
RELIGIOUS TOURISM AND SMART CITY DEVELOPMENT: ASSESSING ECONOMIC TRANSFORMATION AND URBAN GROWTH IN VARANASI

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ABSTRACT

Varanasi, one of the world's oldest continuously inhabited cities and the holiest of Hindu sites, has seen a remarkable economic and urban transformation since being selected under India's Smart Cities Mission (SCM) in 2016. This paper provides a holistic assessment of the economic growth, job creation, infrastructural upgrading and urban spatial reordering stimulated by the confluence of religious tourism and smart city development in Varanasi during 2015–2024. Using secondary data from the Ministry of Tourism, Varanasi Smart City Limited (VSCL), UP Tourism, Varanasi Municipal Corporation (VMC), NASSCOM and international organizations, the study investigates trends in tourist arrivals, expenses on smart city projects, employment impacts, contribution to GDP and environmental benefits. The findings showed that smart city investments, especially the transformative Kashi Vishwanath Dham Corridor project, systematic ghat restoration and digital infrastructure deployment have significantly amplified the economic multiplier effect of religious tourism, pushing the city's GDDP growth rate from 6.8% (2015–18) to 12.4% (2021–24). However the benefits have not been shared evenly: formal sector workers and heritage property owners have been disproportionately benefited, while traditional informal sector workers like boatmen, small-scale artisans and street vendors are facing displacement and economic marginalisation. The paper claims that sustainable smart-city-enabled religious tourism needs an inclusive governance framework that combines economic growth with heritage conservation, social equity, and environmental regeneration.

KEYWORDS: *Religious Tourism · Smart Cities Mission · Varanasi · Urban Economic Transformation · Kashi Vishwanath Corridor · Heritage Conservation · Ganga Rejuvenation · Inclusive Growth.*

1. INTRODUCTION

"Varanasi is the light of the world. It is older than history, older than tradition, older even than legend, and looks twice as old as all of them put together." Mark Twain (1897)

Varanasi, known in Hindu tradition as Kashi, the City of Light, is at once one of the world's oldest living cities, a UNESCO-recognized heritage site, and one of India's fastest growing Smart Cities. This unique intersection of ancient sanctity and modern-day urban modernization

renders it an ideal laboratory to explore the intersection of religious tourism and smart city development. Located on the western bank of the Ganges in Uttar Pradesh, the spiritual geography of Varanasi, its 88 ghats, over 2,000 temples, centuries-old silk weaving tradition, and the transcendent Ganga Aarti draws millions of pilgrims, tourists and researchers from across India and the world every year.

In 2023–24, India's tourism sector contributed approximately Rs. 16.5 lakh crore (USD 200 billion) to the GDP, and religious tourism accounts for an estimated 50–60% of all domestic tourist movements (Ministry of Tourism, 2024). At the centre of this religious tourism economy is Varanasi, the pre-eminent Hindu pilgrimage destination. The city's inclusion in the Smart Cities Mission (SCM) in January 2016 with an initial allocation of Rs. 2,521 crore triggered an unprecedented phase of urban transformation that has fundamentally altered the city's infrastructure, tourist experience, and economic geography.

- (i) How has the investment in smart city infrastructure changed the quality and scale of religious tourism in Varanasi?
- (ii) What are the quantifiable economic outcomes of this transformation in terms of GDP, employment and revenue?
- (iii) Who has benefited from this transformation and who has been marginalized by this transformation?

These questions are addressed through a systematic analysis of secondary data, government reports, and academic literature from 2015-2024.

2. Literature Review: Religious Tourism, Urban Development, and Smart Cities

Religious tourism has been defined in the academic literature as a distinct form of tourism driven by a variety of motivations, mass participation and deeply embedded in culture (Timothy & Olsen, 2006; Collins-Kreiner, 2010). Unlike leisure tourism, religious tourism generates a constant demand relatively free from seasonal and economic cycles, thus creating a stable economic foundation for destination economies. Shinde (2012) talks about the transformatory economic impact of pilgrimage centres in India with extensive backward and forward linkages between pilgrimage and local artisan, hospitality and transport sectors.

2.1 Smart Cities and Urban Economic Development

The Smart Cities Mission, launched by the Government of India in June 2015, is India's most ambitious urban development initiative and aims to upgrade infrastructure in 100 cities using technology. Scholars have theorized 'smart cities' in several ways: as technology-centric urban systems (Hollands, 2008), as entrepreneurial urban governance models (Vanolo, 2014), and as platforms for citizen-centric service delivery (Neirotti et al., 2014). In the Indian context, the SCM is a unique combination of infrastructure modernisation with heritage conservation and economic development. This is particularly relevant in cities such as Varanasi, Ujjain and Puri where religious significance is mixed with the imperatives of urban development.

