



## Crime Prevention Through an Environmental Design Approach in Reducing Crime Rates in Indonesia

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### **Abstract**

This research aims to analyze crime prevention through an environmental design approach in crime prevention policies in Indonesia and to analyze weaknesses in crime prevention through an environmental design approach in reducing the rate of crime in Indonesia. By using normative legal research methods. The results of this research show that crime prevention through an environmental design approach in crime prevention policies in Indonesia, Indonesia has never used the concept of crime prevention through an environmental design approach in crime prevention policies in Indonesia. Because the CPTED concept is a crime prevention concept that is not known in Indonesia. The concept that is often known as Secure Guard Area is a concept that offers an area where crime prevention mechanisms are completely handed over to security officers. Crime prevention in the concept of security officers must have the ability to carry out territorial areas, the ability to carry out surveillance, must be able to have the ability to portray a good image of the environment, so that officers are able to provide comfort and security for the areas in their duties. Then, the weaknesses in the crime prevention approach through environmental design in reducing the rate of crime in Indonesia, in understanding the weaknesses in CPTED, the author divides them into three weaknesses, namely theoretical weaknesses are a process and not a result and in practice the CPTED process often fails to consider the risk of crime in detail. adequate. Juridical weaknesses and practical weaknesses.

**Keywords:** *Crime Prevention; Crime Prevention Through Environmental Design; Crime*

### **Introduction**

Crime prevention differs significantly from most criminological methods. Utilizing an analysis method directed towards specific types of crimes, it introduces separate changes in management and the environment to reduce the likelihood of such crimes. Thus, its focus is on organizing crime rather than the individuals committing it. The aim is to prevent crimes rather than detect and punish the perpetrators, not

to attempt to eradicate crime or criminal tendencies by improving society or its institutions, but merely to make crime less attractive to offenders (Hutabarat et al., 2022). The focus is not on the criminal justice system but on various public and private organizations and institutions, schools, hospitals, transportation systems, shops and shopping centers, manufacturing businesses, and telephone companies. These entities, in their production, service, and operation, provide opportunities for different criminal activities.

Crime is a social phenomenon constantly faced by society. Efforts to eliminate crime within communities often encounter failure. There are three main approaches to crime: offender, victim, and area. As conveyed by the Indonesian National Police (Polri) during the 2019-2021 period, the number of crime incidents or criminal activities in Indonesia tended to decrease. The total number of crimes in 2019 was 269,324 incidents, in 2020 it was 247,218 incidents, and in 2021 it became 239,481 incidents. From this data, we can observe that the crime rate, which serves as the basis for indicating the vulnerability level of a crime in a specific area, increases with a higher crime rate, indicating a higher vulnerability to crime in that area and vice versa. The decline in crime from 2019 to 2021 indicates that factors related to offenders, victims, and regional potential have decreased. The indicators of reduced crime in criminal statistics data occurred due to the influence of the diligent operational work of the police in crime enforcement operations and changes in the law. These two indicators are among the factors contributing to the decline in crime rates in Indonesia (Mustofa, 2015).

Crime prevention through environmental design is related to the interaction between humans and the physical environment. Efforts to control behavior through design and use are as old as civilization itself (City Of Fort Wayne Indiana, n.d.). A more productive environment with a mix of land uses generates livelier activities. Inter-block design and building design provide opportunities for residents to interact more with each other. This observation subsequently transformed urban design and planning, significantly influencing research on crime and violations in cities.

All countries experience crime, violence, and victimization. This can lead to certain countries where a certain percentage of young people are killed before reaching adulthood, communities with families losing parents or having family members in prison, poverty and a lack of access to sufficient support or income sources, women who have experienced violence at home or are at risk of sexual violence at home, public areas with high crime rates and insecurity causing commercial and family isolation from the surrounding community (Shaw, 2010). Brantingham argues that there are four dimensions of crime: law, offender, target, and location. Location-based crime prevention strategies focus on specific crime locations, targets, and crime locations (P. M. Cozens et al., 2005). Crime Prevention Through Environmental Design (CPTED) is based on the idea that proper design, natural access control, and effective built environment use can reduce crime incidents and the fear of crime (National Crime Prevention Council, 2003).

Conceptually, CPTED is still not widely known in Indonesia, only by certain community groups. This environmental design crime prevention model is more explored by specific professional groups such as architects, contractors, and civil engineering colleagues. Yet, the preventive reach of CPTED is quite extensive, especially in large cities such as Jakarta, Bandung, Surabaya, and Yogyakarta, where rapid development makes the implementation of the CPTED model approach highly suitable for improving spatial layouts with crime prevention functions (Sudiadi, 2015). Indonesia should recognize the CPTED model approach as a step towards concretely reducing crime, not instantly. Considering the influence of the CPTED model, it can force the smallest units within an area to be detected and monitored.

