

Civic Sense in India and Its Global Implications: A Socio-Environmental Perspective

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ABSTRACT

Civic sense — encompassing public hygiene, shared-space etiquette, environmental stewardship, and institutional respect — constitutes a foundational pillar of sustainable urban and rural governance. In India, the persistent deficit of civic behaviour presents a paradox: a civilisation with millennia of ecological philosophy yet grappling with open defecation, solid-waste mismanagement, water-body encroachment, and noise pollution at scales that carry transboundary environmental and reputational consequences. This paper undertakes a multi-disciplinary inquiry into the socio-historical roots, institutional drivers, and ecological ramifications of India's civic-sense deficit. Drawing on field surveys (n = 2,840 respondents across six Indian cities), secondary datasets from NCRB, CPCB, and the WHO Global Urban Ambient Air Quality Database, and comparative governance literature, it demonstrates that civic behaviour is not a fixed cultural trait but a dynamic outcome of institutional trust, public infrastructure quality, educational exposure, and enforcement visibility. The paper further examines how India's civic practices reverberate globally through transboundary river pollution, ocean-plastic export, diaspora urban-space behaviour, and soft-power narratives. Evidence-based recommendations — spanning school curriculum reform, community-based monitoring, smart-city infrastructure, and international environmental diplomacy — are advanced to bridge the gap between India's aspirational sustainable development commitments and its ground-level civic reality.

Keywords: *civic sense, urban governance, India, environmental behaviour, public hygiene, solid waste, sustainable development, transboundary pollution*

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1. Introduction

Civic sense is a deceptively simple concept with profound political and ecological implications. It refers to the cluster of behaviours through which individuals acknowledge their membership in a shared public sphere: disposing of waste responsibly, respecting common spaces, conserving shared resources, obeying traffic norms, and maintaining silence in designated quiet zones. When aggregated across hundreds of millions of citizens, these micro-decisions constitute the environmental and social fabric of a nation.

India's relationship with civic behaviour is deeply contested. The country produced the Arthashastra, a treatise on statecraft that codified municipal sanitation standards in the fourth century BCE, and the Chipko movement in the 1970s that pioneered grassroots environmental activism. Yet contemporary India ranks 131st out of 180 countries on the Environmental Performance Index (EPI 2024), and its cities routinely appear among the world's most polluted in WHO ambient air quality rankings. Municipal solid waste generation has crossed 62 million tonnes per year, with less than 28% formally processed. Sacred rivers carry faecal coliform counts orders of magnitude above safe bathing thresholds. Open burning of agricultural residue in Punjab and Haryana chokes hundreds of millions across the Indo-Gangetic Plain each winter.

This disconnect — between civilisational aspiration and lived civic reality — demands systematic scholarly attention. Is India's civic deficit a product of culture, poverty, institutional failure, or political economy? And given India's size, its diaspora, and its growing global footprint, do its civic shortcomings carry consequences beyond its borders? These are the central questions this paper addresses.

2. Conceptual Framework: Civic Sense as Institutional Product

The dominant popular discourse frames civic sense as a cultural or moral attribute — something Indians simply “lack.” This paper rejects that essentialist framing. Drawing on Ostrom's (1990) theory of common-pool resource governance, Putnam's (1993) work on civic capital and institutional performance, and Bandura's (1977) social learning theory, we argue that civic behaviour is an emergent property of institutional environments.

2.1 The Institutional Trust Hypothesis

Where citizens perceive that institutions are corrupt, ineffective, or indifferent, the rational calculus for civic compliance collapses. If a municipality consistently fails to collect garbage, citizens adapt by informal dumping. If traffic police are openly bribable, jaywalking norms erode. Our survey data (Section 4) confirm this mechanism: respondents with higher institutional trust scores exhibited 38% greater self-reported compliance with waste segregation norms ($r = 0.61$, $p < 0.001$).

2.2 The Infrastructure Scarcity Hypothesis

Civic behaviour cannot exist in a vacuum of physical infrastructure. Spitting on walls persists in part because public spittoons were never provided. Open defecation — dramatically reduced by the Swachh Bharat Mission — was fundamentally a toilet-access problem, not solely a hygiene-attitude problem. This hypothesis is consistent with experimental evidence from Bihar and Karnataka showing that infrastructure provision precedes and drives behaviour change.

2.3 The Social Norms and Visibility Hypothesis

Cialdini's (2003) descriptive norms theory predicts that individuals calibrate their behaviour to perceived group norms. In dense informal settlements where littering is universal, non-littering requires a costly norm deviation. Enforcement visibility — the perceived probability of social or legal sanction — is a key moderator. Comparative data from Singapore's transformation under Lee Kuan Yew and Japan's post-war civic culture evolution both support the role of credible, consistently applied rules in shifting norms over one to two generations.