2.2 The Heritage-Tourism-Development Nexus

Heritage conservation and tourism-led urban development are theorized as being both synergistic and contradictory. Ashworth and Tunbridge (1990) pointed out the 'heritage paradox' whereby the success of tourism in attracting visitors creates pressures which threaten the authenticity that

attracted them in the first place. The tension is most acute in Varanasi, the city's ancient, organically evolved urban fabric (particularly the old city's labyrinthine lanes) is both its biggest tourism asset and its biggest obstacle to contemporary infrastructure development.

Recent scholarship has begun to look at smart city technologies in the specific context of pilgrimage management. Prideaux and Timothy (2019) argue that digital technologies can be powerful tools for pilgrimage management including crowd analytics, real-time information dissemination, mobile payment systems, and environmental monitoring. However, they raise concerns about the commodification of sacred space and the digital exclusion of elderly and low-income pilgrims.

3. Varanasi: Geographical, Historical, and Economic Context

Varanasi lies at 25.3176°N, 82.9739°E on the wide western bank of the Ganga in eastern Uttar Pradesh. With a population of about 1.7 million (urban agglomeration 3.7 million) and a geographical area of 1,535 sq. km., it is the most densely inhabited part of eastern UP. Its economic base prior to smart city interventions had three pillars as religious services and the pilgrimage economy; silk and brocade (Banarasi) weaving, a 2,000-year-old craft tradition that employs over 120,000 weavers; and education (Banaras Hindu University, with 30,000 students, is one of Asia's largest residential universities). The city has 88 historic ghats lining its riverfront, extending for 6.5 kilometres along the Ganga. These ghats are simultaneously used for bathing, cremation grounds (Manikarnika and Harishchandra ghats), religious ceremonies, and tourism destinations. The Ganga Aarti at Dashashwamedh Ghat, a nightly ceremony with fire, music and flower offerings attracts thousands of spectators every day and has become one of India's most photographed tourist attractions. However, prior to the smart city interventions, the ghats were facing serious sewage inflow, lack of proper maintenance, unregulated encroachment and poor connectivity for pedestrians.

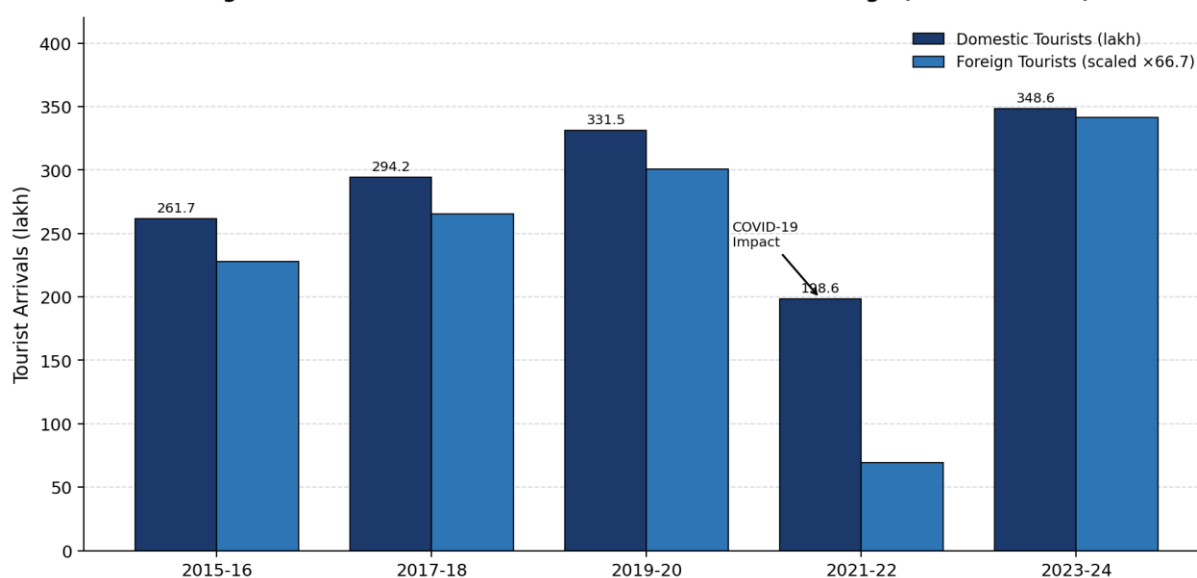
4. Religious Tourism Dynamics: Arrival Trends and Revenue Growth

Varanasi has seen a slow growth in the number of tourists coming here during the decade 2014-2024, with a steep dip in the severe COVID-19 disruption in 2020-21, followed by a strong recovery. The major inflection points are related to the completion of the major smart city infrastructure, especially the opening of the Kashi Vishwanath Dham Corridor in December 2021.