From the outlined background, current study aims to investigate the impact of environmental design on crime prevention policies in Indonesia, evaluating its effectiveness in reducing crime rates and enhancing public safety. It also aims to identify shortcomings in implementing environmental design strategies, examining barriers faced by policymakers and urban planners such as lack of resources and

awareness. Recommendations will be provided to improve implementation, including policy changes and training programs. Overall, the study aims to contribute to existing literature on crime prevention policies in Indonesia and provide strategies for enhancing public safety.

### **Method**

This study utilizes a normative legal research method, employing the statute, conceptual, and comparative approaches to examine the issues at hand. Primary legal materials like the Criminal Code (KUHPidana) are used, along with secondary legal materials such as official documents, scholarly books, legal expert opinions, and legal journal articles. Tertiary legal materials like the Indonesian Dictionary and Legal Dictionary are also included. The sources are obtained through literature review and extracting materials from various legal sources.

To gather secondary data, the author conducted a Literature Review, simplifying data through interpretative analysis. The final step involves data analysis to provide answers to the research questions, systematically arranging the data for better understanding and presentation.

### **Results and Discussion**

#### **A. Crime Prevention Through Environmental Design Approach in Crime Prevention Policy in Indonesia**

#### **B. Concept of Crime Prevention Through Environmental Design Approach**

From the concept of crime prevention through an environmental design approach, there has been a rapid development of CPTED to the third generation.

##### **a. First generation of CPTED**

Crime Prevention Through Environmental Design is the concept of crime prevention through environmental design, the first generation of CPTED consists of six elements namely territoriality, surveillance, access control, activity support, image/management and target hardening (P. M. Cozens et al., 2005).

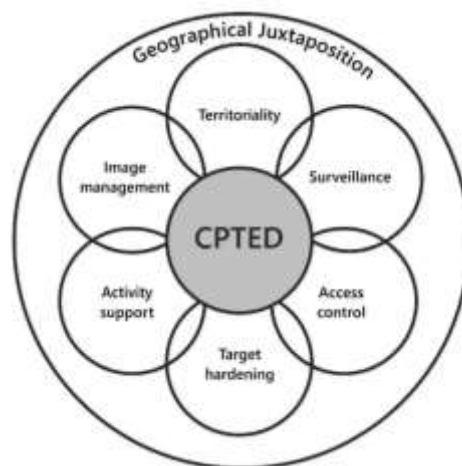


Figure 1. First generation of CPTED Model

As for further elaboration on the first generation of CPTED, it is as follows (P. M. Cozens et al., 2005):

#### 1) Territoriality

Territoriality is a design concept aimed at reinforcing the idea of ownership and a "sense of ownership" to reduce opportunities for violations by diminishing the hearts of criminals. A study conducted by Brown and Bentley in 1993 demonstrated how some thieves use territoriality to assess risks. Territoriality is also supported by findings from studies on crime fear by Perkins (P. M. Cozens et al., 2005). Three years later, in 1996, Taylor eliminated undefined spaces and ensured that all spaces had clear purposes, were well-maintained, and regularly monitored, which is also a territorial component. Research on territoriality has shown that it is most effective at the local level, although it is fraught with difficulties related to definition, interpretation, and measurement. Indeed, in 1981, Merry observed how territoriality varies across cultures, environments, and individual groups. Although still controversial, an increase in territorial levels has been associated with a recorded decrease in crime rates and fear of crime (P. M. Cozens et al., 2005).

From the above research by several experts, it is related to the concept theory offered by the author, namely routine activity theory, as explained by Cohen and Felson. There are three factors influencing an individual's crime rate: motivated offenders, suitable targets, and the absence of adequate guardianship. In the author's understanding studied regarding territoriality, it becomes one indicator for business actors in committing crimes, namely suitable targets in terms of location, habits, character, and environmental conditions (Setyawan & Larasati, 2021).

#### 2) Surveillance

Physical design has the capacity to encourage informal or natural surveillance opportunities for residents and the community. If criminals feel they are being observed (even if they are not actually being observed), there is a lower likelihood of them committing a crime, given the increased potential for intervention, apprehension, and prosecution.

#### 3) Access Control

Access control is a CPTED concept focused on reducing crime opportunities by denying access to potential targets and creating a high-risk perception for criminals. Access control can include informal/natural, formal/organized strategies (such as security personnel), and mechanical strategies (such as locks and bolts). Studies conducted by Newman all show a relationship between design features and crime rates, especially features that allow unrestricted pedestrian movement through residential complexes. However, researchers also found that busier streets with more pedestrian movement experienced a decrease in crime rates (P. M. Cozens et al., 2005).

