

# Analyzing Crimes in Public Spaces of New Delhi through News Reports: The Need and Possibility of Integrating Crime Prevention through Environmental Design Principles

Peer-approved: 6 October 2023

© The Author(s) 2023. This is an Open Access article under the CC BY 4.0 license.

Qeios, Vol. 5 (2023)  
ISSN: 2632-3834

Prarthana Garg<sup>1</sup>, Raja Singh<sup>1</sup>

1. ISAC Centre for Built Environment Policy, India

Delhi has crime in public spaces that must be addressed using a multi-disciplinary approach. In this research study, we investigate the need and possibility of integrating Crime Prevention Through Environmental Design (CPTED) principles into the built environment for crime reduction in New Delhi. By analyzing 100 criminal activity records from New Delhi's public spaces, from 2017 to 2023, sourced from news websites, we categorized incidents based on CPTED's four principles: surveillance, access control, territorial reinforcement, and maintenance. Remarkably, our findings reveal that an overwhelming 91% of the analyzed crimes may be either facilitated or influenced by elements of the built environment. Notably, a predominant factor contributing to criminal incidents was the absence of natural surveillance measures as defined in CPTED principles. This study underscores the critical role of urban design in shaping crime patterns and advocates for a comprehensive integration of CPTED principles to foster safer and more secure urban spaces in New Delhi.

**Keywords:** CPTED, built environment, public spaces, crime, surveillance.

**Corresponding author:** Raja Singh, [rajaresearch@proton.me](mailto:rajaresearch@proton.me)

## Introduction

City identity is shaped by its streets and community areas. Among urban settings, no other environment captures the essence of city life as effectively as a public space. Public spaces, regardless of their form or definition, serve as hubs for interaction, socialization, and passage, while occasionally—albeit rarely—exposing individuals to criminal risks. Consequently, public spaces are inherently prone to criminal activity due to the opportunities they present, sometimes discernible to offenders only in specific locations and timeframes. Extensive research in environmental criminology and place-based crime prevention has consistently highlighted the critical role that situational conditions of public spaces play in influencing crime rates and perceptions of safety.<sup>[1]</sup>

An effective strategy in crime prevention is Crime Prevention Through Environmental Design (CPTED), emphasizing strategic manipulation of the physical environment to discourage potential offenders. Its lineage can be traced back to Jane Jacobs, whose groundbreaking work challenged conventional urban planning paradigms by emphasizing the significance of safety and security in thriving urban environments<sup>[2]</sup>. This notion aligns with Brattingham's assertion<sup>[3]</sup> that the arrangement of urban elements profoundly shapes crime occurrences and individuals' fear levels.

Delving into the context of New Delhi, India, reveals a nuanced interplay of strengths and vulnerabilities. While these spaces excel in promoting inclusivity and community interactions, they are also confronted with challenges related to crime and safety. According to the National Crime Records Bureau report 2021<sup>[4]</sup>, among union territories, Delhi had the highest rate of crimes against children and women in 2021. The national capital witnessed a distressing trend, with an average of two minor girls being raped every day<sup>[5]</sup>. This unfortunate statistic establishes Delhi as likely the country's most unsafe metropolitan city for women. During the same period, Delhi also witnessed a disturbing number of abduction and kidnapping cases involving women. According to Delhi Police statistics, there has also been a notable rise of 30–40 per cent in street crimes, including robbery, snatching etc., in 2021 as compared to 2020.<sup>[6]</sup> Factors such as inadequate lighting, surveillance, and policing contribute to incidents like theft and harassment. The concerning escalation in crimes against women and the prevalence of street crimes in Delhi underscore the pressing need to imbue CPTED principles into the urban landscape. This study endeavors to mitigate crime statistics and amplify public safety in these spaces by leveraging the built environment to deter opportunistic crimes

## Background

Researchers and practitioners now emphasize the potentialities and possibilities in understanding the connections between urban crime and environmental design.<sup>[7]</sup> In 1971, Jeffery, a pioneer in the area of CPTED, criticized ineffective crime control policies and proposed proactive mitigation of environmental conditions as a more fruitful strategy for crime reduction.<sup>[8]</sup>

Numerous studies in the literature provide substantial evidence to affirm that CPTED plays a crucial and successful role in reducing crime within a community<sup>[9]</sup> and that the level of specific crimes can be reduced by changing the physical situation in which

they occur (Clarke and Mayhew, 1980 Heal and Laycock, 1986).<sup>[10]</sup> More specifically, studies have posited four basic dimensions for CPTED: Natural Surveillance, Access Control, Territoriality and Maintenance<sup>[11]</sup>

## Four Dimensions of CPTED

### Natural Surveillance

The dimension of natural surveillance points that when offenders believe that their actions are subject to observation, consequently raising the likelihood of being caught, they are more inclined to refrain from committing crimes. Previous research affirms that homes with high surveillance ratings are considered the least vulnerable targets for burglars<sup>[12]</sup> <sup>[13]</sup>. A study conducted in the UK by Bennett and Wright (1984) <sup>[14]</sup> asserted that burglars perceived surveillance as a significant factor influencing their decision-making process. Data from the 1992 British Crime Survey show that the majority of violent crime occurs public areas between 18.00 hours and midnight due to the dim lighting and lack of natural surveillance<sup>[15]</sup>. Poorly illuminated streets create an endless array of obscured areas, shadows, and potential spots where individuals could be trapped. Therefore, by addressing the root cause of fear, which is darkness, high-quality street lighting can significantly contribute as an effective strategy to reduce fear<sup>[16]</sup>

### Natural Access Control

The idea behind access control centers on diminishing opportunities for crime through measures that deny access to potential targets and instill a heightened sense of risk for offenders.<sup>[17]</sup> <sup>[18]</sup> This approach aligns with Newman's Defensible Space theory<sup>[19]</sup> and involves the use of both symbolic and physical barriers that can act as deterrents to criminal activities. In a study done by Clarke (1993), it was seen that the implementation of new automatic gates on public transport has effectively curbed fare evasion and, reportedly, led to a noteworthy increase of approximately 10 percent in ticket sales compared to stations without gates. Weidner's study (1993) showed that in New York, the introduction of new gates at transit stations contributed to a reduction in arrests. According to Ekblom (1987, 1988) the use of bullet-proof barriers at banks has been particularly successful in reducing robberies, with reductions of up to 65 percent when compared to control groups. <sup>[20]</sup>

### Territorial Reinforcement

Altman<sup>[21]</sup> outlined a definition of territorial behavior as the "personalization of or marking of a place or object and communication that it is 'owned' by a person or group." Defense responses may sometimes occur when territorial boundaries are violated. Brown and Altman (1983) compared houses in residential areas that had been burglarized with those that had not and discovered that implementing territorial concepts, such as clearly defined boundaries or signs of ownership, can have a positive impact on reducing burglary rates. This effect is achieved by influencing burglars' perceptions of a target's vulnerability, making them less likely to target properties that exhibit strong territorial displays.

## Maintenance

Regarding maintenance, Brown et al. (2004)<sup>[22]</sup> pointed out that observable physical incivilities, such as poorly maintained lawns and litter, play a significant role in predicting crime at both individual and block levels. The evidence indicated that houses with inadequate maintenance were perceived as less defensible and more susceptible to crime compared to well-maintained properties.<sup>[23]</sup> According to Spelman (1993)<sup>[24]</sup>, empty properties have been identified as crime "hotspots" and smaller buildings are often preferred locations for drug dealing due to their limited management and financial resources to control such illicit activities. Wilson and Kelling's "Broken Windows" theory<sup>[25]</sup>, proposed in 1982, emphasized the significant role of environmental upkeep as a tangible representation of social cohesion and informal social control levels.

Numerous studies in the Indian context, and more precisely in the context of New Delhi, confirm yet again, that built environment can in fact act as an enabler of crime. In a study done by Gupta (2020)<sup>[26]</sup> to undertake behavioral mapping of crime hotspots in Delhi, it was found that large open parking areas near commute circles like metro stations and bus stands became highly crime prone during the evening and night time due to presence of targets and spatial opportunity to undertake criminal activity. However, once these areas were closed, criminal activity did not stop, but was shifted to other areas. The same study shows that bus stands located in most criminal hotspots seem to be highly susceptible to crime. This vulnerability is attributed to their transient nature, making them attractive targets for criminal activities. Railway stations also face a significant crime risk. In contrast, bus terminal-ISBT locations and metro stations report a lower crime rate primarily because these places are subject to surveillance by terminal authorities using digital surveillance devices and are protected by boundary walls.

Another study done by Nangia et al.<sup>[27]</sup> demonstrated the influential built environment factors impacting crimes against women in Delhi's National Capital Territory. Factors encompassed underreported crimes due to cumbersome legal procedures, a diverse population in crowded public areas, inadequate police patrolling, and disregarded urban facilities like water pumping rooms and electric sub-stations. Absence of street lights, abandoned recreational areas, unmaintained open grounds, and poorly designed spaces also played roles.

Thus, based on the literature, it can be inferred that criminals tend to choose locations with reduced surveillance (Painter & Tilley, 1999), limited access control (Hirschfield et al., 2010; Weisel, 2002, 2004), diminished territoriality (Brown & Altman, 1981; Brown & Bentley, 1993; Perkins et al., 1993), lower maintenance (Brown, 1987; Brown et al., 2003, 2004; Taylor, 2002), and consequently, a lower level of the CPTED construct.<sup>[28]</sup>

## Aims and Objectives

The aim of this study is to investigate the need and possibility of integrating Crime Prevention Through Environmental Design (CPTED) principles into the built environment to mitigate crime in public spaces of New Delhi through a comprehensive analysis of 100 newspaper reports.

### Objectives

1. Categorizing all criminal activity records under CPTED principles that could have likely prevented the crime.

2. The need and possibility of integrating Crime Prevention Through Environmental Design (CPTED) principles into the built environment for crime reduction in New Delhi

## Need for Study

Delhi has India's highest crime density values, with 20,660 reported in 2021 per square kilometer.<sup>[30]</sup> Live Mint reported a drastic 440% rise in major crimes in Delhi over a decade, including an 827% increase in theft and a 552% surge in chain snatching cases from 2012 to 2021.<sup>[31]</sup> Heinous crimes like rape and murder have also skyrocketed.

Delhi recorded 13,892 cases of crimes against women in 2021, a significant surge of more than 40% compared to 2020 when the figure was 9,782.<sup>[31]</sup> Notably, the Shahbad Dairy incident spotlighted the densely populated area's challenges, including narrow alleys, abandoned spaces, and lack of surveillance.

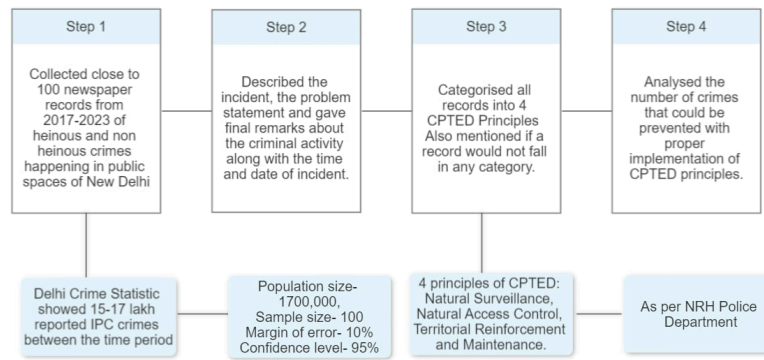
The Indian Express conducted the "Delhi in the Dark"<sup>[32]</sup> article series to uncover hazardous, unlit crime hotspots. Notable observations included darkness along crucial stretches like the Raj Ghat traffic signal junction and the 1.2-kilometer Africa Avenue Road section, worsened by fog. The Kamla Nagar Ridge area, a pivotal link, remained dark, prompting vehicles to avoid it. The Dwarka streets also exhibited dim lighting, with minimal police presence.<sup>[32]</sup> Visitors of public spaces like parks complain of the broken walls, multiple entrances and broken/stolen lights which add to the lack of security and make public spaces a "haunt for criminals"<sup>[33]</sup>. In a separate probe of accident-prone areas, Dhaura Kuan ranked third due to merging traffic, deteriorated infrastructure, and inadequate signage.<sup>[34]</sup> Natural Surveillance, a critical element of CPTED, encompasses that being visible to other people acts as a deterrent to criminals, diminishing the potential for criminal acts. Inadequate or absent lighting can foster criminal behavior due to reduced visibility, highlighting the significance of illumination in crime prevention.<sup>[35]</sup>

Such contexts and statistics warrant an audit and underscore the significance of this study. The Municipal Corporation of Delhi is planning to develop a series of women-only parks across the city with an aim to provide safe public spaces for them<sup>[36]</sup>; this may be indication enough that public spaces may be unsafe and warrant intervention.