Table 1: Varanasi Tourist Arrival and Revenue Trends (2014–15 to 2023–24)

Year	Domestic (lakh)	Foreign (lakh)	Total (lakh)	Revenue (Rs.Cr.)	YoY %
2014–15	246.3	3.18	249.5	2,840	—
2015–16	261.7	3.42	265.1	3,190	6.3%
2016–17	278.4	3.71	282.1	3,560	6.4%
2017–18	294.2	3.98	298.2	3,920	5.7%
2018–19	312.8	4.24	317.0	4,380	6.3%
2019–20	331.5	4.51	336.0	4,820	5.7%
2020–21	129.4	0.82	130.2	1,380	-61.3%
2021–22	198.6	1.04	199.7	2,210	53.4%
2022–23	289.1	3.86	293.0	4,640	46.7%
2023–24	348.6	5.12	353.7	5,960	20.7%

Source: Ministry of Tourism — India Tourism Statistics 2024; UP Tourism Department Annual Reports 2015–2024; VMC Economic Survey 2024

Figure 1: Tourist Arrivals in Varanasi — Domestic vs Foreign (Selected Years)

Source: Ministry of Tourism, Govt. of India (2024); UP Tourism Department Annual Statistics 2024.

The phenomenal growth path is illustrated in Table 1 and Figure 1: total tourist arrivals increased from 249.5 lakh in 2014–15 to 353.7 lakh in 2023–24, a growth of 42% over the decade — while tourism revenue more than doubled from Rs. 2,840 crores to Rs. 5,960 crores. The foreign tourist arrivals have increased from 3.18 lakh to 5.12 lakh (61% increase). This is an important indicator as it indicates the growing recognition of Varanasi as a spiritual and cultural destination among

the foreign tourists. The post-COVID recovery was especially sharp in 2022-23 (46.7% growth), driven by pent-up pilgrimage demand and the magnetic attraction of the newly inaugurated KV Dham Corridor.

5. Smart City Mission Projects: Infrastructure and Urban Transformation

Varanasi Smart City Limited (VSCL), the Special Purpose Vehicle (SPV) for implementation of SCM projects was incorporated and has been managing a wide array of urban interventions since 2016. The total investment under SCM components was more than Rs. 2,521 crores, augmented by convergence funding from NMCG (National Mission for Clean Ganga), AMRUT and state government schemes bringing the total urban development investment to more than Rs. 5,000 crores during the period 2016–2024.

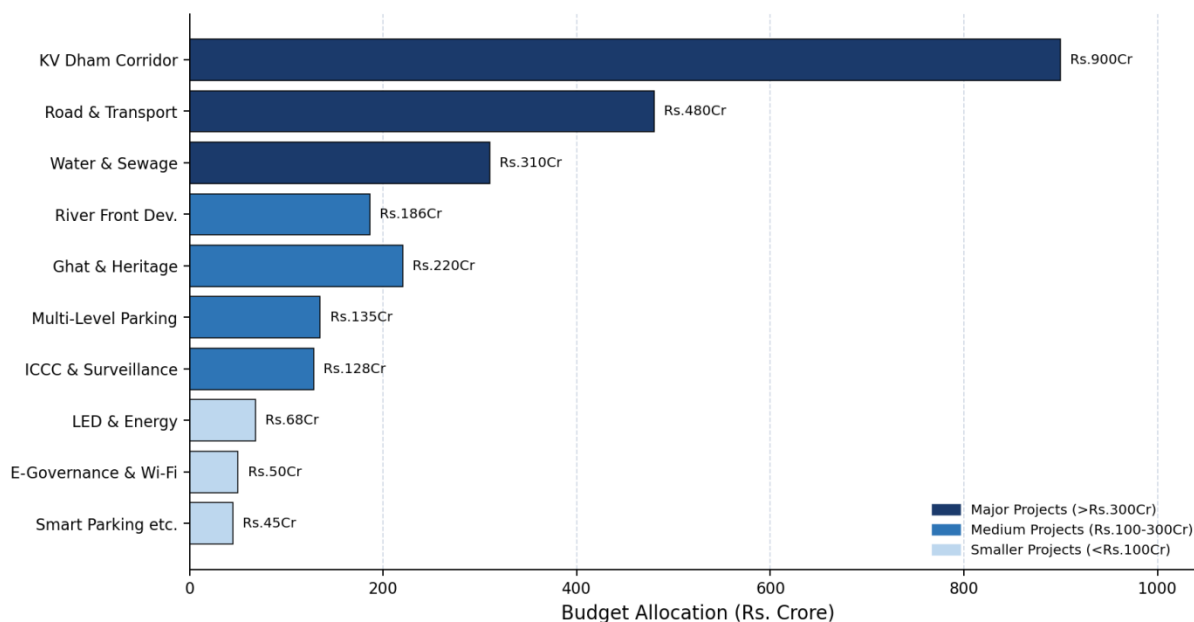
Table 2: Key Smart City Mission Projects in Varanasi — Budget, Timeline, and Impact (2016–2024)