#### 4) Activity Support

Activity support involves the use of design and signage to encourage desired patterns of public space usage. Crowe notes how, for plausible reasons, the generation of activity and support strives to place inherently "unsafe" activities (such as transactions involving money) in "safe" locations (locations with high activity levels and surveillance opportunities). Similarly, "safe" activities become magnets for ordinary residents who can then act to prevent the presence of criminals. This approach clearly contains elements of territoriality, access control, and surveillance (P. M. Cozens et al., 2005).

#### 5) Image/Management

Promoting a positive image and regularly maintaining the built environment ensures that the physical environment continues to function effectively and sends positive signals to all users. The

importance of the physical condition and "image" of the built environment and its impact on crime and fear of crime has long been known. In relation to the management of private rental housing, Eck argues, "we have strong evidence that improving property management can reduce drug-related crimes." Empty buildings are considered to represent a "magnet" for crime, and smaller buildings are preferred locations for drug trafficking because they have fewer management and financial resources to regulate such criminal activities. In public transportation, cleaning programs are carried out to remove graffiti from all train cars and stations.

#### 6) Target Hardening

Target hardening increases the effort that must be exerted by offenders to commit a crime and is the longest and most traditional approach to crime prevention. However, there are many differences of opinion about whether target hardening should be considered a component of CPTED or not. It is intended to deny or limit access to crime targets through the use of physical barriers such as fences, gates, locks, electronic alarms, and security patrols. It is crucial to note that an overreliance on target hardening strategies may lead to a sense of 'fortress mentality' among residents, causing them to retreat behind physical barriers. This can ultimately hinder the built environment's ability to self-regulate, thus undermining CPTED strategies that emphasize surveillance, territoriality, and image. One strategy for reducing theft is to enhance keys and security at access points (P. M. Cozens et al., 2005).

#### b. Second Generation of CPTED

The Second Generation concept is drawn from emerging sociological research on collective delicacy and land use capacity. It also encompasses the principles of political and cultural connectedness that have emerged in subsequent literature (P. Cozens & Love, 2017).

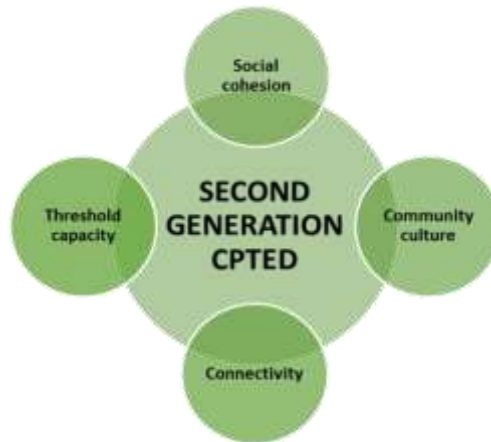


Figure 2. Second generation of CPTED Model

As for further elaboration on the second generation of CPTED, it is as follows:

#### 1) Social Cohesion

The key element of social cohesion is that social programs are proximal (community-based), targeted directly in the local environment rather than city-wide. Moreover, they typically utilize First-Generation CPTED to reinforce social programs. This focuses on nurturing communities where there is a sense of mutual respect and appreciation for differences and similarities that make the community unique. It acknowledges, values, supports, and celebrates diversity. Socially cohesive communities share a common vision and sense of ownership and focus on developing positive relationships among people from different backgrounds (P. Cozens & Love, 2017).

## 2) Community Culture

Community cultural programs bring people together to create shared goals. In this regard, their goal differs from cohesion strategies that work on specific issues. Community cultural programs help reinforce First-Generation CPTED by assisting residents in creating a sense of togetherness and forming strong bonds with each other. These relationships are sometimes associated with cultural events in the neighborhood, art and music festivals, and placement activities that enable people of all genders, ages, and ethnic backgrounds to get to know each other.

## 3) Connectivity

Environment focused internally sometimes tends to exclude others from its environment or create exclusive programs that overlook the broader community. This is known in planning as the "not-in-my-backyard" syndrome, and in recent years, First-Generation CPTED has been criticized for being exclusive to certain ethnic or income groups. Connectivity programs connect neighbors with the surrounding environment through alliances, formal communication channels, and other strategies to connect and remain inclusive. Connectivity strategies can be physical (such as connected pathways) or social (such as community events). Additionally, connectivity strategies also link the environment with other levels of governance, for example, to obtain government grants for creating new programs.

## 4) Threshold Capacity

The final concept relates to Jacobs' initial idea of creating rich and authentic diversity in the built environment. He believed that land use and demographic diversity are small-scale phenomena that should emerge in all environments. The concept of threshold capacity proposes the use of mixed-use land in environments where residents can socialize (parks), shop for food (food stalls), and engage in recreation (sports or entertainment). Capacity strategies also prevent the use of land that reduces the security of a place, such as too many places serving alcoholic beverages or drug distribution locations, thus creating land use with criminally conducive conditions.

