



Safer Indian Cities beyond Surveillance: Integrating CPTED, Community Guardianship and Legal Governance

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ABSTRACT

Indian cities are being reshaped by dense mobility, mixed land use, digital platforms and rapidly changing patterns of public-space use. These shifts complicate crime prevention because risk is produced not only by offenders and formal policing, but also by the design, management and social use of places. This paper develops an integrated framework combining Crime Prevention Through Environmental Design (CPTED), community guardianship and legal-governance safeguards for the Indian urban context. Using a structured narrative review, secondary crime data and doctrinal analysis of contemporary Indian legal and policy instruments, the study examines how surveillance, access, territoriality, maintenance and activity support can be linked to participation, legitimacy, privacy and equity. A limited application to app-based taxi and delivery work is included because these workers are frequent users of transport, commercial and night-time spaces and therefore illuminate how urban safety intersects with changing patterns of work. They are treated as rights-bearing users, not as unpaid security agents. The proposed model combines micro-place diagnosis, inclusive co-design, proportionate technology, reliable reporting channels and outcome evaluation. It concludes that resilient crime prevention requires

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environmental design to be embedded within lawful, participatory and socially protective urban governance.

1. Introduction

Urban crime prevention is often framed as a question of police strength, criminal law and post-incident investigation. That frame is necessary but incomplete. The everyday opportunities for theft, harassment, assault and disorder are also shaped by the physical and social organisation of places: whether entrances are legible, sightlines are blocked, lighting is maintained, transport interchanges are supervised, dead spaces are activated, and routine users have trusted ways to report risk. In rapidly urbanising Indian cities, these conditions are especially dynamic. High-density mobility, informal commerce, fragmented maintenance responsibilities and digital platforms continually alter who occupies public space and at what times.

Crime Prevention Through Environmental Design (CPTED) offers a preventive vocabulary for this problem. Its core principles - natural surveillance, access management, territorial reinforcement, maintenance and activity support - seek to reduce opportunities for offending by changing the conditions under which places are used. Yet CPTED becomes weak when treated as a hardware checklist. Cameras, gates and brighter lights do not automatically produce safety, and poorly designed interventions can displace informal workers, intensify surveillance or exclude legitimate users. Contemporary prevention therefore requires a social and legal layer that asks not only whether an intervention can reduce opportunity, but whether it is legitimate, inclusive, proportionate and capable of being maintained.

This paper develops that broader approach for India. It asks: how can CPTED and community-based guardianship be integrated with contemporary legal and governance safeguards, and what role, if any, should platform-based workers play within such a model? The second question is deliberately narrow. Gig workers are not inserted as a separate crime-control programme; rather, they are examined because ride-hailing drivers and delivery workers are recurrent users of transport nodes, markets, residential edges and late-night commercial corridors. Their own exposure to road danger, theft, assault and poorly designed waiting spaces makes them relevant to the design of safer cities.

The paper makes three contributions. First, it links environmental criminology with legal governance, including the transition to the Bharatiya Nyaya Sanhita framework, privacy and data-protection principles, and the new operational social-security architecture for gig and platform workers. Second, it treats community guardianship as a legitimate, voluntary capacity rather than informal vigilantism. Third, it

proposes an implementable micro-place model that can be evaluated through crime, fear, access, equity and maintenance outcomes.

2. Conceptual and Legal Framework

The theoretical foundation begins with routine activity theory, which explains crime opportunities through the convergence of a motivated offender, a suitable target and the absence of capable guardianship (Cohen & Felson, 1979). Situational crime prevention translates that insight into practical measures that increase effort, increase perceived risk, reduce rewards, reduce provocations or remove excuses (Clarke, 1997). CPTED provides the place-based design language through which several of these mechanisms can operate. Jacobs' (1961) concept of 'eyes on the street' and Newman's (1972) defensible-space framework similarly emphasise the relationship between visibility, territorial cues, legitimate activity and informal social control.

A contemporary formulation must, however, distinguish surveillance from guardianship. Guardianship can be produced by residents, shopkeepers, transport personnel, vendors, workers, place managers and public agencies, but its legitimacy depends on role clarity and trusted channels. It should not mean profiling, coercive intervention or amateur policing. The most defensible form is 'distributed guardianship': ordinary users observe environmental risk, can seek help quickly, and are supported by institutions that respond without transferring burdens onto them. This approach is consistent with evidence that the success of place-based prevention is highly contextual rather than automatic (Cozens et al., 2005; Cozens & Love, 2015).

The legal layer performs a different function. India's new criminal-law framework - the Bharatiya Nyaya Sanhita, 2023 (BNS), Bharatiya Nagarik Suraksha Sanhita, 2023 and Bharatiya Sakshya Adhiniyam, 2023 - has been in force from 1 July 2024, subject to the notified exception relating to section 106(2) of the BNS (Ministry of Home Affairs, 2024a, 2024b, 2024c). These laws govern offences, procedures and evidence; they do not themselves design safer streets. CPTED should therefore be understood as an upstream preventive complement to, not a substitute for, criminal justice. When prevention measures involve CCTV, sensors, facial recognition, app-based reporting or location traces, constitutional privacy and proportionality become central. The Supreme Court's privacy jurisprudence in Justice K. S. Puttaswamy (Retd.) v. Union of India (2017) establishes that privacy is protected under Article 21 and that State intrusion requires legality, legitimate purpose and proportionality.