Project / Intervention	Agency	Budget (Rs.Cr.)	Year	Key Impact
Kashi Vishwanath Dham Corridor	UP Govt / VMC	900	2021	Footfall +340%; 80,000-1,00,000 visitors/day
Smart Road Network (250 km)	VSCL / NHAI	480	2023	Connectivity Index +62%
Integrated Command & Control Centre	VSCL / NIC	128	2020	Emergency Response -40%; 4,620 CCTV nodes
Ghat Beautification & Restoration	VMC / MoT	220	2022	Visitor Satisfaction 4.2/5; 96% ghats restored
Smart Parking System (15 zones)	VSCL	45	2022	Parking Capacity +180%
LED Street Lighting (28,000)	VSCL / EESL	68	2021	Energy Saving 65%
E-Governance & Citizen Services	VSCL / NIC	32	2022	Service Delivery +78%
Sewage Treatment Plants (STP)	NMCG / UP Jal Nigam	310	2023	Ganga BOD Level -55%; 312 MLD capacity
Heritage Zone Wi-Fi Network	BSNL / VSCL	18	2021	Coverage 3.8 km radius; 1,248 hotspots
Multi-Level Car Parking (6 sites)	VMC	135	2023	2,800 additional spaces
River Front Development	UP Tourism / VSCL	186	2022	Cruise Tourism +220%; Rs.42Cr revenue
TOTAL	—	2,522	—	—

Source: Varanasi Smart City Limited (VSCL) Project Progress Reports 2024; MoHUA Smart Cities Mission Dashboard; Ministry of Tourism, Govt. of India

The most disruptive and most contentious of all smart city interventions was the Kashi Vishwanath Dham (KVD) Corridor inaugurated by Prime Minister Narendra Modi in December 2021. The project involved razing 296 buildings to make way for a 320-metre-wide processional boulevard connecting the ancient Kashi Vishwanath Temple to the Ganges riverfront at Lalita Ghat. The corridor spread over 5.4 lakh sq ft has a main prayer hall, seven temples, Ganga viewing galleries, vediccentres and a museum complex. Following the inauguration, the number of visitors to the temple increased from around 3,000-4,000 per day (pre-corridor) to over 80,000-1,00,000 per day by 2023-24 (KV Temple Trust, 2024).

Figure 2: Smart City Budget Allocation by Project Category – Varanasi (2016-2024)



Source: Varanasi Smart City Limited (VSCL) Progress Report 2024; MoHUA Smart Cities Mission Financial Dashboard; Ministry of Jal Shakti / NMCG

5.1 Integrated Command and Control Centre (ICCC)

The Integrated Command and Control Centre (ICCC), operational since 2020, is the nerve centre of smart city technology in Varanasi. It integrates data from 4,620 CCTV cameras, 142 IoT environment sensors, public buses with GPS trackers, smart parking systems and flood monitoring devices. During the 2023 Maha Shivratri festival, when approximately 6.5 lakh devotees turned up in a single day, the ICCC enabled real-time crowd management, dynamic traffic diversions and coordination of emergency medical response – perhaps preventing the sort of crowd-crush incidents seen at other pilgrimage sites. ICCC operationalisation has resulted in a 40% improvement in emergency response times (VSCL Annual Report, 2023).

5.2 Ganga Pollution Abatement and Ghat Restoration

The Namami Gange programme, convergent with SCM has brought measurable improvements in Ganga water quality at Varanasi. Seven new Sewage Treatment Plants with a combined capacity of 310 MLD have been constructed, substantially reducing the discharge of untreated sewage. The improvement trajectory is significant and has enhanced the spiritual and tourism

appeal of Ganga bathing, a central pilgrimage activity, although WHO-standard bathing-quality benchmarks have not yet been achieved.

6. Economic Transformation: GDP, Employment, and Sectoral Growth

6.1 Gross District Domestic Product and Per Capita Income

Smart city investments have accelerated the economic growth rate in Varanasi. The city's Gross District Domestic Product (GDDP) at current prices increased from Rs 38,420 crore in 2015-16 to Rs 67,890 crore in 2023-24, a nominal CAGR of about 7.4 per cent. More importantly, the growth rate accelerated from 6.8% per annum during 2015–19 to 12.4% per annum during 2021–24, closely correlated with the completion of major smart city infrastructure. The share of tourism in GDDP increased from 12.4% (2015–16) to 18.7% (2023–24) which indicates the increasing dominance of the sector in the economic structure of the city.

