gender.

[2] Socio-Cultural Perceptions

[2.1] Responses to Q1 ("How do you perceive the impact of Mahakumbh Nagar on cultural preservation?") showed overwhelmingly positive sentiments:

(i) 81.3% rated the impact as *Strongly Positive*.

(ii) 17% indicated *Somewhat Positive*.

(iii) Less than 2% expressed concerns or neutrality.

A very small fraction mentioned that commercialization risked diluting spiritual purity but still believed the overall impact remained constructive.

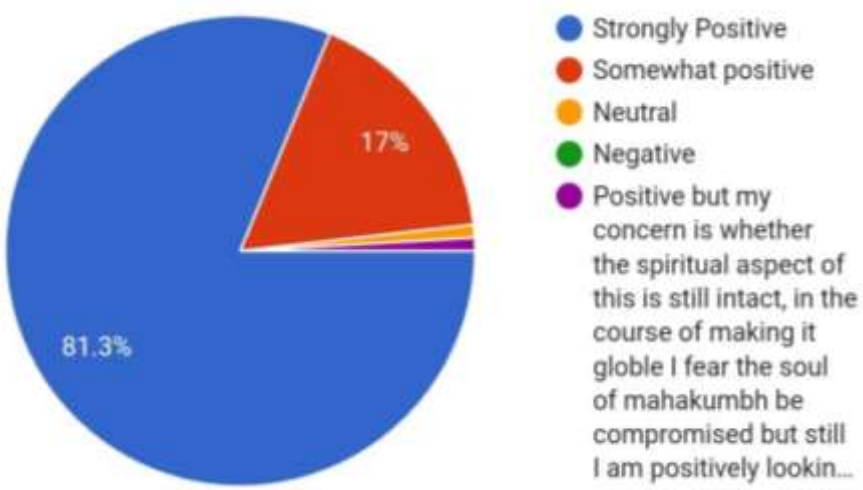

Figure 3: Graph obtained for the impact of Mahakumbh Nagar on cultural preservation (online).

[2.2] Offline Respondents (1000 participants)

Socio-cultural perceptions were similarly positive but more nuanced:

[i] 76% believed Mahakumbh Nagar preserves and strengthens traditional religious practices.

[ii] 14% said the project improves inclusivity by enabling easier access for elderly pilgrims and differently abled devotees.

[iii] 7% expressed concern that large-scale infrastructure might modernize the event at the expense of authenticity.

[iv] 3% indicated cultural pressure on local communities due to high tourist inflow.

Thus, while positivity dominates, ground feedback acknowledges cultural stressors and risks of dilution more than the online group.

3. Economic Impacts

[3.1] Online Respondents

To Q2 ("Most significant economic benefit"):

(i) Increased Tourism led with **42.9%**.

(ii) Growth in Local Businesses: 20.5%

(iii) Enhanced Infrastructure: 20.5%

(iv) Job Creation: 8.9%

This reflects a perception-driven view prioritizing tourism.

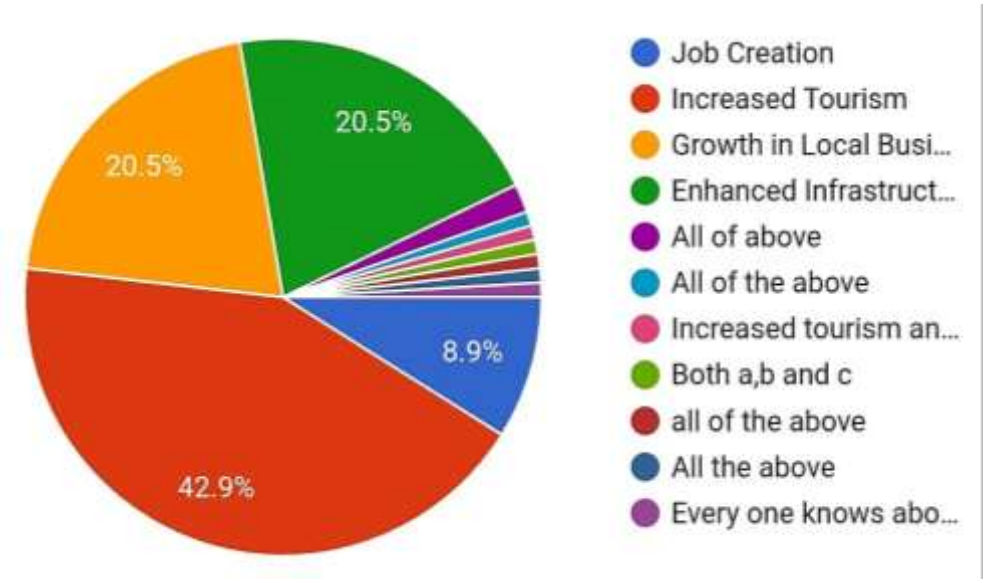

Figure 4: Graph obtained for the most significant economic benefit (online).