The Digital Personal Data Protection Act, 2023 and the Digital Personal Data Protection Rules, 2025 add an evolving statutory governance framework for personal data. The 2025 Rules have phased commencement dates; urban authorities should avoid assuming that every rule operates immediately; nevertheless, the

framework already signals the direction of responsible data practice: defined purpose, security, accountability and restraint in collecting identifiable information (Ministry of Electronics and Information Technology, 2025). For urban crime prevention, the practical principle is simple: collect only what is necessary for a defined safety objective, limit access and retention, and do not turn environmental-risk mapping into permanent surveillance of communities or workers.

3. Methodology

This study uses a structured narrative review combined with secondary-data and doctrinal legal analysis. The evidence base includes foundational environmental-criminology literature, systematic reviews and meta-analyses of CPTED-related interventions, recent scholarship on urban design and community prevention, official Indian crime statistics, government notifications, labour-policy materials and selected empirical studies of platform workers. Foundational works are retained where they define core mechanisms, while recent sources are prioritised for questions of effectiveness, technology, legal implementation and the changing urban workforce.

The review is organised by mechanism rather than by intervention label. Evidence is therefore read against five questions: (1) what opportunity mechanism is targeted; (2) what social form of guardianship is expected; (3) which users may gain or lose access; (4) what legal or data-governance safeguards are required; and (5) which outcomes could credibly demonstrate success. Official crime statistics are used for problem definition, not causal attribution. City-level changes in recorded crime may reflect reporting, enforcement, mobility and classification, so aggregate trends are not treated as evidence that CPTED itself succeeded or failed.

The gig-worker component is similarly bounded. It does not claim that platform workers are representative of all informal workers or that their presence causes lower crime. Instead, worker evidence is used to test whether an integrated urban-safety model recognises a group that is both highly mobile and exposed to public-space risks. This prevents the analysis from converting a labour issue into an unsupported crime-control claim.

4. Indian Urban Crime Context and the Need for Micro-Place Prevention

The most recent National Crime Records Bureau publication available in 2026 is Crime in India 2023. Across the 19 metropolitan cities with populations above two million, the recorded total of cognizable IPC and Special and Local Laws offences moved from 952,273 in 2021 to 853,470 in 2022 and 944,291 in 2023 (National Crime Records Bureau [NCRB], 2026). The 2023 total comprised 667,351 IPC crimes and



276,940 SLL crimes. Theft was the largest IPC category in these metropolitan statistics, accounting for 44.8 per cent of IPC cases; Figure 2 places that share alongside the next two largest reported IPC categories and the remainder. These figures should not be read as a ranking of urban safety; NCRB itself cautions against comparing jurisdictions purely on recorded crime because registration, reporting and local enforcement practices differ.

For prevention, the composition of crime is more useful than a league table. Theft and many public-space harms are often concentrated in recurring locations where targets, movement and guardianship intersect: station approaches, parking areas, commercial corridors, market edges, pedestrian links and mixed-use streets. The appropriate unit of analysis is therefore often the micro-place rather than the entire city. A metropolitan increase in crime may contain dozens of different local mechanisms, while a single poorly managed interchange may generate a persistent cluster of theft, harassment or fear.

Micro-place diagnosis should combine at least four information layers. The first is incident information - geocoded cases where available, or police-station and beat records where it is not. The second is temporal and mobility information: time of day, footfall, waiting patterns, vehicle movement and the effects of school, office, market and night-time cycles. The third is an environmental audit of lighting, visibility, entrances, concealment, signage, maintenance and inactive frontage. The fourth is user experience, particularly the experience of women, older persons, persons with disabilities, informal workers, transport workers and people who use the area at hours when formal supervision is thin.

This layered approach also clarifies the proper role of law. Criminal law provides standards of prohibited conduct and formal response after offences or attempts. Municipal law, planning rules, transport management and public-space administration shape the conditions in which risk arises. Data-protection law constrains how digital safety systems are used. Labour and social-security law matters when an intervention affects people who work in those spaces. Urban prevention is therefore a governance problem across legal domains, not a single-police-agency project.