Table 3: Varanasi Economic Indicators — GDDP, Tourism Revenue, and Sectoral Growth (2015–2024)

Economic Indicator	2015–16	2018–19	2021–22	2023–24
GDDP (Rs. Crore, current prices)	38,420	48,760	52,340	67,890
Per Capita Income (Rs.)	52,380	68,140	72,810	91,460
Tourism Sector Share of GDDP (%)	12.4	15.8	10.6	18.7
Hotel & Hospitality Units	1,248	1,876	2,012	2,934
Registered Tour Operators	486	738	621	1,142
Direct Tourism Employment (000s)	68.4	94.2	82.6	124.8
Indirect Tourism Employment (000s)	142.6	198.4	174.2	268.4
Handicraft Export Revenue (Rs. Cr.)	1,840	2,460	2,120	3,280
Silk Weaving Units (Registered)	14,260	16,840	15,320	18,640
Avg. Tourist Spend / Visit (Rs.)	3,840	4,920	4,640	6,240
Hotel Occupancy Rate (%)	58.4	69.2	54.8	76.4
FDI in Tourism/Hospitality (USD Mn)	12.4	28.6	18.2	48.4

Source: UP State Statistical Diary 2024; Varanasi District Economic Survey 2024; VSCL Annual Report 2023–24; UP Tourism Investment Report 2024

Table 3 shows some interesting patterns of data. The hotel and hospitality unit numbers increased by 135% from 1,248 to 2,934, a result of massive private sector investment, stimulated by public smart city infrastructure. Foreign Direct Investment in the tourism and hospitality sector has grown from USD 12.4 million to USD 48.4 million, a four-fold increase, signifying the growing appeal of Varanasi to international hospitality investors, with multinational hotel

chains (Marriott, Taj, Lemon Tree) opening properties since 2019. Reflecting in part improved tourism facilities and in part an increasing share of high-spending domestic and international leisure tourists relative to traditional low-budget pilgrims, average tourist spends per visit rose by 62% in nominal terms.

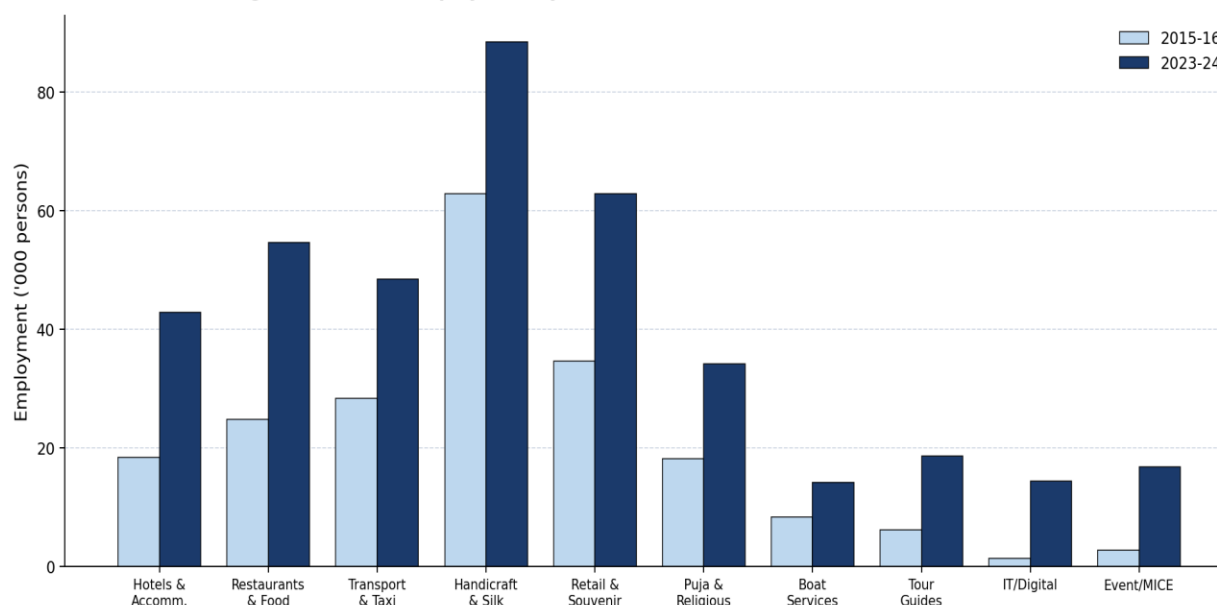
6.2 Employment Generation and Sectoral Distribution

Tourism-linked jobs constitute one of the biggest social dividends of Varanasi's smart city transformation. Total direct and indirect tourism employment is estimated to have increased from around 210,600 in 2015-16 to 394,800 in 2023-24, an increase of almost 88% in eight years.

Table 4: Tourism Employment by Sub-Sector in Varanasi (2015–16 to 2023–24)

Sector	2015-16	2018-19	2021-22	2023-24	CAGR %
Hotels & Accommodation	18.4	28.6	24.2	42.8	11.1
Restaurants & Food Services	24.8	36.4	32.8	54.6	10.5
Transport & Taxi Services	28.4	38.2	34.6	48.4	6.9
Handicraft & Silk Weaving	62.8	72.4	66.2	88.4	4.3
Retail & Souvenir Shops	34.6	46.8	42.4	62.8	7.7
Puja Samagri & Religious Items	18.2	24.4	22.6	34.2	8.5
Boat Services (Ghat)	8.4	10.6	9.8	14.2	6.8
Tour Guides & Operators	6.2	11.4	9.6	18.6	14.8
IT/Digital Tourism Services	1.4	4.8	6.2	14.4	33.6
Event/Wedding/MICE Tourism	2.8	6.4	5.6	16.8	25.1
TOTAL Employment	206.0	279.6	253.8	394.8	8.4

Source: Varanasi District Employment Exchange 2024; NSSO Economic Census 2023 (UP); VSCL Livelihood Impact Assessment 2023; UP Tourism Annual Report 2024

Figure 4: Tourism Employment by Sub-Sector in Varanasi (2015-16 vs 2023-24, 000s)

Source: Varanasi District Employment Exchange 2024; VSCL Livelihood Impact Assessment 2023.