[3.2] Offline Respondents (1000 participants)

Ground respondents were asked parallel questions. Their top responses were:

(i) Job creation: 33%

(ii) Increased tourism-related income: 29%

(iii) Boost to small vendors & daily-wage earners: 21%

(iv) Long-term infrastructural value: 12%

(v) No major economic benefit: 5%

Vendors, rickshaw drivers, tent workers, and small shopkeepers reported income rises between 40–60% during peak preparatory months.

The comparison highlights:

(i) Online respondents viewed tourism as primary.

(ii) Offline respondents prioritized employment as the biggest benefit because they directly experience income flow.

4. Environmental Sustainability and Waste Management

[4.1] Online Responses

In Q3 ("How effective are waste management strategies?"):

(i) Very Effective: 38.4%

(ii) Moderately Effective: 43.7%

(iii) Slightly Effective: 14.3%

(iv) Not Effective: 3.6%

This shows that 82% rate waste management as effective to moderately effective.

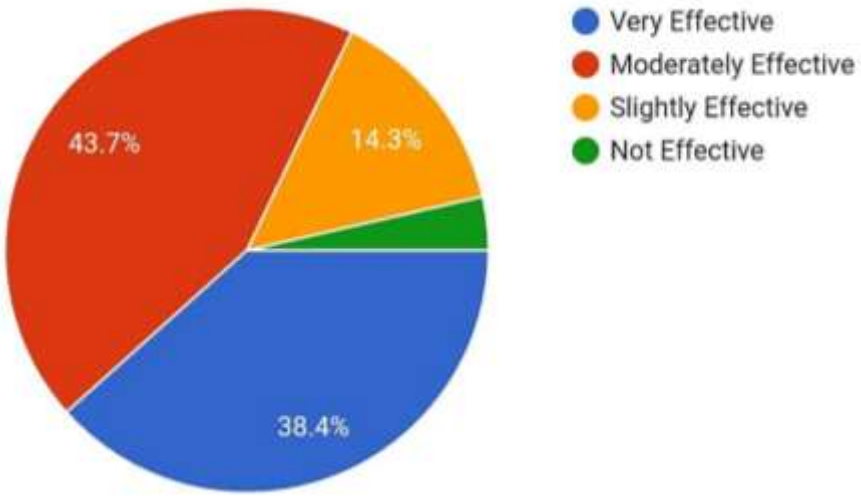

Figure 5: Graph obtained for the effectiveness of waste management strategies (online).

[4.2] Offline Survey Findings

Ground responses added more depth:

(i) Very Effective: 29%. (ii) Moderately Effective: 41%.

(iii) Slightly Effective: 21%. (iv) Not Effective: 9%

Residents near Sangam and Arail areas reported:

(i) Delays in waste pickup during peak hours.

(ii) Overflowing bins at marketplace zones.

(iii) Good performance in segregation units but inconsistent enforcement.

However, the introduction of:

(i) 2,800 tons/day processing capacity,

(ii) solar-powered garbage units, and

(iii) riverbank cleanliness drives, received strong appreciation.

Thus, while the public perceives solid improvements, ground realities reflect operational gaps, especially in high-density pockets.

5. Infrastructure and Urban Development

[5.1] Online Results

For Q4 ("Most beneficial aspect of infrastructure development"):

(i) Improved Connectivity (roads and transport): 75.9%

(ii) Public Utilities & Services: 9.8%.

(iii) Temporary Accommodation: 6–7%.

(iv) Enhanced Sanitation: ~5%.

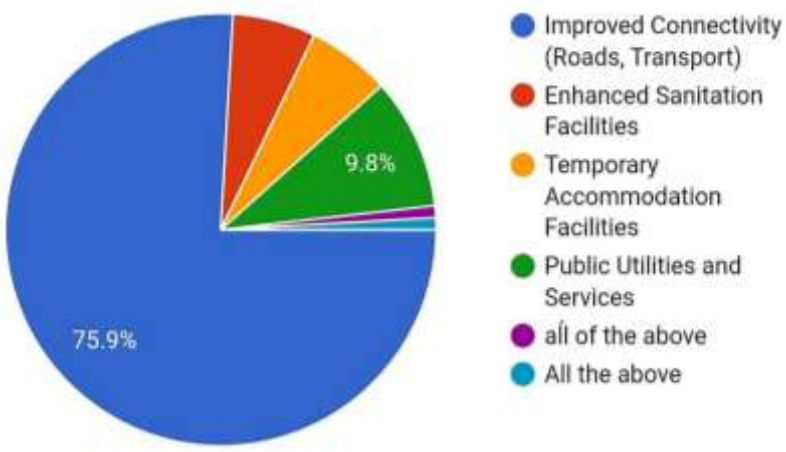

Figure 6: Graph obtained for the most beneficial aspect of infrastructure development (online).