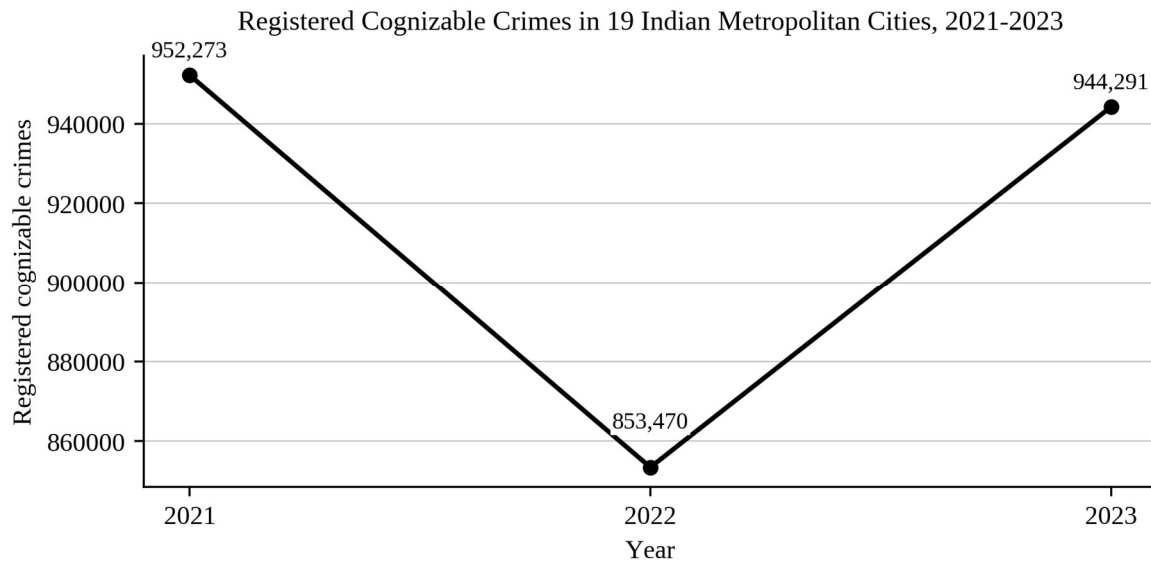


Figure 1. Registered cognizable crimes across 19 Indian metropolitan cities, 2021-2023.

Note. Authors' visualisation based on NCRB, *Crime in India 2023* (National Crime Records Bureau, 2026).

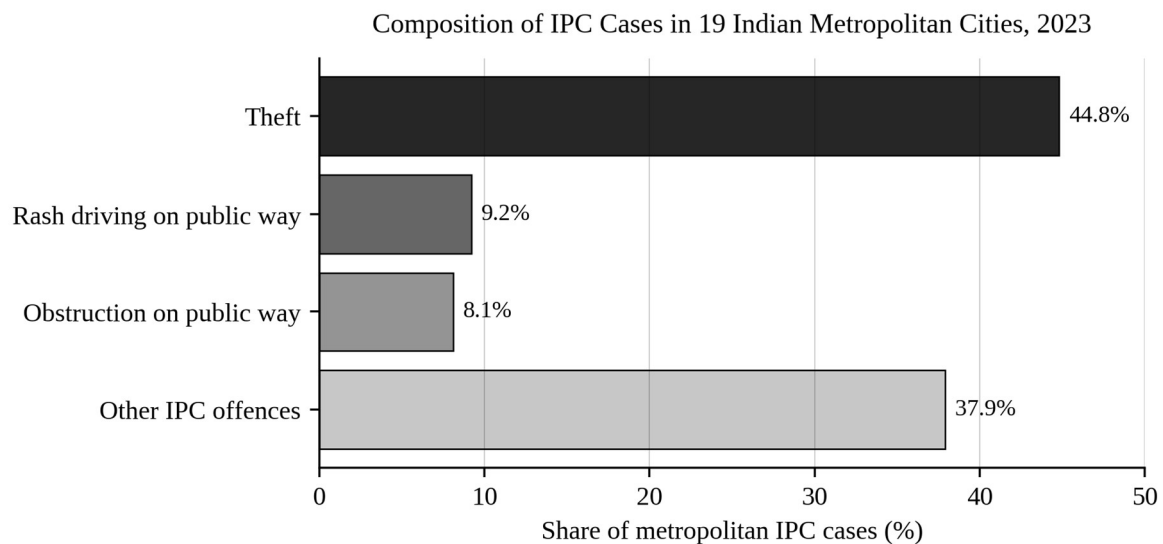


Figure 2. Selected composition of IPC cases in 19 Indian metropolitan cities, 2023.

Note. 'Other IPC offences' are the remainder after theft (44.8%), rash driving on a public way (9.2%), and obstruction on a public way (8.1%). Authors' visualisation based on NCRB, *Crime in India 2023* (National Crime Records Bureau, 2026).



5. What the Evidence Says About CPTED and Community Guardianship

Empirical literature supports CPTED, but not as a universal formula. Earlier reviews found evidence that environmental design and multi-component place-based interventions can reduce particular crimes and fear under appropriate conditions (Casteel & Peek-Asa, 2000; Cozens et al., 2005). More specific evidence is similarly conditional. Piza et al. (2019), in a systematic review and meta-analysis of CCTV, found crime-reduction effects that varied substantially by setting and implementation. Reviews of street lighting also indicate preventive benefits, while recognising that lighting may operate through several mechanisms, including visibility, increased legitimate use and signals of public investment (Welsh et al., 2022).

Recent scholarships make the caution more explicit. Widmark's (2026a) systematic review and meta-analysis of environmental-design interventions in residential settings identified an overall reduction in property crime but substantial heterogeneity; violent-crime effects were not consistently significant. In a separate difference-in-differences study of outdoor environmental improvements, Widmark (2026b) found no statistically significant overall crime reduction, illustrating why broad improvements cannot be assumed to work when intervention components are weakly aligned with specific crime mechanisms. Wen et al. (2025) likewise argue that CPTED research must better address spatiotemporal heterogeneity, long-term causal relationships and local applicability.