## Methodology



The stretch from RK Puram Metro station to Sri Venkateshwara Marg on Africa Avenue Road. (Indian Express Photo by Gajendra Yadav)<sup>[29]</sup>



**Figure 1.** The detailed methodology involved in the present study. *Source: Authors*

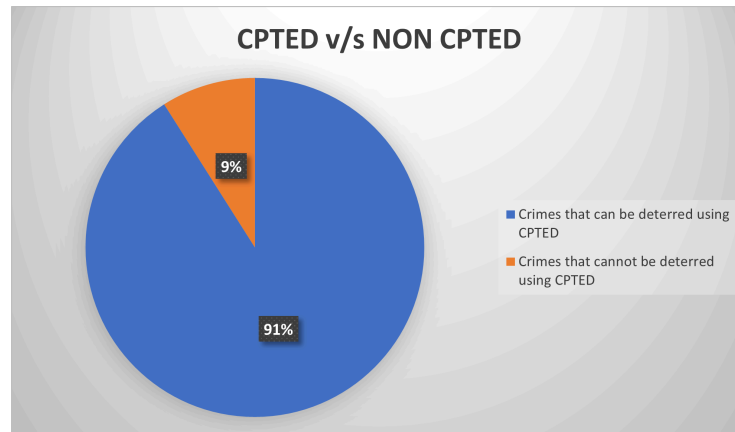
In the context of the current research, as depicted in Figure 1, a comprehensive investigation involving the acquisition of 100 carefully curated records documenting criminal activities spanning the years 2017 to 2023. These records were sourced diligently from both print and digital media outlets, ensuring a diverse and representative sample. The primary focus was directed towards criminal incidents that transpired in the proximity of public spaces, encompassing a broad spectrum of locations such as parks, vicinities around victims' residences, flyovers, and underpasses. The spectrum of criminal activities under examination exhibited a striking diversity, comprising both heinous transgressions such as rape, murder, and kidnapping, as well as less severe offenses including snatching incidents.

Throughout the data collection phase, each recorded incident underwent thorough scrutiny, including detailed descriptions of the circumstances, the articulation of a clear problem statement elucidating the contextual factors at play, as well as the inclusion of insightful remarks. Importantly, for each incident, we identified the specific Crime Prevention Through Environmental Design (CPTED) principle(s) that could potentially have served as a deterrent to the perpetration of the crime in question. This approach facilitated a nuanced examination of the practical applicability of CPTED principles in mitigating criminal activities.

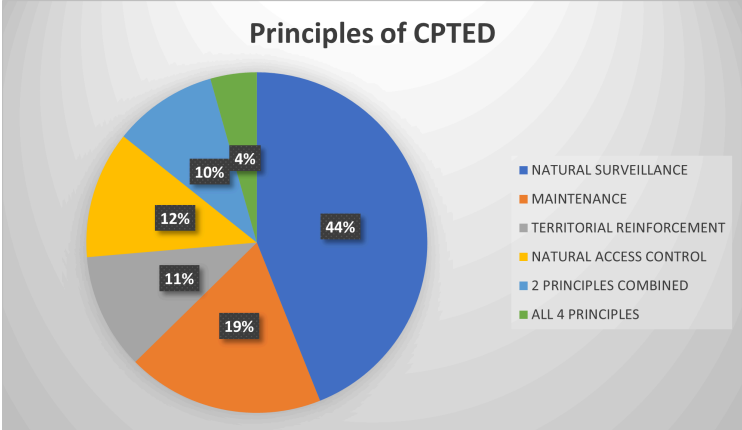
It is important to underscore the statistical robustness of our study by juxtaposing it against the backdrop of the official crime statistics provided by the Delhi police. These statistics reveal a significant range of Indian Penal Code (IPC) crimes occurring in Delhi between 2017 and 2023, with figures oscillating between 15 to 17 lakhs. In light of our methodological rigor and the strategic selection of a sample size of 100 incidents, we maintain a compelling confidence level of 95%, with a narrow margin of error capped at a mere 10%.

The research endeavors to culminate in a thorough and scientifically sound analysis. This analysis seeks to unravel the intricate web of correlations between CPTED principles and crime prevention, offering valuable insights into the extent to which these principles have the potential to thwart criminal activities. The convergence of our methodological acumen, comprehensive dataset, and meticulous analysis confers a high degree of validity upon our findings, thus contributing substantively to the field of urban crime prevention and public safety.

## Results and Analysis



**Figure 2.** The number of crimes recorded that can be prevented using CPTED principles v/s those which cannot be prevented using these principles. Source: Authors



**Figure 3.** Percentages of crime records that fell in each or multiple CPTED principles. Source: Authors

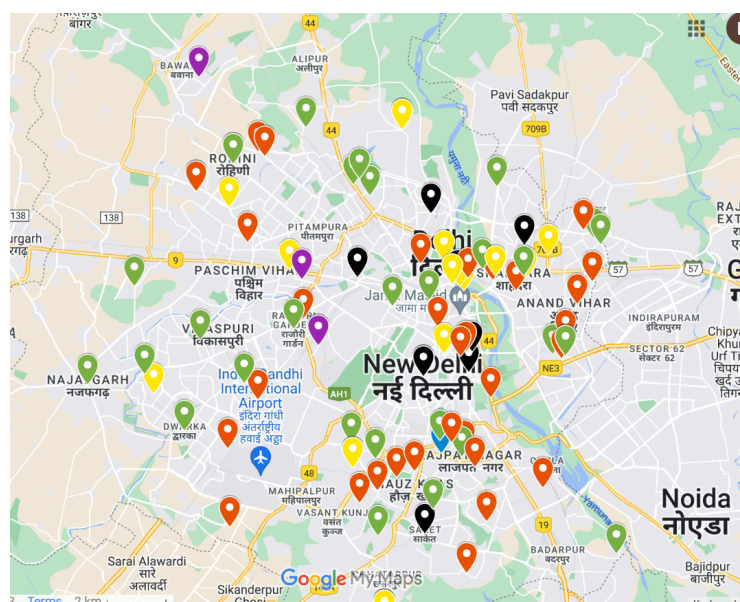


Figure 4. Crime hotspots of Delhi derived from newspaper reports.

Legend:

- Red mark- Sexual assault/Rape/Gang Rape
- Green mark-Murder
- Yellow mark- Road Accidents
- Black mark- Robbery/Snatching/Theft
- Purple mark- Miscellaneous

Note: The positions of the crime location may vary as only the approximate location based on newspaper records has been marked.

See interactive map here: <https://www.google.com/maps/d/u/0/edit?mid=19Fkia8WlUGSbURZOazADGwka7eNI&usp=sharing>

Figure 2 illustrates a likely contrast between two categories of recorded crimes in relation to the applicability of Crime Prevention through Environmental Design (CPTED) principles. At a glance, it may be evident that a significant majority of crimes, constituting a substantial 91% of the total, fall within the realm of preventability through the integration of CPTED principles into the built environment. This underscores the efficacy of CPTED in influencing criminal behavior and underscores the critical link between the physical surroundings and criminal activity.

In figure 3, it can be seen that an overwhelming number of incidents i.e. 44% incidents can be deterred just by using the principle of “natural surveillance”. A large number of people commit a crime because they have less fear of being “seen”. A person is less likely to commit a crime if they think someone will see them do it. Lighting and landscape play an important role in CPTED. For example, in a terrifying crime that took place at the dawn of the New Year of 2023, a woman was dragged for 13 kilometers under a car. Desolate stretches of roads and sprawling neighborhoods makes it easy for criminals to operate with impunity. The road was dimly lit on a foggy winter night, covered in potholes, with no CCTV cameras and police chowkis around. This is just one of the numerous instances that could have been prevented with better surveillance measures.

19% of all crimes could have been prevented if the “maintenance” principle was followed. CPTED and the concept of the “Broken Window Theory” propose that a single instance of disorder or nuisance, if permitted, can trigger a chain reaction of similar issues, ultimately contributing to the deterioration of an entire community. Neglected and poorly maintained properties may be breeding grounds for criminal activity.<sup>[32]</sup> A 72-year-old woman was stabbed to death in broad daylight in east Delhi’s Mandawali. Assailants overtook her two-wheeler and parked it near the under-bridge. As she reached the under-bridge, they intercepted her and stabbed her multiple times before fleeing. Neglected and poorly maintained properties like under-bridge areas, which are also dark and have no CCTV coverage, are breeding grounds for criminal activity. In another instance, 2 hawkers raped a minor girl in a bushy area near some railway tracks and a woman was raped in an abandoned electric room near the railway station. Another girl was raped in an abandoned open gym of a DDA park. Unkempt and abandoned areas also provide an opportunity for crimes to take place.

Natural Access control is another important principle which can be used to prevent crime. It is more than a high block wall topped with barbed wire. CPTED utilizes the use of walkways, fences, lighting, signage and landscape to clearly guide people and vehicles to and from the proper entrances. 12% of crimes could have been prevented

using this principle. A 22-year-old woman lost her life and another individual was injured after a truck collided into their car. The collision occurred at a traffic signal, as a Maruti car had stopped behind a truck, and another truck hit the car from behind, resulting in severe damage. Proper road design, signage, and effective traffic management at intersections can prevent accidents like these. Creating safe spaces for vehicles to stop and wait at traffic signals can reduce the risk of collisions from behind.

11% of total crimes had the possibility of being prevented, given that there were good territorial reinforcement measures in place. Creating or extending a “sphere of influence” by utilizing physical designs such as pavement treatments, landscaping and signage that enable users of an area to develop a sense of proprietorship over it is the goal of this CPTED principle. Public areas are clearly distinguished from private ones. Potential trespassers perceive this control and are thereby discouraged. Multiple instances of people running over homeless people sleeping on pavements, trespassing in a slum dwelling, etc have been seen.

The most disturbing and heinous crimes were seen when 2 or more CPTED principles were absent and miscreants perceived this as an opportunity in their interest. Lack of surveillance and maintenance were most commonly seen together- an isolated and abandoned public space with little to no lighting and landscape is a safe haven for any criminal. 10% of all crime fell in this category- where 2 CPTED principles were absent, followed by 4% of crime wherein there was absolutely no CPTED principle in place.

An analysis of the time and place of these incidents was also done and an overwhelming 75% crime took place after the sun started setting i.e. when there was no broad daylight. This reflects that people with an intention of committing a crime understand and are aware of the lack of good lighting which will aid their operations. Most crimes also took place in the evening and late night hours in public parks, bushy and forested areas, narrow alleys and under-passes (Figure 4). These are the darkest and most unkempt of all public spaces, giving a perfect opportunity to the miscreant.

## Discussion

This research study provides compelling evidence that integrating CPTED principles into the built environment can substantially contribute to crime reduction in New Delhi. Horrendous incidents like gang rapes of minors and elderly in public spaces meant for them like parks, cars running over the homeless sleeping on pavements due to bad lighting, trucks ramming into dividers due to improper signages and



landscaping should be taken into notice by policymakers and an aggressive strategy to ramp up the infrastructure needs to be undertaken.

A notable pattern emerges from the data, with a substantial proportion of crimes occurring due to the absence of natural surveillance measures. The findings align with the core premise of CPTED, emphasizing the importance of creating environments that enhance natural surveillance and reduce opportunities for criminal acts. Adequately maintained trees and greenery in parks, well-pruned bushes, effective illumination, and appropriate park furnishings can create unobstructed lines of sight and encourage organic monitoring.<sup>[38]</sup> CCTV and adequate illumination are the two most significant components of surveillance. Talking about robberies and theft, in a study done by Irina Matijosaitiene, it is suggested that proximity of motor vehicles to featureless walls and overgrown vegetation should be avoided. CPTED suggests utilizing street art on blind walls to deter or minimize crime, enhance aesthetics and generate a sense of vigilant community presence.<sup>[39]</sup> Designing natural barriers helps to create boundaries (e.g., with pavement textures) without the need for gates.<sup>[38]</sup> This can prevent pedestrians from getting into fatal accidents. Plants, hedges, low walls, and other landscaping conventions to form visual barriers between spaces with distinct purposes can reduce trespassing, break ins etc.<sup>[40]</sup> A study conducted by Casteel and Peek-Asa (2000) through meta-analysis demonstrated that the incorporation of design elements based on CPTED principles led to a notable reduction in instances of robbery within retail environments and other frequently visited public spaces.<sup>[41]</sup>

The high percentage of crimes directly linked to environmental factors underscores the need for a comprehensive approach to urban design that prioritizes safety and security. By addressing deficiencies in natural surveillance, access control, territorial reinforcement, and maintenance, city planners, architects, and policymakers can collaboratively create environments that discourage criminal activities.