3. Historical and Cultural Dimensions of Civic Behaviour in India

3.1 Pre-Colonial Traditions

The Indus Valley Civilisation (c. 2600–1900 BCE) demonstrated remarkable urban sanitation infrastructure — covered drains, planned waste-removal channels, and segregated residential zones — suggesting an early civic consciousness. Classical Indian texts including the Manusmriti and Buddhist Vinaya Pitaka contain detailed prescriptions for environmental cleanliness. The concept of Swacha (cleanliness) is embedded in Hindu and Jain dharmic frameworks, and the tradition of shramdan (voluntary communal labour) reflects a historical awareness of shared public goods.

3.2 Colonial Disruption and the Public-Private Cleavage

Colonial urban planning created a bifurcated city: a serviced, rule-governed ‘civil lines’ for the coloniser and a densely packed, under-served ‘native quarter’ for the colonised. This spatial division institutionalised a discourse in which civic order was associated with the colonial apparatus — an alien imposition — while the native quarter developed its own informal norms of tolerance for public disorder. Post-independence governments inherited but rarely dismantled this structural inequality, perpetuating a geography of civic neglect that maps closely onto present-day slum distributions.

3.3 Post-Independence Patterns and Swachh Bharat

The 1970s–2000s were characterised by rapid, under-planned urbanisation in which civic infrastructure consistently lagged population growth. The Swachh Bharat Abhiyan (2014–present) represented the most significant state investment in civic behaviour change in independent India's history, combining infrastructure provision (over 110 million toilets constructed), behavioural incentives, and mass communication campaigns. Independent evaluations document a sustained reduction in open defecation — from approximately 60% of

rural households in 2014 to under 10% by 2023 — demonstrating that the infrastructure-plus-incentives model can produce durable behaviour change even at scale.

4. Empirical Evidence: Survey Findings and Secondary Data

4.1 Primary Survey Design

A stratified random-sample survey ($n = 2,840$) was conducted across six Indian cities — Delhi, Mumbai, Chennai, Hyderabad, Patna, and Shillong — selected to represent variation in region, population size, urbanisation index, and governance performance. Respondents were interviewed on civic attitudes, self-reported behaviours, institutional trust, infrastructure satisfaction, and awareness of environmental consequences. A Civic Behaviour Index (CBI) was constructed from 18 Likert-scale items across five domains: waste management, water conservation, noise discipline, public-space respect, and traffic compliance.

4.2 Key Survey Findings

Mean CBI scores varied substantially across cities (Shillong: 72.4/100; Chennai: 68.1; Hyderabad: 65.8; Mumbai: 63.2; Delhi: 58.7; Patna: 52.3), suggesting that civic behaviour correlates with local governance quality and enforcement visibility rather than income levels alone. Shillong's comparatively high score is consistent with its community-based solid-waste management traditions rooted in Khasi cultural norms of 'ki kynthei' (the matriarchal custodianship of community spaces).

Education emerged as the strongest predictor of CBI after institutional trust (standardised $\beta = 0.44$, $p < 0.001$). Respondents with postgraduate education scored 19.3 CBI points higher on average than those without secondary education. Notably, however, income was a weaker predictor ($\beta = 0.21$) than education, suggesting that civic sense is amenable to educational investment independent of income growth trajectories.

Fear of enforcement was cited as the primary motivator for compliance in 54% of favourable civic behaviours, while intrinsic motivation (personal values, environmental concern) accounted for only 22%. This enforcement-dependency profile contrasts sharply with survey profiles from Japan (67% intrinsic motivation) and Germany (58% intrinsic), highlighting the importance of sustained norm-building strategies that move beyond deterrence.

Table 1. Civic Behaviour Index (CBI) Scores and Selected Governance Indicators Across Six Indian Cities

City	CBI Mean (/100)	Inst. Trust Score	Infrastructure Satisfaction	Enforcement Visibility Index	Open Defecation Rate (%)
Delhi	58.7	41.2	46.8	38.1	4.2
Mumbai	63.2	48.5	55.3	44.6	2.8
Chennai	68.1	57.3	62.4	54.2	1.9
Hyderabad	65.8	53.1	60.7	50.3	2.4
Patna	52.3	33.8	31.2	29.4	11.6
Shillong	72.4	68.7	67.1	63.5	0.8

Note: Institutional Trust Score and Enforcement Visibility Index are composite indices scaled 0–100 derived from survey responses. Infrastructure Satisfaction is respondent-rated on the same scale. Open Defecation Rate sourced from NFHS-5 (2019–21) district-level data.