The policy lesson is not scepticism but precision. Natural surveillance is useful where sightlines and legitimate presence are genuinely relevant to offending. Access control is useful where it channels movement without creating dangerous isolation or excluding legitimate users. Maintenance matters when broken lights, abandoned structures or unmanaged vegetation create concealment and signal institutional neglect. Activity support works when compatible uses place more legitimate users in a space at relevant times. Each intervention should therefore state an explicit causal mechanism before money is spent.

Community participation improves that mechanism-matching process. Routine users often know when a lane becomes unsafe, which exit is avoided after dark, where waiting crowds block visibility, or which broken light has remained unrepaired because agencies dispute responsibility. Their knowledge can reduce diagnostic error. At the same time, participation must not become informal punishment. Community guardianship is strongest when people can report, document and seek support through accountable institutions rather than confront suspected offenders themselves.

6. Gig and Platform Workers: A Relevant but Limited Urban-Safety Role

The inclusion of platform workers is justified by the changing spatial organisation of Indian cities, not by a claim that gig work is inherently a crime-prevention resource. NITI Aayog (2022) estimated that India had about 7.7 million gig workers in 2020-21 and projected a possible increase to 23.5 million by 2029-30. A substantial share of platform-mediated work is concentrated in mobility, delivery and other services that operate through streets, transport nodes, commercial districts and residential neighbourhoods. These workers therefore encounter urban environments at times and locations that are not always well represented in conventional daytime planning.

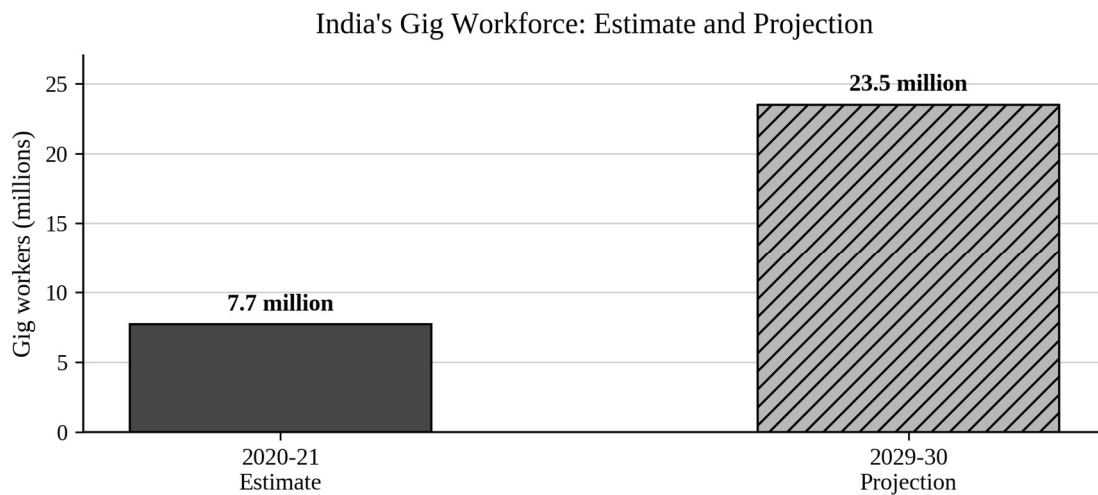


Figure 3. Estimated growth of India's gig workforce, 2020-21 to 2029-30.

Note. The 2020-21 value is an estimate; the 2029-30 value is a projection, not an observed count. Authors' visualisation based on NITI Aayog (2022).

Their first relevance to CPTED is vulnerability. A multi-city survey of app-based taxi and delivery workers reported widespread exposure to road-safety hazards and weather, with roughly 30 per cent reporting theft-related risks and about a quarter reporting physical-assault risk (Rathi et al., 2024). Fairwork India (2024) similarly treats safe conditions, risk mitigation and adequate worker protections as central to fair platform work. Long or irregular hours can also intensify exposure to poorly lit roads, unsafe pickup locations, isolated waiting areas and weak access to sanitation or emergency support. An integrated urban-safety framework should therefore ask how public-space design affects these workers before asking what they can contribute to other people's safety.

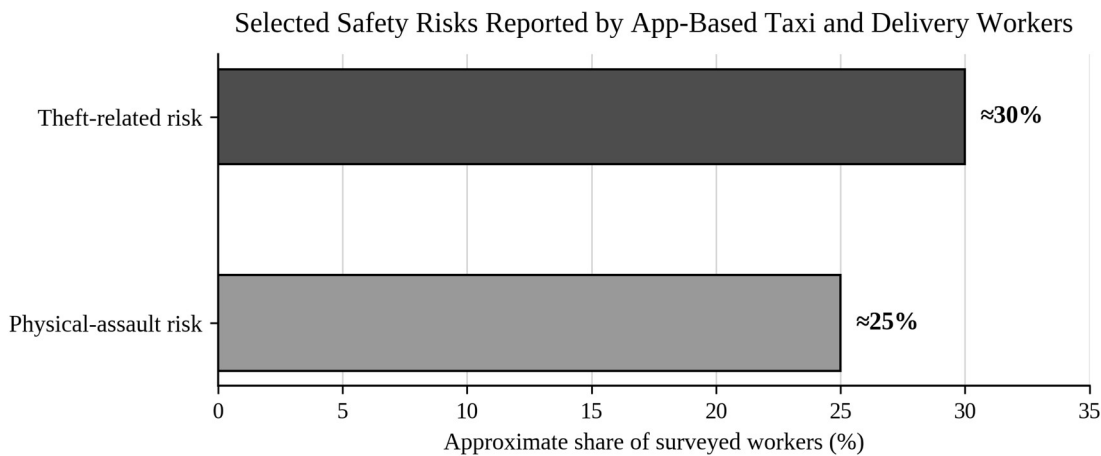


Figure 4. Selected safety risks reported by app-based taxi and delivery workers.