### **c. Third Generation of CPTED**

The Third Generation of CPTED should develop Jeffery's original guidelines for CPTED and adopt a more holistic theoretical approach to expand the First and Second Generation of CPTED. This should include 21st-century advancements in cognitive, behavioral, and environmental science, such as sustainability, social information processing, research on how people perceive their environment and their satisfaction with it, and advancements in neurological and cognitive science. From the concept of the Third Generation CPTED, two parts can be analyzed: the principles of livability and environmental well-being.

#### 1) Principles of Livability

The development of livability scoring tools to help residents find the ideal environment to meet their lifestyles, needs, and personal demands. Indicators include elements such as stability, safety, the environment, social opportunities, culture, education, infrastructure, etc. The main strength of this approach is the integrated livability metrics that do not consider safety separately from other needs and elements of quality of life.

#### 2) Environmental Well-being

The Third Generation of CPTED explains environmental well-being to classify the quality of life of the surrounding environment but also serves as an orientation for future crime prevention research and a series of potential urban development strategies. In this regard, environmental well-being is divided into

three parts: basic level, moderate level, and advanced level (Mihinjac & Saville, 2019).

- **Basic Level Environment:** Basic level livability will include minimal services and infrastructure. Existing facilities are unattractive, may not provide physical and social infrastructure to encourage relationship development, and the community generally has no input or involvement in planning and implementing services/infrastructure. There is no sense of attachment among residents to their community, and some Basic Level environments have highly transient populations with people moving in and out too frequently to form social bonds.
- In places like these, residents are unwilling to participate in neighborhood events, communities don't know their neighbors, and residents lack respect for others or ownership of the environment. There are only few, if any, community health activities or facilities, such as walking, cycling, or parks, and the community is not inspired to engage in such activities.
- The hallmark of Basic Level environments is their focus on meeting basic human needs through the provision of services and infrastructure. Therefore, after basic needs like safety are met, there needs to be an expansion of environmental capacity to enhance aspects of human social interaction, health and environmental sustainability, and opportunities to fulfill deeper human needs.
- **Moderate Level Environment:** Moderate livability includes all Basic Level services and also provides opportunities to meet personal and collective environmental needs through pro-social behaviors, preferably with input from residents themselves, thus providing opportunities for residents to control factors to enhance their own livability.
- Environments with moderate livability sometimes experience positive social events or cultural celebrations, and the level of fear of crime is relatively low, but other quality of life indicators, such as health or the environment, may be lacking. Community health activities and facilities may exist, or they may not, but they are not well-known and underutilized.
- **Advanced Level Environment:**

The highest level of livability offers many opportunities for residents and visitors to engage in pro-social behaviors by integrating safety, health, and enjoyment of public spaces. This high level of livability includes high-quality community health activities and facilities, programs in environmental sustainability, with a large portion of the population (perhaps up to 25% or more) actively involved in organizing formal/informal associations.

## **Crime Prevention Through Environmental Design Approach in Indonesia's Crime Prevention Policy**

Offenders will not commit crimes if there is no motivator and if their environment does not support it, such as territoriality, natural surveillance, environmental image, and safe areas. From this explanation, the author will elaborate on the concept of CPTED in crime prevention in Indonesia as follows:

### **A. Territoriality/Localization**

Territoriality can be divided into several categories, namely physical and social. Physically, it consists of the presence of boundary fences, whether they are house fences, sector or block portals, and complex walls that influence the difficulty for criminals to commit crimes. Similar to Robert O'Block's statement that "an essential aspect of environmental security is successfully achieved through the

construction of barrier walls, with the aim of preventing or delaying unauthorized access to existing goods" (Sudiadi, 2015). Socially, territoriality is operated through an understanding of social closeness. Several things indicate that collectively preventing crime is more effective than individual crime prevention. Collective crime prevention is commonly known as self-help. According to Moore, self-help lacks three essential characteristics:(Sudiadi, 2015)

- a) It is done in the name of the law, rationally in line with the opinion about the protection of citizens' rights, about what should happen or retaliation or prosecution of those who are guilty.
- b) That self-help is the hard side of peace actions. Generally, actors have rational considerations for self-help efforts.
- c) Ultimately, self-help can mean collective responsibility.

From the three essential characteristics presented by Moore about self-help, we can say that self-help becomes an important element in informal social control. Another important element socially is community closeness, which is interpreted as the level of unity, closeness, and familiarity among community members in an area (Sudiadi, 2015).