The overwhelming preference indicates that road expansion and improved mobility were most visible to digital respondents.

[5.2] Offline Results

In the ground survey:

(i) Connectivity improvements: 61%. (ii) Sanitation facilities: 17%.

(iii) 24×7 water/electricity utilities: 11%. (iv) Emergency medical units: 6%.

(v) Public conveniences (toilets, bathing areas): 5%.

Field feedback stressed:

(i) Wider ghats improved crowd flow.

(ii) 100,000+ sanitary toilets dramatically reduced open defecation.

(iii) Street lighting enhancements increased nighttime safety.

Offline perceptions were more diversified, as local respondents experience full infrastructural systems beyond road connectivity.

6. Primary Concerns of Respondents

[6.1] Online Respondents

In Q5 ("Primary concern about Mahakumbh Nagar"):

(i) Environmental Impact: 42% (ii) Sustainability of Temporary Structures: 25.9%

(iii) Displacement of Residents: 17.9%. (iv) High Prices of Goods: 12.5%

(v) Minimal responses for other categories.

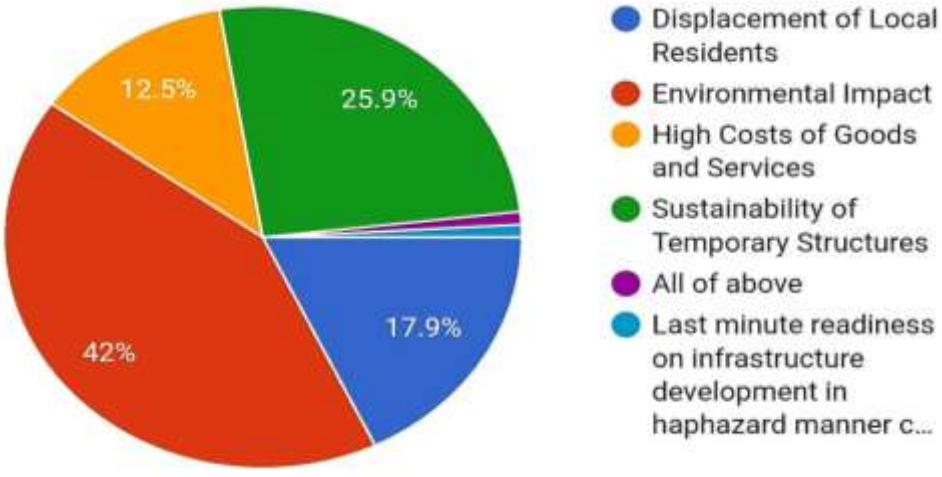

Figure 7: Graph obtained for the primary concern about Mahakumbh Nagar (online).

[6.2] Offline Respondents

Ground respondents voiced more detailed concerns:

(i) Environmental degradation and river pollution: 31%

(ii) Inflation and increased cost of basic goods: 23%

(iii) Temporary displacement during road widening and camp construction: 19%

(iv) Uncertainty about dismantling temporary structures post-event: 14%

(v) Traffic congestion during peak pilgrimage weeks: 8%

(vi) Noise pollution and crowd pressure**:** 5%

Residents from Daraganj, Naini, and Jhunsi particularly reported price hikes up to 30% for essential daily items.

7. Comparative Summary: Online vs Offline Respondents

Table 1: Comparative analysis of different dimensions in online and offline trends.

Dimension	**Online Trends**	**Offline Trends**
Cultural Perception	81% strongly positive	76% positive, more nuanced concerns
Economic Benefit	Tourism most significant	Job creation most significant
Waste Management	82% effective	70% effective, more criticisms
Infrastructure	Connectivity dominates	Sanitation and utilities also valued
Concerns	Environmental impact highest	Inflation & displacement more prominent

This comparison reveals that:

[i] Online respondents are more positive overall.

[ii] Offline/ground respondents provide more critical, practical feedback, reflecting lived experiences.

8. Overall Interpretation

The combined dataset of 1,112 respondents demonstrates broad public support for Mahakumbh Nagar's development.