The implications of this study are not limited to New Delhi; they extend to urban areas worldwide grappling with crime issues. By adopting CPTED principles, authorities can proactively influence the behaviors of potential offenders and residents alike, thereby fostering safer and more resilient communities. It is also a useful planning tool to assist in the development of urban sustainability<sup>[42]</sup>. As cities continue to evolve, embracing CPTED principles remains a pivotal strategy to promote a harmonious coexistence between the built environment and the well-being of its inhabitants.

## Conclusion

The study set out to find out the possibility of preventing various crimes that have occurred in the national capital of India, i.e., New Delhi using crime records and categorizing the crime events into the four categories of CPTED prevention principles. 9% of the crimes could not be deterred using CPTED principles, while 91% of the crimes could be deterred using CPTED principles. It is very interesting to note that out of the 91% crimes that could be deterred using CPTED principles, 44% of the ones, could only be deterred using natural surveillance principles. This clearly means that CPTED principles may need to be implemented in the design and commission of all public places, especially through the legal and design based frameworks. This includes inclusion of principles in the master plans of cities and buildings by laws of various municipalities. This also means that architects, planners, engineers and facility managers must be sensitized towards the principles, use and implementation of Crime prevention through environmental design.

## Limitations and Future scope

### Limitations

- Data Source and Bias: Relying solely on news websites for criminal activity records might introduce bias, as news coverage tends to focus on sensational incidents and

might not represent the entire spectrum of crimes in public spaces. There may also be need to gauge the degree and number of unreported incidents, or incidents reported in crime database but not reported in news.

- Causality and Correlation: While the study identifies a correlation between the built environment and criminal incidents, establishing a direct causal relationship requires more in-depth analysis, as other factors could also contribute to crime.
- Temporal Scope: The study covers incidents from 2017 to 2023, but crime patterns can change over time due to various socio-economic, political, and cultural factors. A longer time frame or periodic updates would provide a more comprehensive understanding.
- Generalizability: The findings are specific to New Delhi and might not be directly applicable to other cities or regions due to variations in urban planning, demographics, and crime dynamics.
- Quantitative vs. Qualitative Analysis: The study seems to be more quantitative, based on categorization of incidents. Incorporating qualitative analysis through interviews, surveys, or observational studies could provide richer insights into the perceptions of crime and safety among residents.
- Subjective interpretation: While categorizing criminal records under 4 CPTED principles, it can be noted that certain records could be placed in multiple categories by different readers; making a case for objective itemization of records.

### Future Scope

- Comparative Studies: Comparison of New Delhi's crime patterns with other cities, both within India and internationally, to understand similarities and differences in the impact of the built environment on crime can be undertaken.
- Longitudinal Studies: Longitudinal studies to track changes in crime patterns and urban design interventions over a more extended period, allowing for more robust conclusions about causality will give a more comprehensive picture.
- Perception vs. Reality: People's perception of safety might differ from the actual crime statistics and could influence their behaviors. Exploring the gap between perceived and actual safety in public spaces can be an independent study
- Socio-Economic Factors: Investigating the interplay between socio-economic factors and crime is imperative as poverty, inequality, and unemployment can also contribute to crime rates.
- Technological Integration: Examining how modern technologies such as smart surveillance, data analytics, and urban planning software could enhance the implementation of CPTED principles will make the research more comprehensive and richer
- Community Engagement: Involving local communities, urban planners, architects, and law enforcement agencies in the design and implementation of CPTED interventions to ensure a holistic approach
- Policy Recommendations: Developing actionable policy recommendations based on the findings to guide urban development and crime prevention initiatives in New Delhi is the most important next step.
- Possibility of coming up with new CPTED principles: The concept of CPTED originated in the west. In the future, we can extend this research and come up with CPTED principles truly and fully applicable in the Indian context, making it more geographically and culturally suitable.
- Evaluation of Interventions: If CPTED principles are integrated, conducting follow-up studies to evaluate their effectiveness in reducing crime and improving the safety of public spaces is also significant.

By addressing these limitations and pursuing the suggested future scopes, future research can contribute even more effectively to the field of crime prevention, urban design, and public safety.

## Appendix

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
1	01-Jan-23	Khanjanwala	A suburb; road incident	Hit and Run	12:00 AM- 1:00 AM	Woman hit by a car, then dragged under the wheels for 13 kms	Desolate stretches of roads and sprawling neighborhoods makes it easy for criminals to operate with impunity	Road was dimly lit on a foggy winter night, covered in potholes, with no CCTV cameras and police chowkis around	Natural Surveillance	Newspaper articles	<a href="https://www.">https://www.</a>
2	24-Jun-23	Pragati Maidan	1.5 km Tunnel	Armed robbery	3:00 PM	A delivery agent and his associate were robbed at gunpoint of Rs 1.5 to Rs 2 lakh cash by a group of unknown assailants	Dark alleys, tunnels and blind spots, especially at evening hours, become a safe haven for criminals to operate	Over 350 CCTV cameras had to be scanned in order to identify the assailants, reflecting the lack of better and faster AI tools. Lack of patrol vehicles, barricading etc. is also seen	Natural Surveillance	News website	<a href="https://bharat.">https://bharat.</a>
3	27-Jun-23	Kashmiri Gate	Yudhishtir Setu flyover	Robbery	daylight	A business was robbed of 4 lakh rupees in a broad daylight heist	Frequent incidents have led to the "normalization" of more such episodes	3rd robbery in a 10 day stretch	Maintenance	News website	<a href="https://www.">https://www.</a>
4	29-May-23	Shahbad Dairy	Road incident	Planned, premediated murder	8:45 PM	A 16-YEAR-OLD girl was stabbed multiple times and then bludgeoned to death allegedly by her 20-year-old boyfriend in full view of bystanders and pedestrians	A daylight, public murder becoming a usual sight on the streets of Delhi is not just problematic but plain scary for its citizens	Although the CCTV time stamp shows 8.45 pm, the police said there was a delay of 25-30 minutes in reporting the crime. No bystanders made a PCR call as well		News website	<a href="https://www.">https://www.</a> <a href="https://www.">sa</a>
5	18-Jun-23	Aryabhata College on Benito Juarez Marg in south-west Delhi.	Road incident; outside college gate	Murder	daylight	A first-year college student was stabbed to death on Sunday outside Aryabhata College on the South Campus after he objected to his girlfriend being harassed by another student	A daylight, public murder becoming a usual sight on the streets of Delhi is not just problematic but plain scary for its citizens	"A total of five persons cornered Nikhil around 300 meters from the gates of Aryabhata College... stabbed him in the chest... Passersby did not help and it was only after one of his batchmates called PCR that we were alerted about the incident."	Natural Access Control	News website	<a href="https://www.">https://www.</a>
6	19-Jun-23	RK Puram	Infront of their house	Murder	Late night	Two sisters were shot dead in Delhi, allegedly trying to protect their brother from a group of men in a monetary dispute	Dark spot, no patrolling vehicle, no CCTV. Eyewitnesses said the attackers managed to escape through multiple lanes	Around 3.20am on Sunday, 8-10 men, armed with rods and sticks, landed outside the house. The family alleged that the victim first called the police but there was no response, an allegation the police refuted.	Natural Surveillance	News website	<a href="https://www.">https://www.</a>