## **B. Natural Surveillance**

Natural surveillance, as stated by Stephanie and Blakeman, asserts that (Sudiadi, 2015), "when a criminal knows he is being watched or thinks he might be watched, the criminal will abandon his intention to commit the crime. If walls, doors, and fences make it possible for residents or neighbors to survey their territory or tell criminals that they can be seen, situations like this will deter criminals."

Socially, to explain the concept of natural surveillance consists of forms of security accountability that are more burdensome to security units; security officers must be familiar with their residents, and vice versa. This creates a very strong relationship between security officers and residents, so when other residents enter the neighborhood, it can be detected well.

## **C. Image and Environment**

Image and environment are guided by the ability of the environment, both physically and socially, to eliminate the perspective of being safe and not easily attacked. When entering an environment using a single entrance and exit with security guard surveillance, the possibility of being questioned about their access to enter an environment is high.

An environment with strong walls or natural boundaries that make it difficult for others to enter creates the perception that the environment is secure. The concept of image and environment to keep an environment safe includes the presence of portals, speed bumps, and high-security posts. A concrete example is "residents who maintain security and order, and guests must report to the neighborhood head 24 hours a day by leaving their ID card."

Socially, outsiders perceive that a residential complex must be secure, and those inside must also perceive a safe environment. The presence of public facilities that can be used by outsiders, such as a doctor's practice, notary office, and others, can also influence and even lower the perception that the environment is secure.

## **D. Safe Areas**

The implementation of the concept of safe areas must indicate habitual conditions that show that the place or settlement is in a safe, calm, comfortable, and fear-free condition (fear of crime). Fear of



crime must emphasize three components. Of the four concepts offered above for preventing crime through environmental design approaches in Indonesia, according to the author, the CPTED concept, only the difference in the name of the concept used in the concept of preventing crime through environmental design. The concept commonly known as the Secure Guard Area is a concept that offers areas with crime prevention mechanisms entrusted entirely to security officers.

Crime prevention in the concept of security officers must have the ability to manage territorial areas, the ability to conduct surveillance, must be able to have the ability to describe a good environmental image so that officers can provide comfort and security for areas within their duties. Security officers must also have the ability to manage territoriality. In this case, security officers must be familiar with their working colleagues, and they must also know the ins and outs of the environment they guard. Security officers must be familiar with the individual residents of the environment, such as their names, occupations, vehicles, and lifestyles. Thus, security officers have the ability to distinguish between residents of the environment and outsiders.

In the concept of natural surveillance, security officers must have the ability to conduct surveillance that is closely related to their territorial concept. Thus, security officers must monitor each resident and their belongings continuously. Therefore, security officers must have the ability to determine which part of their environment to provide more lighting than other places, determine house fences that obstruct surveillance by security officers. Thus, security officers will quickly determine the criminal threats that occur in their environment.

In the concept of environmental image, security officers must perform two mechanisms, both for maintaining security and using the benefits of the facilities owned by the environment. For example, by always patrolling, creating guard posts that are always on standby, and always asking the purpose of people entering the environment.

From the explanations above, it is expected for the prevention of a crime that occurs in the environment carried out by security officers. To obtain the ability in crime prevention by security officers, it is very necessary to have a commander or security coordinator who has the ability to analyze and predict potential crime threats and to train other security officers to have the ability to prevent crime in the concepts of territoriality, natural surveillance, a safe environmental image, and safe areas.

Although the concept of crime prevention through environmental design is not known in Indonesia, the use of this Secure Guard Area concept aligns with the concept of target hardening from CPTED, which is a strategy to improve environmental security to avoid becoming a target of crime. The strategy that must be implemented is to use three factors that influence the occurrence of crime, namely:(Sudiadi, 2015)

- a) Crime is the result of the process of the meeting of intention and opportunity to commit a crime.
- b) People who commit crimes have a pattern; the pattern possessed by each perpetrator will form an ideal crime pattern.
- c) There are differences in the crime rate according to residential areas, variables that influence the difference in crime rates between residential areas consist of:
  - o Environment, which is social characteristics such as race, ethnicity, economic level, community organization, traffic patterns, and resource usage.
  - o Protection by the police, including the number and effectiveness of police personnel, as well as the use of personal security units.

- Characteristics of settlements include the age of houses, settlement locations, and the overall construction of housing units.
- Resident behavior, including the extent to which residents unconsciously facilitate crime by not taking personal or collective crime prevention actions.
- Environmental design, including the effectiveness of security equipment such as keys, alarms, doors, and windows equipped with security devices.