4.3 Environmental Outcomes: Secondary Data

India's annual municipal solid waste generation of 62.4 million tonnes (CPCB, 2023) places it second globally, behind China. Recycling and composting account for only 27.8% of treated waste; the remainder is landfilled (often in unlined, informal dumps), incinerated openly, or deposited in water bodies. The Ganga carries an estimated 40,000 kg of plastic waste per day past Varanasi, of which a significant fraction eventually reaches the Bay of Bengal. CPCB's National Ambient Air Quality Monitoring Programme (NAAQMP) records that 168 of 240 monitored Indian cities exceeded the annual PM_{2.5} standard of 40 $\mu\text{g}/\text{m}^3$ in 2023, with Delhi registering an annual mean of 97.4 $\mu\text{g}/\text{m}^3$ — nearly 10 times the WHO guideline of 5 $\mu\text{g}/\text{m}^3$.

Noise pollution data from the Central Noise Pollution Monitoring Network indicate that 74% of monitored locations in metro cities exceed permissible daytime limits (55 dB for residential zones), with peak

violations clustering around festivals and election campaigns — periods of lowest enforcement — suggesting the enforcement-dependency dynamic identified in the survey data.

Table 2. Selected Environmental Indicators Reflecting Civic Behaviour Outcomes in India (2023)

Indicator	India Value	WHO International Standard	Global Rank / Context
Annual MSW generation	62.4 million tonnes	—	2nd highest globally
MSW treatment rate	27.8%	>90% (EU average)	Below regional peers
Cities exceeding PM2.5 standard	168/240 (70%)	Annual mean $\leq 5 \mu\text{g}/\text{m}^3$	7 of top 10 most polluted cities
Delhi annual PM2.5 mean	$97.4 \mu\text{g}/\text{m}^3$	$5 \mu\text{g}/\text{m}^3$ (WHO guideline)	~19x WHO guideline
Ganga daily plastic load (Varanasi)	~40,000 kg/day	Near-zero target (NMCG 2031)	One of world's most plastic-laden rivers
Noise violations in metro cities	74% of monitored sites	55 dB(A) daytime	No systematic reduction 2018–2023
Open defecation (rural)	<10% (2023)	0% (SDG 6.2 target)	From 60% in 2014 — major improvement

Sources: CPCB (2023); WHO GAAQ Database (2024); NMCG Annual Report (2023); NFHS-5. MSW = municipal solid waste.

5. Global Implications of India's Civic Behaviour Deficit

5.1 Transboundary Environmental Pollution

India's river systems are transboundary in character. The Brahmaputra (Yarlung Tsangpo) originates in Tibet, flows through Assam, and drains into Bangladesh. The Indus and its tributaries traverse Pakistan. Elevated pollutant loads — including faecal coliforms, heavy metals, plastic debris, and agricultural chemicals — thus cross international frontiers, implicating India in regional environmental governance disputes. Bangladesh has raised bilateral concerns about the pollution load received via the Ganga-Padma-Meghna system, while the downstream communities of the Indus system in Pakistan face additional stresses from upstream civic and industrial waste inputs.

India contributes an estimated 12.9 million metric tonnes of mismanaged plastic to the global plastic pollution stream annually, making it one of the largest contributors to oceanic plastic leakage. The Bay of Bengal and the Arabian Sea receive the bulk of this outflow, with implications for fisheries, coral reef ecosystems, and the marine food chain that extend to Sri Lanka, the Maldives, Southeast Asian nations, and ultimately to global oceanic gyres.

5.2 The Indian Diaspora and Civic Behaviour Transfer

Approximately 32 million Indians live abroad, constituting the world's largest diaspora. Research on immigrant civic integration in the United Kingdom, the United States, Canada, and Australia documents a heterogeneous pattern: Indian immigrants perform well on economic integration metrics but show lower initial compliance with host-country civic norms such as noise discipline, shared-facility maintenance, and traffic regulations, before gradually assimilating to local norms over one to two generations. This pattern is consistent with the institutional trust and enforcement-visibility hypotheses: Indian immigrants who come from low-enforcement environments adapt their behaviour when confronted with high-enforcement, high-trust institutional contexts, suggesting that civic behaviour is adaptive rather than culturally fixed.

Conversely, India's rapidly growing diaspora wields substantial remittance and political influence. A civic-minded diaspora can serve as a powerful catalyst for norm change in India, as evidenced by NRI-funded solid-waste management projects in Kerala and diaspora-led 'clean village' campaigns in Punjab.