S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
7	06-Jun-23	JNU Campus	JNU North Gate	abduction, molestation	Late night	Four men tried to abduct two women students, molested them, and then assaulted a male student near the university's North Gate	There are no CCTVs near the two spots where the alleged crimes took place," said an officer. Police call was made around 1 am, nearly one and a half hours after the car-borne men allegedly molested the two students and attempted to abduct them	Anagha Pradeep, a member of JNUSU, said, "The campus has become unsafe for female students. Last night's incidents are not just examples of a security lapse but also highlight that security personnel are not equipped to deal with such issues.	Natural Surveillance	News website	<a href="https://www.student-assa">https://www.student-assa</a>
8	18-Jun-23	East Delhi	Mandawali railway under-bridge near Preet Vihar	Planned, premeditated murder	Broad daylight	72-year-old woman was stabbed to death in broad daylight in east Delhi's Mandawali,	Assailants overtook her two-wheeler and parked it near the under-bridge. As she reached the under-bridge, they intercepted her and stabbed her multiple times before fleeing	Neglected and poorly maintained properties like under-bridge areas, which are also dark and have no CCTV coverage, are breeding grounds for criminal activity	Maintenance	News Website	<a href="https://www.in-delhi-po">https://www.in-delhi-po</a>
9	27-Jun-23	Shahbad Dairy	Public Park	Gang Rape	Evening hours	The victim was in the park with her friend when a few boys raped her and fled	A minor girl, in the park, at night	Tall bushy grass, abandoned gazebo, dark, unchecked spots are breeding grounds for criminal activity	Natural Surveillance	News website	<a href="https://timesfrom=mdr&amp;ut">https://timesfrom=mdr&amp;ut</a>
10	08-Jun-23	Burari, North Delhi	Isolated Road	Rape	7:30 PM	A 13-year-old girl was allegedly raped inside a three-wheeler loading vehicle at an isolated place in north Delhi's Burari area	The victim was out for a walk with a friend in the neighborhood near her home at 7:30 pm. Auto driver took her to a remote place and raped her inside his vehicle	Remote, isolated places in the capital city of India are unacceptable and add to the list of safe havens for criminal activity	Natural Surveillance	News website	<a href="https://timesi">https://timesi</a>
11	18-Mar-23	East Delhi	School	Gang Rape	Afternoon	A student of an MCD school in East Delhi was allegedly kidnapped, sedated and raped by a group of four men, including the school peon		Nuisance, if allowed to exist, will lead to others and ultimately to the decline of an entire neighborhood. Such cases have happened time and again, leading to reoccurrence	Maintenance	News website	<a href="https://india">https://india</a>
12	29-May-23	ITO	Metro station	Snatching	Late night	2 men on a bike snatched a woman's phone on a dark stretch of a road	"I was lucky... they sped away after snatching my iPhone. It was so dark I couldn't even see the vehicle's registration number," said the 27-year-old	ITO is supposed to be an important spot of the capital city but still invites criminal activities to the	Natural Surveillance	News website	<a href="https://www">https://www</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
							government employee.	environmental design			
13	16-May-23	Mukherjee Nagar	Road incident	Snatching	Late night	3 men on a bike snatched a woman's belongings	"Three persons attacked me and took away my iPhone and purse containing Rs 20,000, a debit card and important documents. There was no PCR van or patrolling bike. The road was completely isolated," said the 32-year-old homemaker.		Natural Surveillance	News website	<a href="https://www">https://www</a>
14	20-Jun-23	South extension	road incident	Alleged kidnapping	1:00 AM	Woman crying out for help triggers late-night car chase in the heart of Delhi	"A camera showed a car, at the spot around 12.35am. Its front door was open and it appeared that a woman was calling out for help," said police officer. The CCTV, however, had failed to capture the car's number plate		Natural Surveillance	News website	<a href="https://www">https://www</a> <a href="https://www">after-woman</a>
15	01-Jun-23	Khadda Colony area, Kalindi Kunj	Road/Colony	Stabbing/Murder	6:45 PM	An internal scuffle broke out between some youth, including minors, while playing street games. Enraged with the fight, the accused attacked the victim when he saw the victim on the next day	A daylight, public murder becoming a usual sight on the streets of Delhi is not just problematic but plain scary for its citizens			News website	<a href="https://www">https://www</a>
16	04-Jan-23	Adarsh Nagar	Narrow/dark alley	Stabbing/Murder	12:00 PM	A 22-year-old youth stabbed a girl in the Adarsh Nagar area	CCTV footage clearly shows a narrow alle with no view or connection from the main road, a perfect area for crimes to happen	Neglected and poorly maintained properties are breeding grounds for criminal activity	Maintenance	News website	<a href="https://ne">https://ne</a> <a href="https://ne">stabbing-;</a>
17	06-Jan-23	West Delhi	HMP Park	Stabbing/Murder		A man has been arrested and two juveniles have been apprehended in connection with the killing of a 15-year-old boy who was allegedly stabbed to death following a minor argument		Neglected and poorly maintained properties are breeding grounds for criminal activity	Maintenance	News website	<a href="https://www.o">https://www.o</a>
18	15-May-23	New Delhi	Outside the victim's shop	Murder	8:52 PM	A shop owner died and two others were injured after a				News website	<a href="https://indi">https://indi</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						group of men allegedly attacked them with bricks and knives. Police said the deceased had allegedly objected to a fight and was later killed in an attack.					
19	27-Aug-22	Sangam Vihar, South Delhi	2 km away from her school	Stalking/harassment/attempt to murder	2:45 PM	A 16-year-old girl was shot at while returning from school in South Delhi's Sangam Vihar area by her alleged social media stalker.	He kept following her despite getting warnings from the beat constable of the area.	Isolated roads with no police personnel or digital surveillance methods create way for opportunistic crime	Natural Surveillance	News website	<a href="https://thehindu.com/news/national/delhi-police-arrests-suspect-in-shooting-of-girl/article17844444.ece">https://thehindu.com/news/national/delhi-police-arrests-suspect-in-shooting-of-girl/article17844444.ece</a>
20	25-May-23	Northeast Delhi	Welcome flyover	Road accident/crash	12:30 AM	Two helpers of a truck were killed and four people got injured after another truck hit the stationary vehicle	"In his complaint, one of the injured, Doje Singh, 42, of Loni, said that he worked as a laborer. He said that around 12.30am, the tyre of the truck he was riding in suddenly burst while the vehicle was on the flyover. The complainant was opening the tyre bolts when another truck hit their vehicle from behind," DCP said	A few internet searches and it was found that the area around Welcome metro station and the flyover is dim, poorly lit, and the victims had to change the tyre on a flyover, with no safe place nearby, like a pavement, walkway or proper lighting	Natural Access Control	News website	<a href="https://www.speedingnews.com/news/road-accident-on-flyover-northeast-delhi-25-may-2023">https://www.speedingnews.com/news/road-accident-on-flyover-northeast-delhi-25-may-2023</a>
21	25-May-23	Kashmere Gate, North Delhi	Pavement near Nigambodh Ghat	Road accident/crash	2:55 AM	A vagabond died on Thursday after he ran over by an unidentified vehicle in north Delhi Kashmere Gate area		The vehicle driver might not have been able to see a man sleeping on the pavement. There are also hardly any radium lights to tell the streets from the pavement	Natural Access Control/Territorial reinforcement	News website	<a href="https://www.speedingnews.com/news/road-accident-on-pavement-north-delhi-25-may-2023">https://www.speedingnews.com/news/road-accident-on-pavement-north-delhi-25-may-2023</a>
22	01-Apr-21	Kashmere Gate, North Delhi	Pavement	Road accident/crash	4:00 AM	A 35-year-old homeless man and a civil defense volunteer were killed, and two other homeless men seriously injured, after a mini truck, which was allegedly speeding, first hit a scooter and then ran onto a pavement where the homeless people were sleeping	"A mini truck had ran onto the pavement and injured three homeless people sleeping there, after first hitting a man on a scooter. One of the homeless men died on the spot."	There are 30 shelter homes in a two-kilometer radius between Geeta Ghat and Gandhi Park for the homeless. "Despite the caretakers of these homes asking people to sleep inside, some sleep on the pavements to escape the heat	Territorial reinforcement	News Website	<a href="https://www.bhaskar.com/article/DELHI-35-year-old-homeless-man-dies-after-run-over-by-mini-truck-16474444.html">https://www.bhaskar.com/article/DELHI-35-year-old-homeless-man-dies-after-run-over-by-mini-truck-16474444.html</a>
23	02-Oct-22	Sunder Nagar	Narrow dark alley	Murder/Stabbing	7:40 PM	A 25 year old youth was	The CCTV footage clearly		Maintenance	News Website	<a href="https://timesofindia.com">https://timesofindia.com</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						stabbed to death in Sunder Nagri area of Delhi	shows that the alley looks like an abandoned dump yard with old furniture and trash lying on the street. It shows that the area was neglected and poorly maintained				
24	31-Aug-22	Jasola Vihar	Inside the house	Rape	Unknown	A neighbor entered the house of the victim while she was asleep and raped her.		Trespassing due to unclear public and private property distinguishing can lead to criminal activity	Territorial reinforcement	News website	<a href="https://www">https://www</a>
25	Late August	Naraina	Inside the house	Rape	Midnight	A girl was allegedly raped in Delhi's Naraina neighborhood. The suspect broke into the house and allegedly raped the girl. He also filmed a video of the incident and threatened to kill her if she informed anyone about the incident.		Trespassing due to unclear public and private property distinguishing can lead to criminal activity	Territorial reinforcement	News website	<a href="https://www">https://www</a>
26	04-Aug-22	Yamuna Khadar Forest	Slum/Forest area	Abduction, rape, murder	Midnight	A man was arrested in Delhi for kidnapping, raping and murdering an eight-year-old	Slum dwellings do not create a "sphere of influence" therefore, their is no sense of proprietorship among the residents, making it easy to trespass/ break in. Forested areas are unkempt, abandoned, not lit and hence are breeding grounds for criminal activities	The man – a butcher – also confessed to have slit her throat and mutilated the minor's face and hid her body in the forest area of Yamuna Khadar in Central Delhi.	All 4 CPTED principles	News website	<a href="https://www.mutlat">https://www.mutlat</a>
27	09-Aug-22	New Delhi Railway station	Tilak Bridge, bushy area	Gang Rape	Midnight	Two hawkers have been arrested for allegedly raping a 17-year-old girl near Tilak Bridge in New Delhi, police said. The two accused, on the pretext of boarding the girl on a train, took her to an isolated place and raped her.	According to police, the incident took place near bushes along the railway tracks near Tilak Bridge in the wee hours	Neglected and poorly maintained properties are breeding grounds for criminal activity	Maintenance	News website	<a href="https://www.i">https://www.i</a>
28	23-Jul-22	New Delhi Railway station	Hut	Gang Rape	Midnight	A 30-year-old woman was gang-raped by two railway employees in a train lighting		The woman was wrongfully confined in a hut. Proper landscaping	Natural Access Control	News website	<a href="https://www">https://www</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						hut meant for railway electrical maintenance staff while two others guarded the room at New Delhi railway station premises in the wee hours		and signage could have prevented her from going in that area			
29	06-Jul-22	Vasant Vihar	Inside a moving car/secluded spot	Gang Rape	Late night	A 16-year-old girl was kidnapped from near her home and then gang-raped inside a car in Delhi	The accused men raped her and also beat her up after parking the car at a secluded spot.	No one spotted a moving car where a girl was being raped and easy access to "secluded spots" also adds to the problem	Natural Surveillance	News website	<a href="https://www.i">https://www.i</a>
30	Jul-22	KVS, Delhi	School washroom	Gang Rape of minor by minors	School hours	An 11-year-old girl was allegedly gang-raped by two senior students of the same school in Delhi who were later expelled by the authorities but the crime was not reported to the police for about three months	In July, when the girl was going to her classroom, she ran into with two boys of the same school. She apologized to the boys but they forcibly took her inside a toilet. The accused then locked the door from inside and allegedly raped her	The matter was allegedly hushed up and was not even reported to the police	Maintenance	News website	<a href="https://www.r">https://www.r</a>
31	18-Sep-22	Seelampur	Slum area	Gang rape/assault on minor boy by minor boys	Unknown	A 10-year-old boy was allegedly sodomised by three boys, aged between 10 and 12, in north-east Delhi's Seemapuri	Minor boys aged 10-12 years are sodomising other boys/girls is terrifying for us as a society. A source said that the victim and the accused reside in the same locality and were acquainted with the minor.	Slum areas where there is poor territoriality, dim lighting, no CCTV surveillance etc. chances of getting an opportunity to carry out an activity of this sort becomes easier	Natural Surveillance	News website	<a href="https://www.i">https://www.i</a>
32	26-Sep-22	Mandoli Jail	Jail premises	Attempt to rape and murder	Unknown	Prisoner attempts rape, tries to kill female doctor in Delhi's Mandoli Jail		The accused, who was imprisoned in two cases of crime against women, attempted to rape a female doctor who visited the jail.		News website	<a href="https://www">https://www</a>
33	28-Nov-22	Vasant Vihar	On the road	Road accident/crash	Morning hours	A 50-year-old man died after his cycle was hit by a BMW car on the Delhi-Gurgaon Expressway in the Vasant Kunj area on Sunday	Driver of the car said that the car's tyres burst because of which he lost control.	There could be many reasons for the bursting of car's tyres like roads covered in potholes, broken speed breakers, etc.	Territorial reinforcement	News website	<a href="https://www.g">https://www.g</a>
34	01-Jan-22	Dwarka	DDA park	Rape	Evening hours	The Delhi Police has arrested a 38-year-old retired Army subedar for allegedly	The woman and her friend were sitting inside a DDA park when the accused approached them wearing a	A team was sent to collect CCTV footage from cameras near the spot, and they spotted the	Natural Surveillance	News website	<a href="https://india">https://india</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						posing as a policeman and raping a 19-year-old woman at a park	khaki uniform and threatened to charge them, saying they were indulging in obscenity. On the pretext to collecting a hefty fine, he assaulted both and rapes the woman.	accused in an Ertiga car. But the quality of the footage wasn't good enough to read the registration number. Footage from other CCTVs on the route was either overwritten or lost			
35	Sep-19	Sarai Kale Khan	Indraprastha Park	Gang rape	Late night	A woman in her 20s was found in a semi-conscious state inside a park in Delhi. Police officials said that the woman was gang-raped and left for dead by the assailants	Locals alerted the police about a girl lying in the bushes at the Indraprastha Park. Further inquiry revealed that the girl had been living at the Sarai Kale Khan bus stand for the past few days and had gone for a stroll in the park when she was attacked. Two unidentified men spotted her alone and pulled her behind the bushes where they took turns raping her.	The incident has raised serious questions about the safety of citizens in Delhi's public parks. Bushy, unkempt and unlit public areas are safe havens for criminal activity	Maintenance	News website	<a href="https://www.wwr">https://www.wwr</a>
36	Jul-19	Kapashera area near Delhi border	Park	Gang Rape of minor by minors	Evening hours	A five-year-old girl was gang-raped by two boys in a park. The accused are minors too and have been sent to a juvenile correction center.		Public parks meant for children are not at all safe because of lack of any surveillance	Natural Surveillance	News website	<a href="https://www.tj">https://www.tj</a>
37	Apr-19	Lajpat Nagar Metro Station	Park	Rape of elderly	Late night	A senior citizen was raped by a 30-year-old man in the national capital. The alleged incident took place near the Lajpat Nagar metro station in Southeast Delhi. The victim is 61-years-old		The accused told the police that he was under the influence of alcohol when he had gone to the park where the incident took place. The accused allegedly dragged the victim to a bench and raped her. The accused escaped easily owing to the fact that the park was not well-lit.	Natural Surveillance	News website	<a href="https://www.rapes-">https://www.rapes-</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
38	11-Jul-17	Kamala Market	Public Park	Rape	Evening hours	A man raped an eight-year-old girl on Saturday in a public park in central Delhi's Kamla Market while his own teenage daughter was playing a few meters away	He was out at a local park with his daughter who was playing with her friends. "In between, he lured an eight-year-old girl to an unused open gym nearby and began sexually abusing her using his fingers," said a police investigator.	An unused open gym at a park gave the accused an opportunity to carry out the crime	Maintenance	News website	<a href="https://www">https://www</a>
39	25-Aug-20	Rajouri Garden	Public Park	Rape	12:30 PM	A 42-year-old man was arrested for allegedly sexually assaulting a 12-year-old girl and photographing her on his mobile phone at a public park in west Delhi's Rajouri Garden.	He was caught from the park. His mobile phone was seized and examined. Objectionable images of the girl were found on the phone	Isolated parks, abandoned swings and bushy unkempt areas promote criminal activity	Natural Surveillance/Maintenance	News website	<a href="https://ww">https://ww</a>
40	28-Dec-22	Sagarpur	Kamal Park	Rape	8:00 PM	Delhi Police on Monday arrested a 50-year-old man for allegedly raping a 13-year-old girl on Sunday night, when she was returning home after Christmas celebrations at a church in Kamal Park of southwest Delhi's Sagarpur		The girl's mother lodged at Sagarpur police station on Monday, the man allegedly raped her at an isolated area in a park.	Natural Surveillance	News website	<a href="https://www.south-y">https://www.south-y</a>
41	Mar-17	Hauz Khas	Deer Park	Rape	2:30 AM	A man allegedly raped a 24-year-old student from a northeastern state at south Delhi's deer park when she was returning home with a cousin after dinner at a restaurant in Hauz Khas Village.		An abandoned, dry lake with no surveillance around invited the opportunity for this crime	Maintenance	News website	<a href="https://wv">https://wv</a>
42	09-Jan-23	Anand Vihar, East Delhi	Park	Gang rape, assault, wrongful confinement	Late night	A 16-year-old homeless girl was gang raped and assaulted by at least two people in east Delhi	The girl was with a friend near the Anand Vihar Metro station. The person took her to an isolated place near Anand Vihar Park, where his friend was already present. The girl was gang raped, and was assaulted when she tried	Homelessness meant there was no territorial reinforcement or sphere of influence. Other than that public parks are unlit and abandoned at night	Territorial reinforcement/Natural Surveillance	News website	<a href="https://www.l">https://www.l</a>