## **Weaknesses in Crime Prevention Through Environmental Design Approach in Suppressing Crime Rate in Indonesia**

### **A. Theoretical Weaknesses of Crime Prevention through an Environmental Design Approach in Suppressing the Crime Rate in Indonesia**

The failure of the physical environment design in changing the impact of crime and the fear of crime may be directly caused by elements of CPTED, whether it's territoriality, natural surveillance, image and environment, and safe areas. The impact of the physical environment design on crime and the fear of crime still needs to be evaluated, as proposed by Lab and Langworthy in 1989 suggesting two crime prevention models, namely the traditional crime prevention model and community-oriented crime prevention (Steven, 2017). As stated by Lab and Langworthy above, it is due to the inability of the CPTED concept to suppress crime and the fear of crime. The traditional crime prevention model responds by constructing physical design, target hardening, and access control (Steven, 2017). The community-oriented crime prevention model actively involves residents in activities to foster community closeness, responsibility for control, and other factors that will influence crime and the fear of crime (Steven, 2017).

We are already familiar with the longstanding criticism of 'fortress communities' against CPTED, but in reality, there is a dark side to every CPTED task. Because the environment is where we live and act, for better or worse, properties and relevant features are often maliciously exploited by perpetrators and may even be deliberately shaped by them for criminal purposes. Offenders will undoubtedly respond to preventive interventions by developing retaliatory actions. Thus, the application of CPTED becomes a theoretical constraint, namely the concepts within the CPTED theory itself, which consists of territoriality, access control, target hardening, surveillance, activity support, and image and management.

#### **a. Territorial/Geographical**

Territoriality is a central element of CPTED, related to the concept of private and semi-public spaces. In practice, this is manifested through symbolic boundaries such as signs or changes in road surfaces, as well as tangible ones like fences that limit specific areas. Unfortunately, for key concepts like territoriality, the definition is very limited. In-depth reviews of CPTED note the difficulties in defining, interpreting, and measuring territoriality. Despite acknowledging these challenges, initial attempts at definition focus on property concern and ownership, later supplemented with practical components of territoriality, including eliminating undefined spaces and ensuring all spaces have clear boundaries and designated purposes for routine maintenance and monitoring.

#### **b. Access Control and Access Management**

The operational task of access control is, of course, related to discriminative control over who is allowed to enter specific areas or restricted zones, possibly carrying items (weapons, contraband, surveillance cameras) to prevent them from committing crimes. The intended crimes can be determined by their past actions inside a space or sometimes by their presence. CPTED focuses on entry. Situational

Crime Prevention (SCP), with exit filtering, also includes exits, and there is no logical reason why CPTED should not do the same. Perhaps this task should be referred to as access/egress control (Ekblom, 2011).

Controlling exits as a task can function as a defense for specific spaces if it involves expelling intruders. The situational prevention concept of "exit filtering" is broader as it also encompasses protecting stolen goods from stores or warehouses. This may be considered beyond CPTED, although once again, the demarcation seems arbitrary. Whatever the issue, the 'disorder' of crime and crime prevention means that all aspects of exit control can contribute to defense. Perceptions by perpetrators that exiting after a robbery or attack would be difficult may deter them from attempting entry. Access control is a causal property dependent on the configuration and nature of barriers, closures, and entry points, whether equipped with poles, gates, or just large guards blocking entrances (Ekblom, 2011).

### **c. Target Hardening**

The first thing to remember here is the confusion propagated by CPTED and SCP regarding what should be a crucial distinction between a target and a target area. It might make more sense to classify target hardening tasks as a subordinate way to defend spaces that are highly enclosed. The significant difference between the phrases "defensible space" and "target hardening" may originate from using the former term in functional discourse and the latter in more technical terms. It is clear that environmental hardening is part of defense, whether it is against the environment itself or against whoever or whatever is inside it. There is a more ambiguous relationship between maintenance and image. Hardening supports maintenance, considering that harder covers may require less maintenance against damage. However, if poorly designed, the presence of heavy covers, locks, etc., can burden maintenance. If done without considering aesthetics, hardening, especially through overt fortification, can adversely impact the community's image and sense of security (Ekblom, 2011).

In reality, target hardening, although crucial for SCP, should only fall within the scope of CPTED if the target itself is part of the built environment, a house that needs protection from damage, walls sprayed with graffiti, and so on. Here, they act as direct crime objects and not as covers. In this context, target hardening contributes to defense capabilities, although its original meaning, according to Newman, may refer more to the configuration of defensible spaces and covers compared to material defense. If practitioners and researchers consider maintaining this distinction worthwhile, we might refer to defensible spaces and defensible structures.

Hardening refers to preparations and preventive tasks intended to provide targets and restricted areas with the same resistance properties against manipulation by perpetrators in efforts to achieve various criminal means and goals. Notorious criminals are equipped with various tools intended to overcome resistance from targets and protected areas.