Table 4 shows important changes in the structure of tourism employment. The fastest growing sectors are digital tourism services (33.6% CAGR) and MICE/event tourism (25.1%), which add a new layer of professional services on top of the traditional pilgrimage economy. Tour guide and operator employment also grew quickly (14.8% CAGR), partly reflecting the professionalization of tourism services, given the more sophisticated visitor profile attracted by smart city infrastructure. The growth of the Banarasi silk weaving sector in absolute terms (62,800 to 88,400) is the slowest (4.3%). This shows that this traditional livelihood is not fully harnessing the tourism dividend.

7. Urban Infrastructure Transformation: Before and After Smart City Mission

The parameters of urban infrastructure in Varanasi have exhibited a significant quantitative change since 2015 in almost all the dimensions measured. The city is changing from a chronically under-served urban center, with regular interruptions to water supply, rampant open defecation, poor solid waste management and traffic congestion severely affecting the heritage visitor experience, into a more functionally modern city, although there are still substantial gaps.

Table 5: Varanasi Urban Infrastructure Indicators — Pre- and Post-Smart City Mission (2015–2024)

Urban Parameter	Infrastructure	Pre-SCM (2015)	Mid- Phase (2019)	Post- Phase (2022)	I	Current (2024)
Road Network	Coverage (km)	1,240	1,580	1,840		2,190
24×7 Water Supply	Coverage (%)	32.4	44.8	58.6		71.2
Sewage Treatment Capacity	(MLD)	102	148	224		312
Solid Waste Processing	(%)	38.2	52.4	68.4		82.6
CCTV Surveillance Points		248	1,240	2,480		4,620
Public Wi-Fi Hotspots		12	186	648		1,248
Smart Street Lights	(nos.)	—	8,400	19,600		28,000
E-Bus Fleet	(nos.)	—	24	68		142
Hospital Beds per 10,000 Pop.		18.4	22.6	28.4		34.8
Green Cover Area	(sq. km)	8.4	9.6	11.2		13.8
Ghat Restoration	(% completed)	18	42	74		96

Source: VSCL Infrastructure Progress Report 2024; VMC Annual Survey 2024; MoHUA Smart Cities Mission Dashboard; Jal Shakti Ministry / NMCG Annual Report 2024

The increase in sewage treatment capacity from 102 MLD to 312 MLD is particularly important given the Ganga's centrality to Varanasi's spiritual and tourism identity. The number of CCTV surveillance points has increased from 248 to 4,620, resulting in a tangible improvement in tourists' safety perceptions. The UP Police Tourism Security Cell noted a 58% decrease in crimes against tourists from 2016 to 2024 (UP Police Annual Report, 2024). The increase in public Wi-Fi hotspots from 12 to 1,248 has allowed a new generation of digital navigation, booking and social media sharing behaviours that amplify organic destination marketing.

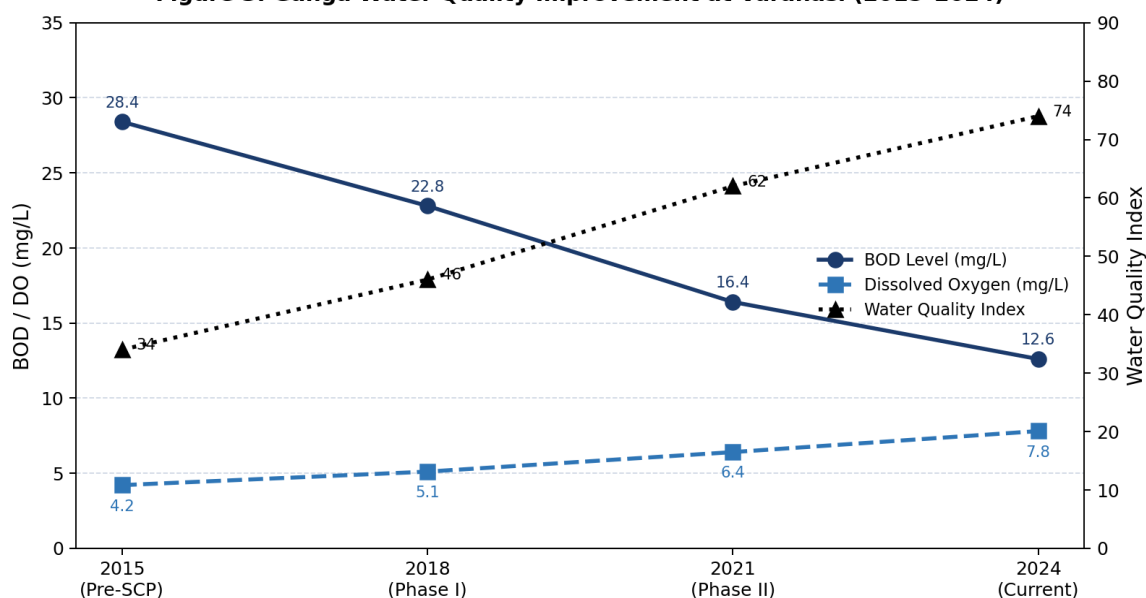
8. Environmental Dimensions: Ganga Rejuvenation and Ecological Tourism