S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
							to resist. They also threatened her of dire consequences if she told anyone about the incident.				
43	Jan-17	South Delhi	Green Park Flat	Gang Rape	Post Midnight	A 21-year-old Jawaharlal Nehru University (JNU) student was allegedly drugged and gang-raped by two Afghan men at their flat in south Delhi's Green Park				News website	<a href="https://www.i">https://www.i</a>
44	26-Jan-22	Vivek Vihar	Public park	Gang rape	daylight	The Delhi Police has arrested four accused after a woman was allegedly kidnapped, gang-raped and assaulted in the Vivek Vihar area of the national capital on Republic Day.	The woman's hair was chopped, she was garlanded with shoes and made to walk the streets by the accused as the locals cheered on.			News website	<a href="https://www">https://www</a>
45	24-Jan-22	Shastri Park	Unknown	Gang Rape of minor by minors	2:00PM	In a horrific incident, an 8-year-old girl was allegedly raped by two minors in the Shastri Park area of Delhi	During the enquiry, it was found that the incident happened at around 2 PM, when the victim was playing outside her house and she was lured by one of the accused, aged 12 years, who used to live in the same locality. He, along with his friend, then raped the girl		Natural Access Control/Territorial reinforcement	News website	<a href="https://www.i">https://www.i</a>
46	Aug-19	South Delhi	Inside a cab	Rape	Evening hours	A JNU second-year student was allegedly drugged and raped by a cab driver while she was returning from her friend's house		Driver of the cab must have found an isolated place with no surveillance to rape a woman and the	Natural Surveillance	News website	<a href="https://www.i">https://www.i</a>
47	Jul-23	Shastri Park area	Bela Farm near Yamuna River	Murder/Revenge	Unknown	Two persons, including a woman, were arrested for allegedly killing a 20-year-old man. According to the police, the woman alleged that the man had raped her on several occasions and in order to take revenge, she killed him.	She took the victim to a spot near Bela Farm to watch the overflowing Yamuna river and with the help of a male friend overpowered him and stabbed him to death there	Abandoned farm area near a river with no surveillance, sphere of influence or access control	All 4 CPTED principles	News website	<a href="https://www">https://www</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
48	Sep-20	Shahbad Dairy	Farm	Rape	Morning hours	The police have arrested a man in his 30s for the rape and assault of an 86-year-old grandmother	The woman was waiting outside her home on Monday evening for the milkman when she was approached by her attacker. He told her that her regular milk delivery man wasn't coming and offered to take her to the place where she could get milk. He took her to a nearby farm where he raped her.	Easily accessible, empty farm with no natural surveillance	Natural Surveillance	News website	
49	Jan-18	Madhu Vihar	Public Park	Gang rape	Unknown	A 15-year-old intellectually disabled girl was gang raped by six men, including her neighbor			Natural Surveillance	News website	<a href="https://www.zeenews24.com/article/view/531111">https://www.zeenews24.com/article/view/531111</a>
50	06-Oct-22	Kalka Public School	School washroom	Gang rape	daylight	The incident of gang-rape of an 11-year-old girl student in Delhi's Kendriya Vidyalaya had shocked everyone. Two senior students of the school were accused of raping a girl student.		Similar crimes have happened, promoting further crimes to happen.	Maintenance	News website	<a href="https://thenati.com/news/2022/10/06/11-year-old-girl-raped-in-delhi-school-washroom/">https://thenati.com/news/2022/10/06/11-year-old-girl-raped-in-delhi-school-washroom/</a>
51	28-Jan-20	Jahangirpuri	Park	Culpable homicide	Post Midnight	Hours after hitting his wife with a hammer, 37-year-old man allegedly committed suicide by hanging himself from a tree at a public park near their home	The man, an e-rickshaw driver attacked his wife in front of her three children following an argument.	If no one could hear or see the couple having a long argument and the attack that followed it, it must be a very isolated and unlit park	Natural Surveillance	News website	<a href="https://www.jindanews.com/news/2020/01/28/37-year-old-man-hangs-self-from-tree-in-jahangirpuri-park-after-attacking-wife/">https://www.jindanews.com/news/2020/01/28/37-year-old-man-hangs-self-from-tree-in-jahangirpuri-park-after-attacking-wife/</a>
52	08-Jun-23	Maujpur	House	Break in/ robbery/murder	Late night	A 70-year-old woman was killed while her husband and their tenant were injured by a group of armed robbers, who entered their house and robbed them	5-6 persons had entered a house at street no-5 in Maujpur's Ambedkar Basti and robbed the residents of the house	Trespassing due to unclear public and private property distinguishing can lead to criminal activity	Territorial reinforcement	News website	<a href="https://www.injured-by-arrest.com/news/2023/06/08/70-year-old-woman-killed-in-maujpur-robbery-murder/">https://www.injured-by-arrest.com/news/2023/06/08/70-year-old-woman-killed-in-maujpur-robbery-murder/</a>
53	2008-15	New Delhi	Multiple places	Rape/ Murder/Serial Killing	Late night	Ravindra Kumar, aged 32, committed a series of heinous crimes between 2008 and 2015, involving the sexual assault and murder of	The lack of effective tracking and early intervention mechanisms allowed him to continue his crimes for several years, highlighting	His transient movement between areas and his history of drug addiction added to the challenges of apprehending him. By targeting	All 4 CPTED principles	News website	<a href="https://www.life-term-by.com/news/2023/06/08/70-year-old-woman-killed-in-maujpur-robbery-murder/">https://www.life-term-by.com/news/2023/06/08/70-year-old-woman-killed-in-maujpur-robbery-murder/</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						over 30 children. He targeted kids under 14 years, mostly from impoverished areas in Delhi	the vulnerabilities in safeguarding children from such predators.	areas with poor lighting, abandoned buildings, and isolated locations, the criminal exploited the lack of natural surveillance to carry out his crimes discreetly.			
54	Jun-23	Bharat Vihar, Dwarka	Road	Road accident/crash	Late night	A tragic road accident occurred in Delhi's Dwarka area, resulting in the deaths of three individuals and injuring another. An SUV collided with a motorbike carrying the victims, who were traveling from Bharat Vihar towards Sector 17, leading to the fatal collision.	The incident highlights the pressing issue of road safety and reckless driving in urban areas. Insufficient adherence to traffic rules, high speeds, and lack of proper road infrastructure contribute to such accidents, leading to loss of lives and severe injuries.	By managing the flow of vehicles and ensuring proper road design, authorities can minimize the likelihood of accidents. Properly designed intersections, speed limits, and traffic calming measures contribute to safer roads and reduced chances of collisions.	Natural access control	News website	<a href="https://www.">https://www.</a>
55	Jul-23	Madipur Metro station	Road	Road accident/crash	daylight	A tragic incident occurred on Rohtak Road in Delhi, where a Delhi Police inspector lost his life after his stationary car, which had stopped due to a mechanical issue, was struck by a speeding truck from behind near the Madipur metro station. The truck driver fled the scene after the collision.	This incident highlights the dangers of road safety and the risk faced by individuals on the road, even when their vehicles are stationary due to mechanical issues. Reckless driving and failure to follow traffic rules pose serious threats to both motorists and pedestrians.	Improved lighting and visibility in the area can deter speeding and reckless driving, making it easier for drivers to notice stationary vehicles ahead and take appropriate precautions. Additionally, proper road signage and enforcement measures can enhance road safety for all.	Natural Surveillance	News website	<a href="https://www.">https://www.</a>
56		Civil Lines	Traffic signal	Road accident/crash	Morning hours	a 22-year-old woman lost her life and another individual was injured after a truck collided into their car. The collision occurred at a traffic signal, as a Maruti car had stopped behind a truck, and another truck hit the car from behind, resulting in severe damage.		Proper road design, signage, and effective traffic management at intersections can prevent accidents like these. Creating safe spaces for vehicles to stop and wait at traffic signals can reduce the risk of collisions from behind.	Natural access control	News website	<a href="https://www.">https://www.</a>
57	May-23	Kasturba Gandhi Marg	Road	Road accident/crash	Evening hours	A motorcycle collided with a car at high speed. The	The absence of helmets, failure to stop after the initial collision,	Adequate monitoring through surveillance	Natural surveillance	News website	<a href="https://www.">https://www.</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						two riders, not wearing helmets, were thrown into the air. Subsequently, an SUV with one of the injured men on its roof fled the scene, traveling through Delhi's VIP zone for about three kilometers amidst attempts by other vehicles to stop it.	and disregard for the injured man's safety highlight the urgent need for responsible driving behavior and proper enforcement of road safety measures.	cameras and vigilant witnesses can assist law enforcement in identifying and apprehending individuals involved in hit-and-run incidents. Additionally, improving road safety awareness and ensuring helmet usage can contribute to minimizing injuries in accidents.			
58	Jul-23	Kashmere Gate, North Delhi	Road	Road accident/crash	Late night	A speeding SUV collided with the victim's car, resulting in a fatality. The victim was the wife of a Congress party member. The SUV's driver fled the scene after the collision.		Designing roads that naturally guide traffic flow can reduce road crashes like such	Natural access control	News website	<a href="https://www.w">https://www.w</a>
59	Jul-23	Loni roundabout in northeast Delhi	Road	Road accident/crash	Post Midnight	A Maruti Suzuki Eco van carrying 11 passengers veered across the road divider, colliding with an oncoming cluster bus. The driver reportedly lost control while attempting to avoid a motorcyclist.	The incident highlights the potential dangers of road design and driver response when faced with unexpected obstacles, risking the safety of passengers and other road users	This accident underscores the need for road safety measures that account for sudden obstacles and driver reactions. Improved road design and driver training could mitigate such incidents in the future.	Natural access control	News website	<a href="https://www.kills-3-injures">https://www.kills-3-injures</a>
60	Jul-23	Inderlok	ATM	Robbery	Evening hours	Three men were apprehended by the Delhi Police for robbing Rs 51 lakh from a cash van transporting money to ATMs. The incident occurred in Delhi's Inderlok area, where the van's driver absconded with the cash on a motorcycle, leaving the custodians stranded.	CCTV footage clearly shows a narrow alley with no view or connection from the main road, a perfect area for crimes to happen	Strengthening access points, employing reliable personnel, and implementing better surveillance can prevent unauthorized access to valuable assets like cash vans.	Natural Surveillance	News website	<a href="https://www.">https://www.</a>
61	Jun-23	East Delhi	Road	Rape/Sodomy	Late night	a man was allegedly sexually assaulted by a restaurant owner and bouncers following a	This incident highlights the grave issue of sexual assault, misuse of power, and escalating	Creating safe and well-monitored territories, such as restaurants, can deter criminal	Territorial Reinforcement	News website	<a href="https://w.restaure">https://w.restaure</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						dispute over an inflated bill. The victim was then kidnapped in his car, taken to a different location, and subjected to further assaults, including rape, while a pornographic video was recorded	violence within public spaces.	behavior and provide a secure environment for patrons.			
62	2022	Narela	Isolated Road	Murder	Unknown	a 22-year-old man reportedly abducted an eight-year-old girl from his neighborhood. He then transported her to an isolated location, where he allegedly strangled and assaulted her, purportedly as an act of revenge against her brother.		By fostering an environment where residents can easily observe and supervise public spaces, it becomes more challenging for individuals to carry out such acts unnoticed.	Natural Surveillance	News website	<a href="https://www.">https://www.</a>
63	Jun-19	Barapullah	Flyover	Attempt to murder	1:00 AM	Unidentified individuals targeted a crew from a Hindi news channel in New Delhi, firing three shots at them on Barapullah Road.	The victims called the PCR at 1.33 am but it only arrived at 3.00 am.	improving emergency response times is crucial to ensuring the safety of citizens and media personnel alike. Ensuring that entry points to sensitive locations like police stations are secure and monitored can help deter potential attackers and create a safer environment.	Natural Access Control	News website	<a href="https://www.">https://www.</a>
64	Apr-23	Siraspur	Outside the victim's home	Murder	Late night	a 30-year-old pregnant woman named Ranju was shot and subsequently died after a confrontation with her neighbor. The confrontation arose when she objected to loud music being played during a function at the neighbor's house	Possession of a gun and public usage, along with no surveillance and potential trespassing made the crime happen	Creating or extending a "sphere of influence" by utilizing physical designs that enable users of an area to develop a sense of proprietorship over it is the goal of this CPTED principle	Territorial Reinforcement	News website	<a href="https://newsraj.">https://newsraj.</a>
65	2022	Mehrauli	Multiple places	Murder	Late night	A man killed his live in partner, cut her body in 35 pieces and		Abandoned forest areas, no surveillance	All 4 CPTED principles	News website	<a href="https://www.">https://www.</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						disposed the body parts in different forested locations over a period of 3 months					
66	Apr-18	Moolchand	Under the Flyover	Murder	Late night	A man was murdered by 2 other men under the Moolchand flyover due to some enmity		Areas under flyovers are usually extra dark and not under any surveillance making them safe havens for criminal activities	Natural surveillance	News website	<a href="https://www.the-run-for-">https://www.the-run-for-</a>
67	Feb-23	Najafgarh	Closed public space	Murder		The Delhi Police arrested a man for killing his girlfriend and stuffing her body in a refrigerator in outer Delhi's Mitraon village near Najafgarh	He had stuffed her body in a refrigerator at his eatery. The eatery had been shut because of his wedding functions	A closed place with no surveillance	Natural surveillance	News website	<a href="https://www.h">https://www.h</a>
68	2023	Dwarka	Public place	Murder	Unknown	the accused is alleged to have shot Yogesh and concealed the body within a suitcase. The body was later disposed of near a drain in Dwarka		No one could spot the man dumping a body in a drain, meaning that the place was dark and isolated	Natural Surveillance	News website	<a href="https://indianfrie">https://indianfrie</a>
69				Theft	Late night	A criminal gang adopts a specific modus operandi by entering Delhi during late night hours with a group of four to five members. They proceed to steal 4-5 vehicles in a single operation and then swiftly exit Delhi during the early morning hours.	This pattern highlights a sophisticated criminal operation that takes advantage of the cover of darkness and the limited surveillance during late-night and early-morning hours. The gang's efficiency in stealing multiple vehicles in a single attempt poses a significant challenge to law enforcement.	Enhancing visibility through better lighting, increased police presence, and community vigilance can deter criminal activities during nighttime hours.	Natural Surveillance	News website	<a href="https://wwmember-of-n">https://wwmember-of-n</a>
70	2023		Inside the house	Murder	Post Midnight	A distressing incident involves the arrest of a 24-year-old woman, Pooja Kumari, for allegedly murdering her boyfriend's minor son. The motivation behind the crime is reported to be her perception that the child was obstructing		CCTV footage showed the woman entering the house		News website	<a href="https://www.i-partn">https://www.i-partn</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						her relationship with her partner. Pooja is accused of strangling the minor while he slept, concealing the body inside a bed's storage box, and then fleeing the scene.					
71	2019	Rohini	Inside the car	Murder	daylight	a 62-year-old doctor allegedly shot and killed a 55-year-old woman in a car, later identified as a white Volkswagen Vento. Subsequently, the doctor used his licensed revolver to take his own life, resulting in two fatalities inside the vehicle.			Territorial Reinforcement	News website	<a href="https://www.i-dead-over-af">https://www.i-dead-over-af</a>
72	2017	Rohini	Public Park	Strangulation/Murder	Evening hours	A class 12 girl was strangled to death by an 18-year-old teenager after a scuffle between them near a public park. The two met while the girl was on her way to her tuitions and went to a nearby park before moving to a narrow lane where the fatal scuffle took place.	The incident raises concerns about the safety of public spaces and the need for conflict resolution mechanisms.	Ensuring that public spaces are well-lit and monitored can contribute to deterring potential altercations and violence.	Natural surveillance	News website	<a href="https://www.i">https://www.i</a>
73	Aug-17	East Delhi	Inside the house	Stabbing/Murder	Late night	A 36-year-old woman was fatally stabbed 25 times by her husband in front of their son.				News website	<a href="https://www.i">https://www.i</a>
74	2019	Rohini	On the road	Murder	Evening hours	A youth was severely wounded in a gang-related conflict in Rohini, where a group of four to five assailants shot at him multiple times. The attackers then exited their vehicle and continued firing recklessly. The attackers left the scene after the victim	This incident underscores the persistent issue of gang-related violence and the brazenness of attackers resorting to indiscriminate firing in public spaces.	Public shootings with no interception. A person is less likely to commit a crime if they think someone will see them do it. Lighting and landscape play an important role in CPTED.	Natural surveillance	News Website	<a href="https://www.i">https://www.i</a>