### **d. Surveillance**

Active surveillance is typically associated with the duties of guards or police patrols, perhaps also to watch for repeat victims or nosy neighbors. Passive surveillance is where preventers do not specifically look for suspicious activities but become aware of them when such activities occur. It is not just a task but refers to the potential for the community to become active monitors through their presence or remote access to information, their perceptual/assessment abilities (sharpness, knowledge, skills, tools such as mirrors or CCTV), motivation, and the nature of surveillance in the environment they and the perpetrators occupy.

When surveillance concerns a specific space (owned or the responsibility of someone), it can be done to support defense, which may have territorial motives or not. Here, it involves monitoring who approaches, enters, or moves within that space and what they are doing, which may lead to some form of control response (Ekblom, 2011).

Perpetrators' perceptions of active or passive surveillance may be criminogenic, thus deterring criminal actions at the early stages or during commission. Even their perception of surveillance may have a similar effect (where perpetrators note the possibility, for example, that someone might witness their crime from a specific window or CCTV camera).

Surveillance and even surveillance capabilities can also be more interactive. For instance, one of these can make perpetrators unintentionally reveal suspicious intentions through nervous appearances or uncertain actions. Self-disclosure can even be successful by forcing perpetrators to direct their steps to a specific and limited viewpoint where they can inspect the security of a location, but this is known by security staff explicitly monitoring the visit.

#### **e. Activity Support, Places Supporting Activities**

The concept of activity support is challenging to comprehend. Cozens et al. define it as the 'use of design and signage to encourage patterns of public space usage' (Ekblom, 2011). However, Crowe refers to safe activities that serve as magnets for ordinary people, who can then act to prevent the presence of criminals (Ekblom, 2011). The former focuses on practical methods, while the latter emphasizes mechanisms. Therefore, it would be very helpful if we consider activity support as an environmentally designed property that encourages honest individuals to engage in lawful activities, and also a task that has preparatory and operational aspects.

Brantingham makes everything more complicated when we attempt to connect the concept of activity support with environmental criminology as a crime attractor and generator (Ekblom, 2011). If activity support mechanisms work as intended, they seem to reduce the attractiveness of crime by providing potential preventive tools. However, the emergence of crime depends more on the specificity of individuals, activities, and context. It may actually increase if this specificity facilitates clashes, confrontations, and theft by those individuals. Alternatively, the population may decrease if they hinder opportunities, and specific paths, nodes, and land use can divert users from space-related conflicts, noise, inappropriate behavior, group competition, and so on.

Supporting activity tasks may involve establishing shops, entertainment venues, and others that are 'appropriate' to attract people and suitable activities. Operational activity support can include, for example, the presence of street entertainers to draw the attention of many families to a location, or even police patrols. Designing the environment to facilitate activity support may include incorporating public seating where adults can engage in informal supervision or social control (Ekblom, 2011).

#### **f. Image and Management/Maintenance**

Community-oriented crime prevention has been a critique of the concept of Crime Prevention Through Environmental Design (CPTED), with many criminologists believing that when someone decides to commit a crime, that decision is based on rational considerations, especially for crimes driven by greed and cunning, such as theft, robbery, or pickpocketing, where the perpetrators are relatively professional. They desire something and consider the best and easiest ways to achieve it. They will not commit the crime if the potential losses and risks far outweigh the benefits or rewards, they would gain (Sudiadi, 2015).

Based on this, a conclusion can be drawn that if the risk and difficulty of committing a crime are increased, then the crime may not be committed. Even if committed, it may take a relatively long time. In an effort to increase the risk and difficulty faced by criminals, reducing opportunities is a suitable mechanism to employ. An approach to crime prevention that emphasizes mechanisms to reduce or eliminate opportunities to make it more challenging or to increase the risk obtained compared to the benefits, if a crime is committed, is known as the situational crime prevention approach. This approach also acknowledges the importance of reducing the rewards received when a crime is committed so that the gains become smaller compared to the risks and losses suffered.

Below are various forms of situational measures that can be taken to make committing a crime more difficult or to increase the risk of committing a crime. These measures include: (Sudiadi, 2015) (Sudiadi, 2015)

- 1) Target hardening, making something more challenging to commit a crime (e.g., installing locks or taking situational measures).
- 2) Target removal, moving or replacing the target of the crime (e.g., replacing payphones with card phones).
- 3) Natural surveillance, providing opportunities for passersby and residents to observe what is happening in an area.
- 4) Formal surveillance, creating a monitoring system (e.g., using CCTV or security patrols).
- 5) Surveillance by employees, a supervision system where employees are responsible for preventing or reducing the opportunity for a crime.
- 6) Control of facilitators to crime, controlling equipment for committing a crime, such as sharp weapons and firearms.
- 7) Reducing the inducement to crime, lowering or eliminating the causes of committing a crime (e.g., not carrying too much cash or wearing conspicuous jewelry).
- 8) Access control, controlling the entry and exit of people to a place, so unauthorized individuals can be immediately identified.
- 9) Deflecting offenders, reforming criminals to deter them from committing crimes.
- 10) Rule setting, establishing specific rules (e.g., traffic regulations, limiting visiting times, or passing through specific areas).