Note. Values are approximate (about 30% for theft-related risk and about 25% for physical-assault risk), reflecting the rounded figures reported in the manuscript. Authors' visualisation based on Rath et al. (2024).

There is, however, a narrow and defensible guardianship insight. Because drivers and delivery workers are routine users of streets and commercial edges, they may notice recurring hazards - broken lighting, blocked sightlines, unsafe parking, harassment locations or access routes that become isolated late at night. Their knowledge can improve participatory safety audits. Their ordinary presence may also increase natural surveillance in some places. But this effect should remain incidental and voluntary. Platforms or public authorities should not turn workers into unpaid patrols, require suspicious-person reporting, or use worker location data as a substitute for properly staffed public safety.

The Rights First paradigm is buttressed by current legislation on labour rights. On 21 November 2025, the Code on Social Security 2020, which covers gig and platform workers, was put into force. In January 2026, the Ministry of Labour and Employment (MLE) then provided instructions for its implementation, and in May 2026 it issued a notification of the Social Security (Central) Rules, 2026 (Ministry of Labour and Employment, 2026a, 2026b). The framework offers an anchor for schemes on life and disability insurance, accident and health insurance, old-age protection and other related social-security schemes. The focus of the regulations is thus on acknowledging platform workers as workers with welfare interests as opposed to nodes in the urban network that simply generated data.

The world has not stood still either. In June 2026, the International Labour Conference adopted the “Decent Work in the Platform Economy Convention, 2026 (No. 193) (ILO, 2026).” It has been established as an



international labour standard and it should not be mis-portrayed as binding on India by virtue of being adopted on the international level. In urban-safety policy concerning platform workers, attention should be paid to the principles of decent work, transparency and occupational safety and sound grievance procedures.

A practical CPTED audit can incorporate platform workers without overloading the paper's crime-prevention focus. At a railway-station market edge, for example, drivers and delivery workers can identify unsafe waiting pockets and conflict points between vehicles and pedestrians. The resulting intervention might create a visible, well-lit pickup zone close to active frontages, with clear signage, a panic or emergency contact point, access to sanitation and a platform-neutral reporting channel for infrastructure faults. Such design protects workers and passengers simultaneously. It is a better use of their situated knowledge than treating them as quasi-police.

7. An Integrated CPTED-Community-Legal Governance Model

The proposed model consists of five interrelated phases: diagnose, co-design, implementation, safeguard and evaluation. The order is important because many urban-safety failures start with a crime complaint and move straight to a preferred technology. A camera-first or barrier-first response can give the impression of action without determining the opportunity structure that created risk.

Stage one, diagnosis, specifies the micro-place and the problem in a specific way. The analysis does not ask if an area is 'unsafe', but rather what harm is occurring, when, to whom, and how through the environmental conditions. A theft problem around parked two-wheelers is different from a harassment issue on an isolated pedestrian link. Diagnosis should triangulate incident data, environmental observation and user accounts. Uncertainty should be reported where data are limited, not disguised as false precision.

Co-design (stage two) involves the agencies and users who actually make the place. Depending on the site, this may include municipal engineers, police, transport authorities, market associations, residents, women's groups, people with disabilities, vendors, platform workers and property managers. Co-design is not a veto for all participants; it is a way to find out what unintended consequences are before implementation. Preventable design error includes a barrier that makes access easier but not wheelchair friendly, a 'clean-up' that removes informal vendors who offer legitimate activity, or a pickup zone that pushes delivery workers into a dark service lane.

Stage three, implement, chooses the smallest effective package matched to the diagnosed mechanism. This can involve fixing and re-aligning lighting, removing or moving visual barriers, improving signage, re-arranging parking, creating pedestrian waiting areas that are visible, or implementing specific surveillance if

appropriate. Technology should be additive, not symbolic. An expensive sensor system may not be necessary if the problem can be addressed with natural surveillance and route design.

Stage four, safeguard, embedded legality and equity. Surveillance should have a documented purpose, authorised access, retention limits and security controls. Publicly shared crime maps should avoid identifying victims or labelling small communities as criminals. Participation must not authorise profiling on the basis of age, class, occupation, gender expression, migration status or informal work. Workers contributing to audits should do so voluntarily and should not face platform penalties for raising safety concerns. The legal-governance test is whether the prevention measure is proportionate to the risk and whether it preserves the rights and legitimate use of public space.

Stage five, evaluate, asks whether the intervention worked and for whom. Crime counts should be measured alongside exposure, footfall, fear, public-space use, reporting willingness, maintenance performance and displacement. A fall in reported theft may be positive, but it may also reflect lower reporting; a temporary rise may indicate improved confidence in reporting. Buffer areas should therefore be monitored for displacement, and comparable locations can be used where feasible. Evaluation should also record whether excluded groups lost access or whether surveillance burdens fell disproportionately on particular users.