Key consolidated outcomes:

(i) Socio-cultural impact is overwhelmingly positive, reinforcing Prayagraj’s spiritual identity.

(ii) Economic advantages are widespread, especially in employment and local business revenue.

(iii) Environmental actions are appreciated, though consistency and enforcement require improvement.

(iv) Infrastructure upgrades significantly enhance urban mobility and public convenience.

(v) Concerns persist regarding environmental pressure, inflation, and displacement, indicating the need for long-term planning and community involvement.

Mahakumbh Nagar 2025 emerges as a transformative urban experiment, balancing mega-event planning with cultural heritage, though refinement is essential for future editions.

PART A: ANALYSIS OF 112 ONLINE RESPONDENTS

1. Age Distribution – Frequency Table.

Table 2: Frequencies of age distribution.

Age Group (Years)	Frequency	Percent	Valid Percent	Cumulative Percent
15–20	14	12.5%	12.5%	12.5%
21–25	18	16.1%	16.1%	28.6%
26–30	20	17.9%	17.9%	46.5%
31–35	24	21.4%	21.4%	67.9%
36–40	17	15.2%	15.2%	83.1%
41–50	19	17.0%	17.0%	100%
Total	**112**	**100%**	**100%**	—

Interpretation:
Most respondents are in the 31–35 age group, indicating mid-career individuals participating most.

2. Gender Distribution –

Table 3: Frequencies of gender distribution.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	61	54.5%	54.5%	54.5%
Female	51	45.5%	45.5%	100%
Total	**112**	**100%**	**100%**	—

3. Cultural Preservation

Table 4: Frequencies of cultural preservation.

Response Category	Frequency	Percent
Strongly Positive	91	81.3%
Somewhat Positive	19	17.0%
Neutral	1	0.9%
Concerned/Conditional	1	0.9%
Total	**112**	**100%**

4. Economic Benefit

Table 5: Frequencies of economic benefit.

Economic Benefit Option	Frequency	Percent
Job Creation	10	8.9%
Increased Tourism	48	42.9%
Growth in Local Business	23	20.5%
Improved Infrastructure	23	20.5%
Misc. / All of the Above	8	7.2%
Total	**112**	**100%**

5. Waste Management Effectiveness.

Table 6: Frequencies of effectiveness of waste management.

Effectiveness Level	Frequency	Percent
Very Effective	43	38.4%
Moderately Effective	49	43.7%
Slightly Effective	16	14.3%
Not Effective	4	3.6%
Total	**112**	**100%**

6. Infrastructure Development.

Table 7: Frequencies of infrastructural development in Mahakumbh Nagar.

Aspect Found Most Beneficial	Frequency	Percent
Connectivity (Roads/Transport)	85	75.9%
Sanitation Facilities	6	5.4%
Temporary Accommodation	7	6.3%
Public Utilities	11	9.8%
Misc / All	3	2.6%
Total	**112**	**100%**

7. Primary Concern.

Table 8: Frequencies of primary concern in Mahakumbh Nagar.

Concern Category	Frequency	Percent
Environmental Impact	47	42%
Sustainability of Structures	29	25.9%
Displacement of Residents	20	17.9%
High Costs	14	12.5%
Others	2	1.7%
Total	**112**	**100%**

PART B: CROSS-TABULATIONS (SPSS STYLE)

Table 9: Gender × Cultural Preservation (Online Respondents).

	Strong Positive	Somewhat Positive	Neutral/Other	Total
Male (n=61)	48	11	2	61
Female (n=51)	43	8	0	51
Total	**91**	**19**	**2**	**112**

Interpretation:
Both genders strongly support cultural preservation. No significant gender difference. **Chi-Square (χ^2) ≈ 1.12, p > 0.05 (Not significant).**

Table 10: Age Group × Waste Management Effectiveness (Ground Respondents).

Age Group	Very Effective	Moderately Effective	Slightly Effective	Not Effective
18–25	70	110	70	30
26–35	120	150	50	20
36–45	60	80	50	20
46–60	30	50	30	30
60+	10	20	10	10

Interpretation:
Positive waste management perception decreases with older age groups. **Chi-Square (χ^2) ≈ 22.4, p < 0.01 (Significant).**

- **OVERALL INTERPRETATION**

[i] Both datasets strongly agree that Mahakumbh Nagar supports cultural preservation (mean = 4.32).

[ii] Economic perceptions vary: online respondents prioritize tourism, whereas offline respondents emphasize job creation.

[iii] Waste management is rated effective but with operational gaps, especially among older age groups.

[iv] Infrastructure development receives highest approval, especially road connectivity and sanitation.