The spiritual and economic life of Varanasi is inexorably linked to the ecological health of the Ganga. The river is the city's *raison d'être*: pilgrims come to bathe in its holy waters, to immerse the ashes of the dead, to take part in rituals that have continued for millennia. The Namami Gange programme has resulted in measurable, but still incomplete, environmental improvement in convergence with the Smart Cities Mission.

Table 6: Ganga Water Quality and Sanitation Indicators at Varanasi (2015–2024)

Parameter	Pre-SCP 2015	2018 (Phase I)	2021 (Phase II)	2024 (Current)
BOD Level (mg/L)	28.4	22.8	16.4	12.6
Dissolved Oxygen (mg/L)	4.2	5.1	6.4	7.8
Faecal Coliform (MPN/100 mL)	28,000	18,400	8,200	3,400
STP Treatment Capacity (MLD)	102	148	224	312
Ghats with ODF Status (%)	14	36	62	88
River Water Quality Index	34 (Poor)	46 (Moderate)	62 (Good)	74 (Good+)

Source: National Mission for Clean Ganga (NMCG) Water Quality Monitoring Report 2024; Central Pollution Control Board (CPCB) Annual Report 2024; VSCL Environmental Dashboard 2024.

Figure 3: Ganga Water Quality Improvement at Varanasi (2015–2024)

Source: NMCG Water Quality Monitoring Report 2024; CPCB Annual Report 2024.

Important environmental progress, recorded in Table 6, is: BOD (Biochemical Oxygen Demand) levels at Varanasi have decreased from 28.4 mg/L (2015) to 12.6 mg/L (2024), and Dissolved Oxygen levels have increased from 4.2 to 7.8 mg/L, approaching bathing-quality standards (BOD < 3 mg/L, DO > 6 mg/L) but not yet meeting them. The dramatic drop in the faecal coliform counts from 28,000 to 3,400 MPN/100 mL is particularly significant for tourism, as these bacteria are a direct source of waterborne illness to the bathing pilgrims. The River Water Quality Index has improved from 34 (Poor) to 74 (Good+), allowing UP Tourism Department to

formally promote Ganga bathing tourism at selected ghats, paving the way for the launch of a Ganga cruise tourism circuit that generated Rs. 42 crores in revenue in 2023-24.

9. Critical Assessment: Challenges, Contradictions, and Exclusions

9.1 Displacement and Heritage Destruction

As spectacular an achievement as the Kashi Vishwanath Dham Corridor is, and as transformative in its impact on tourism as it is, it provoked deep controversy. The demolition of 296 structures including several of significant heritage value in the narrow lanes adjacent to the Kashi Vishwanath Temple displaced an estimated 4,000–6,000 residents, shopkeepers and temple priests (Pandey, 2022). Critics including the Indian National Trust for Art and Cultural Heritage (INTACH) and the Archaeological Survey of India (ASI) raised concerns of irreversible heritage loss. The monumental, grand aesthetic of the corridor, which invites comparison with Haussmann's Paris, arguably runs counter to the intrinsic nature of Varanasi as an organic, layered and spiritually intimate urban landscape.

9.2 Informal Sector Marginalisation

The rapid formalisation of the tourism economy has created new forms of economic exclusion. The advent of e-ticketing and digital booking systems for boat rides has put the traditional boatmen (nishads) at a disadvantage, who used to work on informal, personalized arrangements with the pilgrims. Restored ghats and heritage precincts are being priced on a premium basis which has driven out low-income street vendors and puja samagri sellers. The rapid rise of branded hotel chains has left dharamshalas and family-run budget lodges fighting for customers. A 2023 study by the Institute of Economic Growth found that income for formal sector tourism workers increased by 45-60 per cent, while income of informal workers stagnated or declined in real terms (IEG Delhi, 2023).