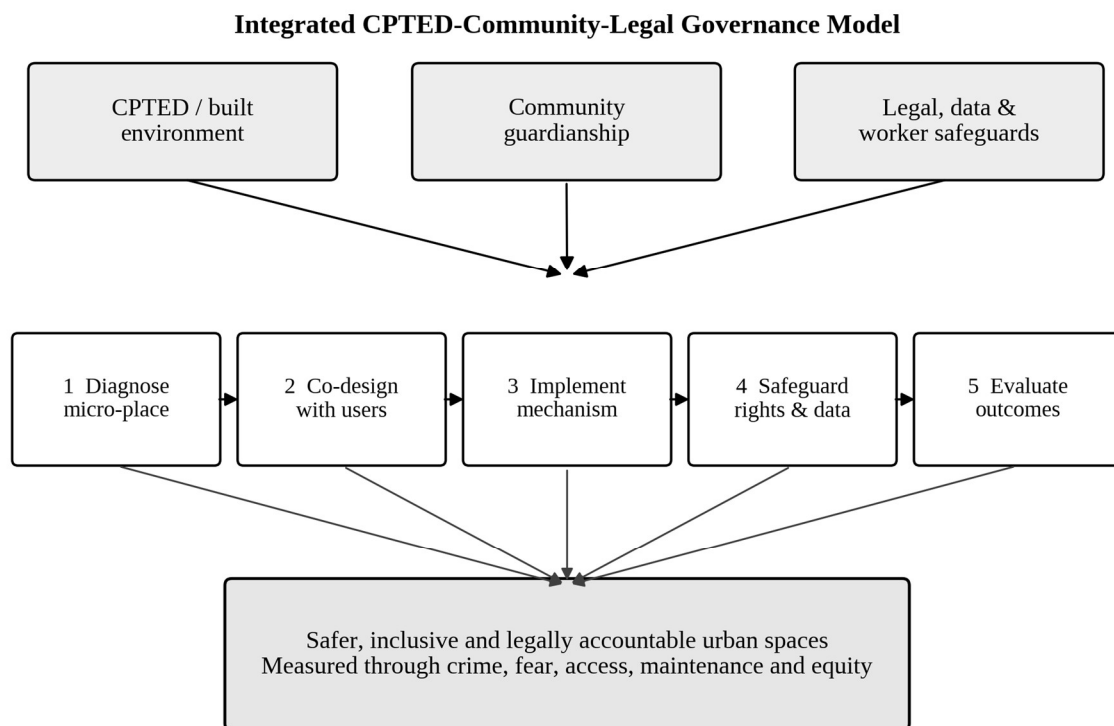


Figure 5. Integrated CPTED-community-legal governance model for micro-place prevention.

Note. Authors' synthesis based on the theoretical, legal-governance and implementation evidence reviewed in this paper.

Figure 3 summarises the proposed five-stage pathway, while Table 1 translates it into an operational governance matrix. The relevant actor changes with the mechanism: planners manage visibility and circulation; police contribute problem-oriented analysis; municipal bodies maintain infrastructure; communities provide situated knowledge; platforms have obligations toward worker safety and fair data practices; and independent researchers can evaluate outcomes. No single actor can credibly own the whole prevention system.

Table 1. Integrated Urban Safety Governance Matrix

Domain	Primary mechanism	Lead/participating actors	Safeguard	Indicative evaluation
Built environment	Visibility, access, territorial cues, activity and maintenance	Urban local body, planners, transport agencies, property/place managers	Universal access; avoid exclusionary design	Site crime, footfall, fear, maintenance response time
Community guardianship	Situated knowledge and legitimate presence	Residents, vendors, market groups, women's groups, transport users	Voluntary participation; no profiling or vigilantism	Reporting confidence, participation quality, perceived safety
Formal justice	Deterrence, response, investigation and evidence	Police, prosecution and justice institutions	Due process; problem-oriented rather than blanket enforcement	Response time, case quality, repeat hot spots



Domain	Primary mechanism	Lead/participating actors	Safeguard	Indicative evaluation
Platform/gig work	Worker safety and context-specific knowledge of mobile spaces	Workers, platforms, labour authorities, municipalities	No unpaid policing; worker safety, social protection and grievance rights	Worker-reported hazards, safe waiting access, incident and grievance outcomes
Data and surveillance	Targeted detection, diagnosis and accountability	Police, municipalities, platform/data custodians	Purpose limitation, proportionality, access and retention controls	Necessity, false positives, complaints, data breaches, measurable added value

Source: Authors' synthesis based on CPTED, legal-governance and worker-safety literature reviewed in this paper.

8. Data, Surveillance and Ethical Safeguards

Digital tools can enhance prevention if they address a specific question. GIS can help to identify clusters, mobile reporting can reduce maintenance delays, and CCTV can enhance formal surveillance in specific settings. The problem is when data collection is intervention. Historical police data may be affected by differential reporting and enforcement. Algorithmic risk scores can replicate those patterns. The location traces provided by worker apps can be very revealing. A lawful and ethical model thus distinguishes between operational needs and data appetite.