S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						collapsed on the road.					
75	2019	Rohini	On the road	Murder	Broad daylight	A 30-year-old man named Ravi Bhardwaj was fatally shot in broad daylight, just around a kilometer away from Rohini court in Delhi. The shooting was allegedly carried out by a notorious Delhi gangster and his associates. The victim was shot at least 15 times in the head, chest, and abdomen	This incident highlights the brazenness of criminal acts and the audacity with which gang-related violence can occur in public spaces.	Utilizing surveillance systems and promoting community vigilance can help in identifying and reporting suspicious activities linked to gang activities. "Broken Window Theory" suggests that one "broken window" or nuisance, if allowed to exist, will lead to others and ultimately to the decline of an entire neighborhood.	Natural Surveillance/Maintenance	News website	<a href="https://www.fired-on-de">https://www.fired-on-de</a>
76	2017	Dwarka	Near the metro station	Murder	Broad daylight	Two bike-borne assailants opened fire at a car in Dwarka Mor area. The people in the car returned fire, turning the suburban neighborhood into a war zone			Natural Surveillance/Maintenance	News website	<a href="https://www.fired-on-de">https://www.fired-on-de</a>
77	2017	Rohini	Public park	Rape	9.30 PM	minor girl accused an acquaintance of raping her in a park in Rohini's Begumpur area. The two had gone to the park around 9.30 pm on the motorcycle of the 22-year-old man		Public parks meant for children are not at all safe because of lack of any surveillance, Dark alleys and abandoned spaces also add to instances of opportunistic crime	Maintenance	News website	<a href="https://www.fired-on-de">https://www.fired-on-de</a>
78	2018	Amar Colony	Central Park	Attempt to rape	Evening hours	a 26-year-old advocate alleged that a laborer attempted to rape her inside a park. she was suddenly grabbed and pulled into the park by the assailant. Despite her efforts to defend herself and fight back, the man managed to hit her and escape by climbing over a wall.	This incident sheds light on the issue of public safety, particularly for women, and the vulnerability they may face in secluded areas. It highlights the importance of creating secure environments and addressing gender-based violence.	Designing parks and public areas in a way that allows for clear visibility and monitoring can help deter criminal activities.	Natural Access Control	News website	<a href="https://www.fired-on-de">https://www.fired-on-de</a>
79	2023	Kotla Mubarak Pur	Slum dwelling	Rape	Late night	A 44-year-old man was Saturday		Trespassing due to unclear public and	Territorial Reinforcement	News website	<a href="https://www.fired-on-de">https://www.fired-on-de</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						apprehended for allegedly sexually abusing his 17-year-old nephew		private property distinguishing can lead to criminal activity			
80	2023	Welcome, East Delhi	Street crime	Murder	11:30 PM	A 32-year-old man was killed and two others were injured as three robbers armed with knives attacked them separately in northeast Delhi's Welcome area			Natural surveillance	News website	<a href="https://www.">https://www.</a>
81	2023	Shastri Park	Near flyover	Road accident/crash	1:50 AM	A man installing a signboard on a pole was crushed to death after an SUV hit a stationary goods carrier vehicle from behind in northeast Delhi's Shastri Park area		the use of walkways, fences, lighting, signage and landscape to clearly guide people and vehicles to and from the proper entrances can reduce crime	Natural Access Control	News website	<a href="https://www.">https://www.</a>
82	2023	Bawana	Factory	Fire	10:56 PM	A blast occurred at a plastic factory located in the Bawana Industrial Area of north-west Delhi, resulting in injuries to five firemen	The incident underscores the necessity of ensuring proper safety measures in industrial areas to prevent such accidents.	Ensuring that industrial facilities are designed with safety measures and access controls in mind can help prevent accidents and protect personnel.	Natural Access Control	News website	<a href="https://www.">https://www.</a>
83	2023	Saket	Street crime	Snatching	Broad daylight	a woman teacher was injured after falling out of an auto-rickshaw and being dragged on the road by two motorcycle-borne men. The incident was an attempt to snatch her mobile phone.	This incident underscores the issue of street crime, particularly mobile phone snatching, and the vulnerability of individuals using public transportation. It highlights the challenges of ensuring personal safety in crowded urban areas.	Encouraging the presence of witnesses and CCTV cameras in public spaces can deter street crimes and provide evidence for investigations.	Natural Surveillance	News website	<a href="https://www.n">https://www.n</a>
84	2023	Naraina	School	Gas leak/Poisoning	Afternoon	28 students were hospitalized due to suspected inhalation of noxious fumes following a possible 'gas leak' incident nearby. Two of the students needed oxygen support due to the severity of their condition.	The incident emphasizes the importance of ensuring safe surroundings for educational institutions and prompt intervention in cases of environmental hazards. It also highlights the significance of having disaster preparedness plans in place to handle such situations.	Proper maintenance of surrounding areas and regular safety checks can contribute to preventing incidents like gas leaks from affecting schools and other public spaces.	Maintenance	News website	<a href="https://www.">https://www.</a>



S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
						was aware of the victim's daily routine, knowing that she crossed the park					
91	2023	Dabri	Near victim's house	Murder	Unknown	A 42-year-old woman was allegedly shot dead near her house in southwest Delhi's Dabri area			Natural Surveillance	News website	<a href="https://www.">https://www.</a>
92	2023	Karol Bagh	Outside his shop	Murder	10:45 PM	A gold supplier was stabbed to death allegedly by four people, including his employees			Natural Surveillance	News website	<a href="https://www.">https://www.</a>
93	2023	Punjabi Bagh	Isolated building	Collapse of building	1:00 PM	A 30-year-old woman and her minor son were killed after a portion of a building collapsed in west Delhi's Punjabi Bagh		Preliminary inquiries revealed that the building was abandoned and weak. negligent conduct with respect to pulling down or repairing buildings led to the incident	Maintenance	News website	<a href="https://www.">https://www.</a>
94	2023	Jahangirpuri	Street crime	Murder	Late night	a 48-year-old street vendor lost his life after allegedly being beaten by an e-rickshaw driver. The altercation unfolded when the e-rickshaw driver parked his vehicle in front of the victim's vegetable cart. An argument ensued between the two, leading to the unfortunate incident	This incident highlights the potential for minor disputes to escalate into violent confrontations, leading to tragic outcomes. It underscores the need for conflict resolution skills and the importance of preventing violence in public spaces.	Designing public spaces and streets in a way that minimizes opportunities for conflicts can contribute to preventing such incidents.	Natural surveillance/access control	News website	<a href="https://www.">https://www.</a>
95	2023	Mongolpuri	Narrow alley	assault	Broad daylight	A woman was brutally assaulted along with her minor son by a man during an argument in Mangolpuri in North West Delhi	The footage shows the man slapping the woman repeatedly as she confronts him at a narrow lane in the area. He is also seen slapping her minor son as he tries to intervene.		Maintenance	News website	<a href="https://www.">https://www.</a>
96	2023	Shahbad Dairy	Bushy area	Murder	Unknown	The body of a 30-35-year-old man with multiple stab wounds was recovered from the bushes in the Shahbad Dairy	it was found that there was a dispute between the victim and the suspect over a trivial matter, which escalated into a heated argument, leading to the	Bushy areas, unlit abandoned farms etc. give impunity to perpetrators	Natural Access Control/Surveillance	News website	<a href="https://www.">https://www.</a>

S. No.	Date of Incident	Location	Type of Location	Nature of Incident	Time of incident	Description of incidence	Problem Statement	Remarks	CPTED Principle Involved	Source Description	
							fatal stabbing of the individual				
97	2023	Burari, North Delhi	Street crime	Hit and Run	11:30 AM	A 60-year-old woman and her son were killed after their two-wheeler was hit by a car in North Delhi's Burari	CCTV footage could not clearly show number plate of car		Natural Surveillance	News website	<a href="https://indi">https://indi</a>
98	2023	Northeast Delhi	School	Attempt to Murder	daylight	An 11-year-old student from a Delhi government school in Northeast Delhi was allegedly thrashed by a teacher who also attempted to strangle him for not bringing his textbook to the class.				News website	<a href="https://india">https://india</a>
99	2023	South Delhi	Street crime	Hit and Run	11:30 PM	A 30-year-old research student was killed and another injured when a car hit them near IIT Delhi	The car was found abandoned in a damaged condition some distance away from the scene of the accident.		Natural Surveillance	News website	<a href="https://ww">https://ww</a>
100	2023	South Delhi	Street crime	Hit and Run	6:30PM	62 year old woman run over by a car	The driver claimed that he couldn't see the lady from afar and that the roads were too narrow	Dark, dimly lit, narrow street	Natural Surveillance	News website	

**Table 1.** Crime related reports derived from newspapers rime records from New Delhi spanning 2017-23. Collated by authors; Sources: Mentioned as references.