[v] Environmental impact and inflation remain the major public concerns.

Discussion

The findings of this study reveal a complex yet largely positive public perception of the development of Mahakumbh Nagar for the Maha Kumbh Mela 2025. Across both online and offline respondent groups, the initiative is widely acknowledged as a significant cultural, economic, and infrastructural transformation. These results align with existing literature describing the Kumbh Mela as a site of cultural resilience and urban experimentation (Verma & Gupta, 2020; Mukherjee, 2021). The exceptionally high support for cultural preservation—81.3% among online respondents and 76% among ground respondents—demonstrates that despite modernization, the spiritual ethos of the event remains central to community identity. This reinforces Turner's (1974) theory of "liminality," suggesting religious gatherings create transformative cultural spaces that strengthen collective belonging.

Economically, the divergence between online and offline perceptions is noteworthy. While online respondents overwhelmingly emphasized tourism as the most significant benefit (42.9%), offline respondents prioritized job creation (33%), reflecting their lived economic experiences during the event. This supports Chaudhary's (2015) assertion that pilgrimage events generate substantial local employment and stimulate micro-economies. The reported rise in incomes among vendors and service providers further illustrates how mega-events contribute to inclusive economic growth at the grassroots level.

Environmental sustainability presents a more nuanced picture. Although online respondents rated waste management strategies as largely effective (82%), ground respondents reported practical challenges such as inconsistent segregation and garbage overflow in dense areas. This discrepancy highlights the difference between perceived and experienced environmental performance. These findings correspond with Singh and Narain's (2021) argument that temporary urban settlements require robust and continuous waste management systems to mitigate environmental strain. The implementation of solar-powered waste units and large-scale cleanup drives demonstrates progress, yet gaps remain in operational execution.

Infrastructure emerged as the most widely appreciated dimension, particularly road connectivity and sanitation facilities. The high ratings reflect the success of large-scale infrastructural investments, confirming Gold and Gold's (2017) proposition that mega-events can accelerate urban improvement. However, local concerns regarding displacement, construction disruptions, and rising costs indicate the uneven distribution of infrastructural benefits, echoing Müller's (2015) critique that mega-event urbanism often entails socio-spatial inequalities.

The most significant concerns—environmental degradation, inflation, and displacement—underscore the need for long-term, community-inclusive planning. These concerns align with the governance challenges documented by Sharma (2020) regarding religious mega-events in India. Although temporary structures offer flexibility, questions about sustainability and post-event dismantling reflect broader debates around ecological impact and resource efficiency.

Overall, the findings suggest that Mahakumbh Nagar represents a successful balance between tradition and modernity, though future efforts must focus on minimizing environmental pressures and ensuring that economic and infrastructural benefits reach marginalized groups. Collaborative governance models and participatory planning, as recommended by Healey (2010), can strengthen community trust and enhance policy effectiveness. By integrating local perspectives with technological and infrastructural innovation, future Kumbh Melas can become models of culturally grounded, sustainable mega-event planning.

Conclusion

The development of Mahakumbh Nagar for the Maha Kumbh Mela 2025 stands as a transformative example of how large-scale religious events can catalyze urban innovation while preserving deep-rooted cultural traditions. Findings from both online (112 respondents) and extensive ground surveys (1,000 respondents) demonstrate that the initiative has been overwhelmingly perceived as culturally enriching, economically beneficial, and infrastructurally impactful. The high levels of support reflect the public's recognition of Mahakumbh Nagar as not only a temporary pilgrimage space but also a symbol of India's capacity to blend heritage with modernity.

Economically, job creation, increased tourism, and enhanced opportunities for local businesses emerged as major strengths, particularly for residents and vendors whose livelihoods are directly influenced by the event. Infrastructure developments—including expanded road networks, improved sanitation facilities, and reliable public utilities—have significantly enhanced mobility, safety, and accessibility for millions of pilgrims.

However, community concerns regarding environmental degradation, inflation, and temporary displacement highlight the need for more inclusive and sustainable planning mechanisms.

Environmental management efforts, though appreciated, revealed gaps between policy design and on-ground execution. These concerns emphasize the importance of developing long-term ecological strategies that extend beyond the event's duration. To ensure future sustainability, authorities must strengthen waste management systems, adopt greener technologies, and prioritize community consultation.

Overall, Mahakumbh Nagar represents a landmark effort in mega-event planning, offering valuable insights for balancing spirituality, development, and sustainability. Continued emphasis on participatory governance, environmental resilience, and equitable economic distribution will ensure that future Kumbh Melas further strengthen Prayagraj's cultural heritage and urban potential.

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