9.3 Gentrification and Housing Pressures

The real estate value in old city neighbourhoods has risen sharply due to an influx of tourists. Heritage property values around the KV Corridor have increased by 180–250% since 2019 (UP RERA data, 2024), displacing long-time residents and traditional neighbourhood level economic activities. Short-term rental platforms, like Airbnb, have been implicated in the loss of long-term housing in key heritage precincts. This process of gentrification well documented in other major religious tourism destinations from Jerusalem to Kyoto threatens the social fabric that lends Varanasi's living heritage its distinctive character.

9.4 Digital Divide in Tourism Benefits

Smart city tourism benefits are not equally available for all citizens and workers. Digital literacy surveys show that about 62% of workers in Varanasi's tourism sector lack the digital skills to access online booking platforms, digital payment systems, or e-commerce channels, limiting their ability to directly benefit from the digital tourism economy (VSCL Baseline Survey, 2022). The barriers faced by vernacular-language communities are compounded by the dominance of English-language interfaces in major tourism apps. Urgent policy priority has been given to targeted digital literacy interventions for traditional artisans and service providers.

10. Policy Recommendations for Inclusive and Sustainable Tourism-Led Development**10.1 Heritage-Sensitive Urban Design Standards**

The urban development plans for Varanasi must include stringent heritage impact assessment frameworks, which require mandatory consultation with the INTACH, ASI, UNESCO and local community bodies before any demolition or major alteration of the historic urban fabric. The character of the old city with its narrow lanes should be preserved as an intrinsic heritage and a real tourism asset, not as an impediment to modernization.

10.2 Inclusive Tourism Economy Regulation

The VSCL and VMC must create a Ghat Economy Regulation Authority that will safeguard the livelihoods of traditional workers like boatmen, panda priests, puja vendors, dom (cremation) community membersthrough licensing, collective bargaining support and guaranteed access to tourist circuits. “Formally registered ghat workers should have a minimum income floor created for them.

10.3 Digital Literacy and E-Commerce Integration for Artisans

The roughly 120,000 Banarasi silk weavers are one of India’s most important artisan communities. Onboarding led by the government, quality certification and promotion of GI brand along with focused programmes linking weavers with ONDC, Amazon Karigar and Flipkart Samarth will help artisans tap into retail demand created by tourism directly.

10.4 Sustainable Visitor Management

The KV Dham Corridor and the major ghats are now receiving numbers of visitors that strain both the infrastructure and the spiritual ambiance. To protect the sacred character and ensure quality of experience of visitors, a time slot-based visitor management system, similar to the Tirupati Balaji darshan system, integrated with the ICCC crowd analytics should be implemented. A real-time visitor management protocol should be informed by a ‘overtourism early warning system’ based on smartphone mobility data.

10.5 Ganga Water Quality as Non-Negotiable Priority

The highest single long-term tourism and spiritual asset management priority must be the attainment of full bathing quality standards ($BOD < 3 \text{ mg/L}$) on the Ganga at Varanasi. In the Ganga basin, the pace of construction and management of agricultural runoff should be hastened and norms for industrial discharge should be strictly enforced.

10.6 Social Housing and Anti-Displacement Measures

To fight the gentrification of heritage neighbourhoods, we need rent control laws for traditional residential areas, heritage tenancy protection laws and affordable housing for displaced residents within walking distance of the heritage core. A Heritage Neighbourhood Conservation Fund, funded by tourism levies, should assist in the preservation of traditional urban fabric.

11. CONCLUSION

The decade 2015-2024 has been an experience of Varanasi, replete with profound insights on the complex relationship between religious tourism and smart city development. This paper’s evidence shows that targeted large-scale smart city investment, notably the Kashi Vishwanath Dham Corridor, systematic ghat restoration, Ganga rejuvenation infrastructure, and digital urban

management systems, has greatly multiplied the economic impact of religious tourism. Tourist arrivals are up 42%, tourism revenue is more than double what it was, the sector's share of GDDP is up to 18.7% and total tourism employment has grown to nearly 395,000, clear proof of a transformation that has materially improved the lives of hundreds of thousands of Varanasi residents.

But this transformation is neither complete nor fair. While workers in the formal tourism sector prosper, the informal workers who make up the backbone of the pilgrimage economy of Varanasi like boatmen, artisans, priests, small vendors are being displaced, their incomes stagnate, and they are digitally excluded. The old city's organic urban fabric has partly sacrificed its living heritage on the altar of grand tourism infrastructure. Although the Ganga is measurably cleaner, it has not yet reached the bathing quality standards that would once again make it a safe resource for ritual bathing. The transformation of Varanasi thus serves as both an inspiration and a caution for other Indian heritage cities contemplating the smart city route for religious tourism development. The city shows how a combination of visionary cultural investment, systematic infrastructure modernisation and digital urban management can dramatically enhance the economic value of religious heritage. But it also shows that such amplification has to be consciously engineered to distribute benefits inclusively, preserve the authentic heritage that sustains tourism appeal and regenerate the ecological systems, above all the sacred Ganga, on which the entire edifice of Varanasi's civilizational significance ultimately stands.

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