## Statements and Declarations

### Funding

No specific funding was received for this study.

### Conflict of interests

The authors declare no conflict of interests.

### CRedit authorship roles

Conceptualization: RS, PG; Data Curation: PG; Methodology: RS; Project Administration: RS; Resources: RS; Supervision: RS; Validation: PG, RS; Visualization: PG; Writing-Original Draft: PG; Writing-Review & Editing: RS, PG

### Acknowledgements

Special thanks to Rajshekhar Pullabhatla and Group Captain P Aanand Naidu of ISAC for their support.

## References

- <sup>1</sup> Vania Ceccato. (2016). *Public Space and the Situational Conditions of Crime and Fear*. International Criminal Justice Review, vol. 26 (2), 69-79. doi:10.1177/1057567716639099.
- <sup>2</sup> Jane Jacobs. (1961). *The death and life of great American cities*. Random House.
- <sup>3</sup> Patricia Brantingham, Paul Brantingham. (1995). *Criminality of place*. Eur J Crim Polity Res, vol. 3 (3), 5-26. doi:10.1007/bf02242925.
- <sup>4</sup> National Crime Records Bureau. (2022). *Crime in India 2021*.
- <sup>5</sup> The Economic Times. (2022). *Delhi most unsafe for women, 2 minors raped every day last year: NCRB data* SECTIONS Delhi most unsafe for women, 2. Read more at: <https://economictimes.indiatimes.com/news/india/delhi-most-unsafe-for-women-2-minors-r>

[aped-every-day-last-year-ncrb-data/articleshow/93861290.cms?utm\\_source=contentof\\_interest&utm\\_medium=text&utm\\_campaign=cppst](https://www.ndia.gov/news/india/delhi-most-unsafe-for-women-2-minors-r).

- <sup>6</sup> The Indian Express. (2021). *Delhi: Street crimes increased 30-40% compared to last year*.
- <sup>7</sup> Hesam Kamalipour, Mohsen Faizi, Gholamhossein Memarian. (2014). *Safe Place by Design: Urban Crime in Relation to Spatiality and Sociality*. CUS, vol. 02 (02), 152-162. doi:10.4236/cus.2014.22015.
- <sup>8</sup> C. Ray Jeffery. (1971). *Crime Prevention Through Environmental Design*. American Behavioral Scientist, vol. 14 (4), 598-598. doi:10.1177/000276427101400409.
- <sup>9</sup> Paul Michael Cozens, Greg Saville, David Hillier. (2005). *Crime prevention through environmental design (CPTED): a review and modern bibliography*. doi:10.1108/02637470510631483.
- <sup>10</sup> Patricia Brantingham, Paul Brantingham. (1995). *Criminality of place*. Eur J Crim Polity Res, vol. 3 (3), 5-26. doi:10.1007/bf02242925.
- <sup>11</sup> Patrick Parnaby. (2007). *Crime prevention through environmental design: financial hardship, the dynamics of power, and the prospects of governance*. Crime Law Soc Change, vol. 48 (3-5), 73-85. doi:10.1007/s10611-007-9077-1.
- <sup>12</sup> Kirkholt (England) Burglary Prevention Project. doi:10.1037/e604562011-001.
- <sup>13</sup> Julia E. MacDonald, Robert Gifford. (1989). *Territorial cues and defensible space theory: The burglar's point of view*. Journal of Environmental Psychology, vol. 9 (3), 193-205. doi:10.1016/s0272-4944(89)80034-9.
- <sup>14</sup> Trevor Bennett, Richard Wright. (1984). *Constraints to Burglary: The Offender's Perspective*. doi:10.1007/978-94-009-5652-011.
- <sup>15</sup> Pat Mayhew, Natalie Aye Maung, Catriona Mirrlees-Black. (1993). *The 1992 British Crime Survey: Home Office research study 132*. doi:10.1037/e450482008-001.
- <sup>16</sup> Kate Painter. (1996). *The influence of street lighting improvements on crime, fear and pedestrian street use, after dark*. Landscape and Urban Planning, vol. 35 (2-3), 193-201. doi:10.1016/0169-2046(96)00311-8.
- <sup>17</sup> Barbara B. Brown, Irwin Altman. (1983). *Territoriality, defensible space and residential burglary: An environmental analysis*. Journal of Environmental Psychology, vol. 3 (3),

- 203-220. doi:10.1016/s0272-4944(83)80001-2.
18. <sup>Δ</sup>Sidney Brower, Kathleen Dockett, Ralph B. Taylor. (1983). Residents' Perceptions of Territorial Features and Perceived Local Threat. *Environment and Behavior*, vol. 15 (4), 419-437. doi:10.1177/0013916583154002.
  19. <sup>Δ</sup>Vincent Ostrom. (1975). Defensible Space: Crime Prevention Through Urban Design. By Oscar Newman. (New York: The Macmillan Company, 1972. Pp. 264. \$8.95). *Am Polit Sci Rev*, vol. 69 (1), 279-280. doi:10.2307/1957945.
  20. <sup>Δ</sup>Paul Michael Cozens, Greg Saville, David Hillier. (2005). Crime prevention through environmental design (CPTED): a review and modern bibliography. doi:10.1108/02637470510631483.
  21. <sup>Δ</sup>(1978). The Environment and Social Behavior. By I. Altman. (Pp. 256; illustrated; \$79.5) Brooks Cole: Monterey, Calif. 1975. *Psychol. Med*, vol. 8 (4), 736-736. doi:10.1017/s0033291700019462.
  22. <sup>Δ</sup>Barbara B. Brown, Douglas D. Perkins, Graham Brown. (2004). Incidivilities, place attachment and crime: Block and individual effects. *Journal of Environmental Psychology*, vol. 24 (3), 359-371. doi:10.1016/j.jenvp.2004.01.001.
  23. <sup>Δ</sup>Paul Cozens, David Hillier, Gwyn Prescott. (2002). Defensible Space, Community Safety, the British City and the 'Active Citizen': Penetrating the Criminal Mind. *Crime Prev Community Saf*, vol. 4 (4), 7-21. doi:10.1057/palgrave.cpcs.8140166.
  24. <sup>Δ</sup>William Spelman. (1993). Abandoned buildings: Magnets for crime? *Journal of Criminal Justice*, vol. 21 (5), 481-495. doi:10.1016/0047-2352(93)90033-j.
  25. <sup>Δ</sup>James Q. Wilson, George L. Kelling. (2017). The police and neighborhood safety Broken Windows. doi:10.4324/9781315087863-11.
  26. <sup>Δ</sup>Rupesh Gupta. (2020). Behavioural mapping of crime hotspots in Delhi: a spatial analysis. *Transactions of the Institute of Indian Geographers*, vol. 42. 283-297.
  27. <sup>Δ</sup>CHARU NANGIA, DEVENDRA PRATAP SINGH, SABIR ALI. (2019). BUILT ENVIRONMENT AND ITS IMPACT ON CRIMES RELATED TO WOMEN IN NCT OF DELHI: A PILOT SURVEY. *IJPTM*, vol. 10 (3). doi:10.34218/ijptm.10.3.2019006.
  28. <sup>Δ</sup>Massomeh Hedayati Marzbali, Aldrin Abdullah, Nordin Abd. Razak, Mohammad Javad Maghsoodi Tilaki. (2012). The influence of crime prevention through environmental design on victimisation and fear of crime. *Journal of Environmental Psychology*, vol. 32 (2), 79-88. doi:10.1016/j.jenvp.2011.12.005.
  29. <sup>Δ</sup>The Indian Express. An Express series | Delhi in the dark: Inadequate street lighting in the national capital.
  30. <sup>Δ</sup>Wikipedia. List of states and union territories of India by crime rate, 2023.
  31. <sup>Δ</sup>Livemint. (2022). Delhi registers 440% rise in crime in the last 10 years: Report.
  32. <sup>Δ</sup>The Indian Express. (2022). Delhi in the dark: Inadequate street lighting in the national capital.
  33. <sup>Δ</sup>The Hindustan Times. (2017). Unsafe public spaces: Delhi parks become haunt of addicts, criminals.
  34. <sup>Δ</sup>The Indian Express. (2023). Why Dhawla Kuan is ranked third on list of top 10 black spots in Delhi.
  35. <sup>Δ</sup>Raja Singh. (2023). Pedestrian post-twilight illuminance levels for security, visual comfort, and related parameters: the case of public parks in New Delhi. *Cities & Health*. doi:10.1080/23748834.2023.2231591.
  36. <sup>Δ</sup>The hindustan times. (2023). Delhi govt to develop 'pink parks' as women-only space.
  37. <sup>Δ</sup>NRH Police Department. Crime Prevention Through Environmental Design.
  38. <sup>Δ</sup>Asifa Iqbal, Vania Ceccato. (2016). Is CPTED Useful to Guide the Inventory of Safety in Parks? A Study Case in Stockholm, Sweden. *International Criminal Justice Review*, vol. 1. 26 (2), 150-168. doi:10.1177/1057567716639353.
  39. <sup>Δ</sup>Irina Matijosaitiene. (2016). Combination of CPTED and space syntax for the analysis of crime. doi:10.1108/sc-05-2015-0013.
  40. <sup>Δ</sup>Daniel Lamoreaux, Michael L. Sulkowski. (2019). An alternative to fortified schools: Using crime prevention through environmental design (CPTED) to balance student safety and psychological well-being. *Psychol Schs*, vol. 57 (1), 152-165. doi:10.1002/pits.22301.
  41. <sup>Δ</sup>Carri Casteel, Corinne Peek-Asa. (2000). Effectiveness of crime prevention through environmental design (CPTED) in reducing robberies. *American Journal of Preventive Medicine*, vol. 18 (4), 99-115. doi:10.1016/s0749-3797(00)00146-x.
  42. <sup>Δ</sup>P. Cozens. (2008). Crime prevention through environmental design in Western Australia: planning for sustainable urban futures. *Int. J. SDP*, vol. 3 (3), 272-292. doi:10.2495/sdp-v3-n3-272-292.
  43. <sup>Δ</sup>DH Web Desk. (2023). Absence of light, security on Sultanpuri-Kanjhwala stretch in Delhi.
  44. <sup>Δ</sup>Anon.. (2023). Pragati Maidan Tunnel Heist: Delhi Police Nab 2 Who Looted Delivery Agent At Gunpoint; Security Upged - News18.
  45. <sup>Δ</sup>Anon. (2023). Delhi's 3rd Heist in 10 Days: Businessman Robbed Of Rs 4 Lakh at Kashmere Gate.
  46. <sup>Δ</sup>The Hindustan Times. (2023). Delhi murder case: How cops caught Sahil, accused of stabbing girlfriend.
  47. <sup>Δ</sup>The Quint. (2023). Won't Send Younger Son to College Now: Father of DU Student Stabbed to Death.
  48. <sup>Δ</sup>NDTV. (2023). 15-20 Armed Men Come Looking For Delhi Man Over Loan, Shoot Dead His 2 Sisters.
  49. <sup>Δ</sup>The Hindustan Times. (2023). Abduction bid, molestation is the latest security woe on JNU campus.
  50. <sup>Δ</sup>The Hindustan Times. (2023). East Delhi murder victim was stabbed 50 times with ice pick: Police.
  51. <sup>Δ</sup>The Times of India. (2023). Minor gang-raped in Delhi's Shahbad Dairi area; 3 held.
  52. <sup>Δ</sup>The Times of India. (2023). 13-year-old girl raped.
  53. <sup>Δ</sup>The Indian Express. (2023). MCD school student sedated, raped by peon, 3 associates.
  54. <sup>Δ</sup>India Today. (2019). 25 dark and dangerous spots in Delhi.
  55. <sup>Δ</sup>The Hindustan Times. (2023). Woman crying out for help triggers late-night car chase in the heart of Delhi.
  56. <sup>Δ</sup>The Free Press Journal. (2023). Delhi Crime: 2 Stabbed Over Game Of Gilli Danda In Kailash Kunj; CCTV Video Surfaces.
  57. <sup>Δ</sup>Newsroom Post. (2023). Delhi Crime: 22-year-old youth arrested for stabbing girl in Adarsh Nagar area, incident captured in CCTV.
  58. <sup>Δ</sup>Outlook. (2023). 15-Year-Old Stabbed To Death In West Delhi: 3 Including 2 Juveniles Held.
  59. <sup>Δ</sup>The Indian Express. (2023). Businessman stabbed to death for objecting to street fight; 3 held.
  60. <sup>Δ</sup>(2022). Delhi teenager shot at by 'stalker' on way from school, family says attacker threatened her.
  61. <sup>Δ</sup>The Hindustan Times. (2023). Two changing tyre crushed by speeding truck in east Delhi.
  62. <sup>Δ</sup>The Hindustan Times. (2021). Truck runs over people at Kashmere Gate, two dead.
  63. <sup>Δ</sup>Times of India. (2022). Murder caught on cam: Man stabbed to death by three attackers in Delhi's Sunder Nagri area.
  64. <sup>Δ</sup>Tanveem Haider. (2022). Minor girls raped in two separate incidents in Delhi, India Today.
  65. <sup>Δ</sup>The Hindustan Times. (2022). Delhi: Man rapes & kills child, mutilates her face. She saw him with her mom.
  66. <sup>Δ</sup>India Today. (2022). Minor raped near New Delhi railway station, 2 hawkers arrested.
  67. <sup>Δ</sup>India Today. (2022). Woman gang-raped by railway employees at New Delhi station, 4 arrested.
  68. <sup>Δ</sup>NDTV. (2022). Girl Gang-Raped In Car, Accused Drove Around City, Filmed Act.
  69. <sup>Δ</sup>The New Indian Express. (2022). Delhi: Minor girl gang-raped by seniors in school washroom.
  70. <sup>Δ</sup>India Today. (2022). Cousin among 3 minors who gang-raped 10-year-old Delhi boy and left him for dead.
  71. <sup>Δ</sup>India Today. (2022). Prisoner attempts rape, tries to kill female doctor in Delhi's Mandoli Jail.
  72. <sup>Δ</sup>India Today. (2022). Cyclist dies in collision with BMW car on Delhi-Gurgaon Expressway.
  73. <sup>Δ</sup>The Indian Express. (2022). Delhi teen's rape: Retd Army subedar held, police suspect he targeted couples in parks.
  74. <sup>Δ</sup>Mirror Now News. (2019). Mentally challenged woman gang-raped at public park in Delhi, left for dead.
  75. <sup>Δ</sup>Times Now News. (2019). Delhi: 5-year-old girl gang-raped in Kapashera park; accuse held.
  76. <sup>Δ</sup>Times Now News. (2019). Delhi: Man rapes mentally unstable elderly woman in unlit park; arrested.
  77. <sup>Δ</sup>Hindustan Times. (2017). Delhi man rapes 8-year-old in park while his teenaged daughter 'witnesses crime'.
  78. <sup>Δ</sup>Hindustan Times. (2020). Minor sexually assaulted at Delhi park, attacker held.
  79. <sup>Δ</sup>Hindustan Times. (2022). 50-yr-old rapes minor girl in south-west Delhi after posing as police officer.
  80. <sup>Δ</sup>Hindustan Times. (2017). 24-year-old woman offered lift, raped on her way back from Delhi's Hauz Khas.
  81. <sup>Δ</sup>Hindustan Times. (2023). Teen gang-raped in Anand Vihar park.
  82. <sup>Δ</sup>Hindustan Times. (2017). 21-year-old JNU student drugged, gang-raped in Delhi's Green Park.
  83. <sup>Δ</sup>India Today. (2022). Kidnapped, gang-raped, hair chopped: 4 arrested after assault on Delhi woman on R-Day.
  84. <sup>Δ</sup>India Today. (2022). 8-yr-old raped by 2 juveniles in Delhi's Shastri Park; accused booked under POCSO.
  85. <sup>Δ</sup>India.com. (2019). Delhi: JNU Student Raped By Cab Driver, Dumped In Semi-Conscious State Near Park Hours Later.
  86. <sup>Δ</sup>DNA. (2023). Delhi: 21-year-old man killed for allegedly raping woman, 2 held.
  87. <sup>Δ</sup>BBC World. (2020). India in shock over 86-year-old grandmother's rape.
  88. <sup>Δ</sup>The Guardian. Girls aged two and five raped in separate attacks in Delhi.
  89. <sup>Δ</sup>The National Bulletin. (2022). Delhi Crime: Rape Of Third Class Student In Kalka Public School, Sweeper Got Arrested.
  90. <sup>Δ</sup>IndiaTV. (2020). Delhi man attacks wife with hammer, hangs himself from tree at public park.