There are three safeguards that are essential. First, purpose limitation: data gathered for the purpose of fixing unsafe lighting should not be used as a behavioural-monitoring system. Second, proportionality: data should not be collected if identifiable data is not necessary. Third, accountability: agencies should document who can access data, for how long, and how errors or complaints are corrected. The phased implementation of India's data-protection regime makes institutional discipline especially important during transition (Ministry of Electronics and Information Technology, 2025).



Ethics also requires attention to the difference between being visible and being surveilled. CPTED's natural surveillance is often generated by legitimate activity and environmental visibility; it does not require every user to be electronically tracked. This distinction is particularly important for platform workers, whose work is already mediated by continuous digital management. Urban safety should not add a second layer of unnecessary monitoring under the language of guardianship.

9. Policy and Implementation Priorities for Indian Cities

Five policy priorities follow from the integrated model. First, urban local bodies should add a concise CPTED and inclusion screen to street redesign, transit-oriented development, parking projects, public housing, parks and major redevelopment approvals. The screen should require a stated crime mechanism, affected user groups and a maintenance owner rather than a generic 'security' box.

Second, police agencies should support micro-place diagnosis without monopolising urban safety. Beat information, incident patterns and victim reports are valuable, but transport agencies, municipalities and communities often control the environmental levels that need to change. Third, cities should institutionalise participatory safety audits for high-risk corridors, with deliberate inclusion of women, older users, persons with disabilities, vendors and late-hour workers. Platform drivers and delivery workers can be invited where their routine use is relevant, but participation should be voluntary and worker-centred.

Fourth, maintenance should be treated as a prevention variable. A repaired light or cleared sightline is useful only if responsibility for inspection, fault reporting and repair time is explicit. Low-cost maintenance may outperform high-cost technology where the mechanism is simple. Fifth, evaluation should be budgeted at project design stage. Cities need evidence about cost per offence prevented, change in perceived safety, maintenance burden and equity effects, including whether benefits diffuse to surrounding blocks or risks are merely displaced.

At the national and state levels, legal and policy coordination should keep pace with changing work and mobility. Social-security implementation for gig and platform workers, data-protection requirements and urban-safety planning should not proceed in isolation. The common principle is accountable risk governance: public authorities and private platforms should reduce foreseeable harms without weakening privacy, dignity, access or fair working conditions.



10. Limitations and Future Research

This paper is a secondary synthesis and does not estimate a new causal effect of CPTED in India. NCRB metropolitan statistics operate at a much larger scale than the micro-places at which environmental interventions are designed, and recorded crime is influenced by reporting and enforcement. The literature also contains substantial heterogeneity in intervention definitions, outcome measures and study quality. Evidence on Indian platform workers is growing but remains uneven across cities, platforms and occupations.

Future research should therefore test the proposed model prospectively. Multi-city studies could use a common audit instrument while allowing local intervention design, compare treated sites with credible comparison areas, and measure crime, fear, mobility, maintenance and equity over time. A specific research priority is whether the situated knowledge of late-hour workers improves diagnosis without increasing surveillance or shifting public-safety obligations onto precarious labour.

11. Conclusion

Urban crime prevention in India needs a framework that is preventive without becoming technocratic and participatory without becoming informal policing. CPTED remains useful because it directs attention to the opportunity structures of places, but its strongest form is not a checklist of cameras, gates and lights. It is a mechanism-based process that links environmental design to legitimate guardianship, maintenance, legal safeguards and evaluation.

The changing urban workforce illustrates why this broader perspective matters. Gig and platform workers are visible in many of the spaces where contemporary urban risk is experienced, yet they should enter prevention policy primarily as rights-bearing users whose safety, dignity and social protection deserve attention. Their situated knowledge may improve safety audits, and, in some contexts, their ordinary presence may contribute to natural surveillance. Neither possibility justifies converting them into unpaid security personnel or expanding unnecessary digital tracking.

A resilient Indian model should therefore proceed from micro-place diagnosis to inclusive co-design, proportionate implementation, explicit legal and privacy safeguards, and outcome evaluation. Such an approach complements formal criminal law while recognising that safer cities are produced not only in police stations and courts, but also through the everyday design, management and legitimate use of streets, markets, transport nodes and neighbourhood spaces.



References

- Casteel, C., & Peek-Asa, C. (2000). Effectiveness of crime prevention through environmental design (CPTED) in reducing robberies. *American Journal of Preventive Medicine*, 18(4 Suppl. 1), 99-115. [https://doi.org/10.1016/S0749-3797\(00\)00146-X](https://doi.org/10.1016/S0749-3797(00)00146-X)
- Clarke, R. V. (Ed.). (1997). *Situational crime prevention: Successful case studies* (2nd ed.). Harrow and Heston.
- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44(4), 588-608. <https://doi.org/10.2307/2094589>
- Cozens, P. M., & Love, T. (2015). A review and current status of crime prevention through environmental design (CPTED). *Journal of Planning Literature*, 30(4), 393-412. <https://doi.org/10.1177/0885412215595440>
- Cozens, P. M., Saville, G., & Hillier, D. (2005). Crime prevention through environmental design (CPTED): A review and modern bibliography. *Property Management*, 23(5), 328-356. <https://doi.org/10.1108/02637470510631483>
- Fairwork. (2024). *Fairwork India ratings 2024: Labour standards in the platform economy*. Bangalore, India; Oxford, United Kingdom. <https://fair.work/en/fw/publications/fairwork-india-ratings-2024-labour-standards-in-the-platform-economy/>
- Government of India. (2020). *The Code on Social Security, 2020* (Act No. 36 of 2020). Ministry of Law and Justice. https://labour.gov.in/sites/default/files/ss_code_gazette.pdf
- Government of India. (2023). *The Digital Personal Data Protection Act, 2023* (Act No. 22 of 2023). Ministry of Law and Justice. <https://www.meity.gov.in/static/uploads/2024/02/Digital-Personal-Data-Protection-Act-2023.pdf>
- International Labour Organization. (2026). *Decent Work in the Platform Economy Convention, 2026 (No. 193)*. https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:4496059
- Jacobs, J. (1961). *The death and life of great American cities*. Random House.