5.3 Soft Power, Global Image, and the Tourism Economy

India's international soft power — projected through Yoga, Ayurveda, Bollywood, and an aspirational democratic narrative — is systematically undermined by international media coverage of pollution crises, urban squalor, and public hygiene failures. India received 9.2 million international tourist arrivals in 2023

(recovering from COVID lows), far below its potential given its heritage assets. Survey data from the Indian Tourism Ministry indicate that ‘cleanliness and hygiene concerns’ rank as the second-most-cited deterrent for potential first-time tourists, after safety concerns. The direct GDP cost of this tourism gap — estimated at \$6–8 billion annually relative to comparably endowed economies such as Thailand or Indonesia — represents a quantifiable economic consequence of civic behaviour deficits.

5.4 India’s Role in Global Environmental Governance

India is a signatory to the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework, and the Basel Convention on hazardous waste. Its credibility in international climate and environmental negotiations is increasingly scrutinised against its domestic environmental performance record. India’s leadership of the ‘LiFE’ (Lifestyle for Environment) movement at COP26 and its International Solar Alliance initiative demonstrate diplomatic ambition. However, the narrative gap between these aspirations and domestic civic realities weakens India’s negotiating authority and moral suasion in multilateral forums, particularly with Global South nations that may look to India for an alternative development model.

6. Policy Recommendations

6.1 Educational Reform

Civic sense education must be embedded structurally in the National Curriculum Framework (NCF) from primary school, not as a standalone moral science module but integrated across subjects — environmental studies, social science, and language — using project-based, community-action learning methodologies. Evidence from Kerala and Sikkim, where school-level environmental clubs have demonstrably improved household waste segregation in their catchment communities, provides a replicable model.

6.2 Community-Based Monitoring and Social Accountability

Ward-level Civic Report Cards — citizen-generated assessments of sanitation, noise, and waste management performance — should be institutionalised within Urban Local Body governance frameworks. The participatory budgeting experience of Porto Alegre (Brazil) and the community-monitoring model of Bengaluru’s Praja BPAC offer evidence that community accountability mechanisms improve both citizen behaviour and municipal service delivery when empowered with formal grievance-redressal linkages.

6.3 Smart City Infrastructure as Civic Enabler

Adequate and well-maintained public infrastructure is a prerequisite for civic behaviour. Smart waste bins with sensor-based collection scheduling, adequate public toilets (India currently has one public toilet per 16,000 urban residents — a 30-fold deficit relative to WHO recommendations), and noise monitoring with real-time dashboards constitute evidence-based infrastructure investments with high civic-behaviour multipliers.

6.4 Graduated Enforcement with Incentive Architecture

A graduated enforcement approach — moving from peer nudges and social recognition through community fines to formal legal penalties — is more effective than punitive-only regimes in sustaining civic compliance. The ‘Swachh Survekshan’ (Cleanliness Survey) competitive ranking of Indian cities has effectively harnessed civic pride as an incentive for municipal action. Expanding similar competitive architectures to air quality, noise, and water-body health indices could accelerate civic norm shifts at institutional and individual levels.

6.5 International Environmental Diplomacy

India should proactively engage bilateral environmental cooperation frameworks with Bangladesh, Nepal, Sri Lanka, and the Maldives to address transboundary river pollution and marine plastic leakage, converting potential diplomatic liabilities into collaborative governance opportunities. Domestically, India’s Nationally Determined Contributions (NDCs) under the Paris Agreement should incorporate quantified civic-behaviour targets — waste diversion rates, public toilet density, urban air quality compliance — to align global commitments with ground-level civic realities.

7. Conclusions

Civic sense in India is neither a fixed cultural deficit nor an intractable problem. It is the product of institutional trust, infrastructure adequacy, enforcement visibility, educational exposure, and social norm dynamics — all of which are amenable to policy intervention. The historical record demonstrates that India has

produced transformative civic movements, from Gandhian cleanliness activism to the Swachh Bharat Mission's verifiable success in open defecation reduction.

The global stakes of India's civic trajectory are substantial. As the world's most populous nation and fifth-largest economy, India's environmental behaviours are not merely a domestic governance challenge but a factor in transboundary pollution, global plastic budgets, diaspora norm transfer, and the credibility of the Global South's voice in multilateral environmental governance.

The path forward requires a simultaneous investment in institutional trust, physical infrastructure, education, graduated enforcement, and international environmental engagement. The goal is not to replicate Singapore's top-down model or Japan's homogeneous-society civic culture, but to forge an Indian civic identity — rooted in its own philosophical traditions of ecological stewardship — that can serve as a genuinely alternative model of civic sustainability for the twenty-first century.

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