91. <sup>Δ</sup>IndiaTV. (2023). Delhi: 70-year-old woman killed, two others injured by armed robbers in Maujpur area.
92. <sup>Δ</sup>IndiaTV. (2023). Delhi: Serial killer, rapist Ravinder Kumar gets life term: The story of a beast who killed 30 children.
93. <sup>Δ</sup>India Today. (2023). Delhi man dies in road accident hours after celebrating son's birthday.
94. <sup>Δ</sup>NDTV. (2023). Delhi Accident: Delhi Inspector Killed After Truck Rams His Car Near Metro Station.
95. <sup>Δ</sup>India Today. (2023). Delhi woman, 22, dies after car gets crushed between two trucks.
96. <sup>Δ</sup>NDTV. (2023). CCTV Captures Deadly Delhi Accident, Man Carried On Car Roof For 3 km.
97. <sup>Δ</sup>Hindustan Times. (2023). Congress leader Rajesh Lillothia's wife dies in road accident in Delhi.
98. <sup>Δ</sup>Hindustan Times. (2023). Van jumps divider in northeast Delhi, rams into bus on other side, 3 dead.
99. <sup>Δ</sup>Mani Raj. (2023). Delhi crime: 3 held in Inderlok for Rs 51 lakh robbery from cash van, driver involved in loot.
100. <sup>Δ</sup>First Post. (2023). New Delhi: Man slapped by date, 'raped' by restaurant owner, bouncer after row over 'inflated' bill.
101. <sup>Δ</sup>Hindustan Times. (2022). 8-year-old girl battered to death in Narela in 'revenge attack'.
102. <sup>Δ</sup>India Today. (2019). Delhi: Shots fired at journalists on Barapullah flyover, 3 cops suspended.
103. <sup>Δ</sup>Newsroom Post. (2023). Delhi Crime: Neighbour shoots pregnant woman for objecting to loud music, dies during treatment.
104. <sup>Δ</sup>Hindustan Times. (2023). Shraddha Walkar case: Aftab Poonawala charged with murder, disappearance of evidence.
105. <sup>Δ</sup>Hindustan Times. (2023). Accused in 2018 murder in Delhi arrested.
106. <sup>Δ</sup>Hindustan Times. (2023). Woman's body found in fridge in Delhi, boyfriend arrested.
107. <sup>Δ</sup>The Indian Express. (2023). Missing man found dead; cops nab his friend for killing him, staging crime as kidnapping.
108. <sup>Δ</sup>Hindustan Times. (2023). Delhi police bust vehicle theft gang, recover 16 stolen bikes; one arrested.
109. <sup>Δ</sup>India Today. (2023). CCTV footage shows Delhi woman who killed boyfriend's son entering house.
110. <sup>Δ</sup>Hindustan Times. (2019). 62-yr-old Delhi doctor shoots woman dead over affair, then kills himself: Cops.
111. <sup>Δ</sup>India Today. (2017). Delhi: 18-year-old boy strangles schoolgirl to death, arrested.
112. <sup>Δ</sup>India Today. (2017). Delhi horror: Man stabs wife 25 times in front of son.
113. <sup>Δ</sup>Business Standard. (2019). Youth shot at in Rohini gang war.
114. <sup>Δ</sup>Hindustan Times. (2019). Gangsters go brazen: 220 gunshots fired on Delhi's streets over 30 days.
115. <sup>Δ</sup>Hindustan Times. (2019). Gangsters go brazen: 220 gunshots fired on Delhi's streets over 30 days.
116. <sup>Δ</sup>DNA. (2017). Parks turning into convenient hideouts for criminals in Delhi.
117. <sup>Δ</sup>NDTV. (2018). Man Tried To Rape Girl In South Delhi Park. She "Smacked Him In The Face".
118. <sup>Δ</sup>NDTV. (2023). Man Arrested For Sexually Abusing Nephew In Delhi.
119. <sup>Δ</sup>NDTV. (2023). 1 Killed, 2 Injured By Robbers On Stabbing Spree In East Delhi: Cops.
120. <sup>Δ</sup>NDTV. (2023). Man Installing Signboard Crushed To Death By Speeding SUV In Delhi: Cops.
121. <sup>Δ</sup>NDTV. (2023). 5 Firemen Injured After Massive Blaze At Delhi Plastic Factory.
122. <sup>Δ</sup>NDTV. (2023). Delhi Teacher Falls Out Of Auto, Dragged On Road In iPhone Snatching Bid.
123. <sup>Δ</sup>NDTV. (2023). 28 Students Hospitalised After Suspected Gas Leak Near Delhi School.
124. <sup>Δ</sup>NDTV. (2023). Man Arrested For Masturbating In Front Of Woman At Delhi Metro Station.
125. <sup>Δ</sup>NDTV. (2023). Man Kills Wife He "Bought" For ₹ 70,000, Dumps Body In Forest: Cops.
126. <sup>Δ</sup>NDTV. (2023). Man, 22, Stabbed To Death Outside Mall In West Delhi: Police.
127. <sup>Δ</sup>NDTV. (2023). Man Kills Friend Over 'One-Sided Love' With His Wife: Delhi Police.
128. <sup>Δ</sup>NDTV. (2023). Teen Stabbed To Death During Fight In Delhi's Seemapuri: Cops.
129. <sup>Δ</sup>(2023). Delhi Man Who Killed Cousin Stalked Her After She Refused To Marry Him.
130. <sup>Δ</sup>NDTV. (2023). Woman, 42, Shot Dead Near Her Home In Delhi, Probe Launched.
131. <sup>Δ</sup>NDTV. (2023). Gold Supplier Stabbed To Death By Four People In Delhi's Karol Bagh.
132. <sup>Δ</sup>NDTV. (2023). Woman, Her Son Dead After Portion Of Building Collapses In Delhi.
133. <sup>Δ</sup>NDTV. (2023). E-Rickshaw Driver Beats Street Vendor To Death Following Argument In Delhi.
134. <sup>Δ</sup>NDTV. (2023). Caught On CCTV: Delhi Woman Slapped Repeatedly During Rent Altercation.
135. <sup>Δ</sup>NDTV. (2023). Man's Body With Multiple Stab Wounds Found In Delhi's Shahbad Dairiy: Cops.
136. <sup>Δ</sup>The Indian Express. (2023). Woman, son killed in hit-and-run.
137. <sup>Δ</sup>The Indian Express. (2023). Delhi: Angry over not bringing textbook to class, teacher thrashes minor, attempts to strangle him.
138. <sup>Δ</sup>India Today. (2023). IIT Delhi PhD student killed, friend injured in hit-and-run, probe on.

## Declarations

**Funding:** No specific funding was received for this work.

**Potential competing interests:** No potential competing interests to declare.