Justice K. S. Puttaswamy (Retd.) v. Union of India, (2017) 10 S.C.C. 1 (India).

Ministry of Electronics and Information Technology. (2025). *Digital Personal Data Protection Rules, 2025* (G.S.R. 846(E), 13 November 2025). Government of India. <https://www.meity.gov.in/static/uploads/2025/11/53450e6e5dc0bfa85ebd78686cadad39.pdf>

Ministry of Home Affairs. (2024a). *Notification S.O. 848(E), 23 February 2024: Commencement of the Bharatiya Nagarik Suraksha Sanhita, 2023*. Government of India. https://www.mha.gov.in/sites/default/files/BharatiyaNagarikSurakshaSanhita_24022024.pdf

Ministry of Home Affairs. (2024b). *Notification S.O. 849(E), 23 February 2024: Commencement of the Bharatiya Sakshya Adhiniyam, 2023*. Government of India. https://www.mha.gov.in/sites/default/files/BharatiyaSakshyaAdhiniyam_24022024.pdf

Ministry of Home Affairs. (2024c). *Notification S.O. 850(E), 23 February 2024: Commencement of the Bharatiya Nyaya Sanhita, 2023*. Government of India. https://www.mha.gov.in/sites/default/files/BhartiyaNyayaSanhita_24022024.pdf

Ministry of Labour and Employment. (2026a). *Key provisions under the Code on Social Security, 2020* (No. H-11025/03/2025-GPW, 29 January 2026). Government of India. <https://www.labour.gov.in/static/uploads/2026/03/d70bb9f7e87ec48bd64fde40329f9c09.pdf>

Ministry of Labour and Employment. (2026b). *Social Security (Central) Rules, 2026* (G.S.R. 344(E), 8 May 2026). Government of India. <https://www.labour.gov.in/offerings/schemes-and-services/details/labour-codes-gzNzQzMtQWa>

National Crime Records Bureau. (2026). *Crime in India 2023*. Ministry of Home Affairs, Government of India. <https://www.data.gov.in/catalog/crime-india-2023>

Newman, O. (1972). *Defensible space: Crime prevention through urban design*. Macmillan.

NITI Aayog. (2022). *India's booming gig and platform economy: Perspectives and recommendations on the future of work*. Government of India. https://www.niti.gov.in/sites/default/files/2022-06/25th_June_Final_Report_27062022.pdf

Piza, E. L., Welsh, B. C., Farrington, D. P., & Thomas, A. L. (2019). CCTV surveillance for crime prevention: A 40-year systematic review with meta-analysis. *Criminology & Public Policy*, 18(1), 135-159. <https://doi.org/10.1111/1745-9133.12419>



Rathi, A., Sekharan, A., Tandon, A., Chetna V. M., Furtado, C., & Sekhar, N. (2024, February 15). *Workers' experiences in app-based taxi and delivery sectors: Key initial findings from multi-city quantitative surveys*. Centre for Internet and Society. <https://editors.cis-india.org/raw/workers-experiences-in-app-based-taxi-and-delivery-sectors-key-initial-findings-from-multi-city-quantitative-surveys>

Welsh, B. C., Farrington, D. P., & Douglas, S. (2022). The impact and policy relevance of street lighting for crime prevention: A systematic review based on a half-century of evaluation research. *Criminology & Public Policy*, 21(3), 739-765. <https://doi.org/10.1111/1745-9133.12585>

Wen, Y., Qi, H., Long, T., & Zhang, X. (2025). Designed for safety: Characteristics and trends in crime prevention through environmental design research. *Journal of Asian Architecture and Building Engineering*, 24(4), 3108-3126. <https://doi.org/10.1080/13467581.2024.2366823>

Widmark, J. (2026a). Crime prevention in residential areas: A systematic review and meta-analysis of environmental design approaches. *European Journal on Criminal Policy and Research*. <https://doi.org/10.1007/s10610-026-09659-y>

Widmark, J. (2026b). Estimating the effects of outdoor crime prevention interventions using a staggered difference-in-differences model. *Crime Prevention and Community Safety*, 28, 25-40. <https://doi.org/10.1057/s41300-026-00233-6>

1 In this paper, CPTED is used as an upstream preventive framework; it is not presented as a source of criminal liability or as a substitute for statutory police powers under the Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita or Bharatiya Sakshya Adhiniyam.

1 The Code on Social Security, 2020 distinguishes gig workers and platform workers. This paper uses platform workers primarily for location-based app-mediated taxi and delivery work, while recognising that gig work is a broader category.