Community-based crime prevention seeks to prevent crime collectively and independently, through efforts to enhance the community's capacity to engage in collective and self-directed crime prevention initiatives. Various efforts are needed to realize this goal. The primary and initial effort is to build social cohesion, as the presence of social cohesion is expected to facilitate the implementation of community-based crime prevention efforts to establish self-help mechanisms (Sudiadi, 2015).

From the above description, it is revealed that engaging in crime prevention collectively is much more effective than preventing crime through environmental design, which has broad coverage. However, the awareness to prevent crime collectively often needs to be preceded by criminal incidents in the residential environment.

Issues, problems, and contexts related to CPTED are highly complex. Every CPTED intervention or design change has many impacts, and some of them are beneficial in terms of crime prevention. However, despite broad international support for CPTED, the results are not always positive. Some aspects of CPTED interventions can facilitate crime or decrease the quality of life.

Significantly, like many good theories, CPTED has a "dark side." The "dark side" of CPTED is multifaceted, complex, and substantially hidden. Highlighting the "dark side" aspects of CPTED is useful for addressing issues and learning from this perspective (P. Cozens & Love, 2017).

Programs or interventions consist of three central phases. Benefits (or the opposite) emerge as outcomes in phases 4 and 5. Phase 1 provides the foundational benchmark conditions. Program design and development or intervention occur in phases 2 and 3, and many programs are modified in phase 4. In program logic, each of the three phases of program development and implementation—phases 2, 3, and 4—has inputs and outputs.

Table 1. CPTED Phases, Inputs, and Outputs

Phases	Input	Ouput
Resource commitment	Crime data, fear of crime survey data, social data, political pressure, management decisions.	Resource commitment, program plan outline, project objectives, goals and expected results, budget; and overall timeline.
Program design	Guidance from Phase 2; human, technical, financial and informational resources.	Detailed written design of a ready-to-implement program; written evaluation and change strategy; detailed timeline; detailed budget; management strategy and plan.
Program implementation	Program design and implementation plan and management.	Implementation staff hired and managed to carry out implementation; resources used in implementation; implementation occurs, evaluation of implementation occurs; project completion process undertaken; reports written at three project stages.

The results of a program or intervention are external impacts and changes resulting from the implementation of the program or intervention in the environment. The outcomes of a program or intervention differ from the program's outputs. Outputs are internal products of the program's design and implementation, while outcomes are the sustained impacts on the environment resulting from the intervention. Successful interventions yield the expected results from the implemented intervention. However, an intervention might not produce any results, or the results may not be significant, even if the outputs are precisely as planned and specified. Worse still is when an intervention yields adverse results or outcomes contrary to expectations.

All of the above occurs when the process of designing and implementing an intervention has weaknesses or is based on incorrect information, assumptions, or principles. The "dark side" consequences in CPTED can occur in both the outputs and outcomes of the CPTED intervention project logic model. The program logic model, detailing the program's purpose (expected outcomes), inputs, outputs, and rationales explicitly, provides a convenient tool for exploring the "dark side" consequences of CPTED.

Identifying potential "dark side" aspects of CPTED in this way is beneficial for many aspects of CPTED and criminology. It establishes a strong foundation for identifying missing or incorrect data, assumptions, and flawed design and management planning; it also identifies where improvements are needed in criminological theory and CPTED principles.

In recent years, security privatization has created systems paid for by users, where crime prevention aspects in governance become part of the "function whether property owners, designers, or managers are willing and/or able to do so" (P. M. Cozens et al., 2005). The implication is that opportunities to reduce crime are not evenly distributed or available to the entire community.

The inclusion of crime prevention in governance has led to concepts such as the "war on crime." In "Governing Through Crime," Simon argues that promoting the "war on crime" concept has created a culture of fear and citizens' perception as crime victims (P. M. Cozens et al., 2005). For Simon, this facilitates governance by framing crime and crime prevention as one aspect of governance. This creates a potential "dark side" in CPTED's role in government governance, where CPTED-focused outputs can have adverse impacts on the quality of life that contradict the goals of good governance.

Failure to assess local crime risks and the sole application of CPTED as a method of rules and principles applied to the physical aspects of a location result in problematic CPTED outputs produced in a "one-size-fits-all" manner. This can lead to the "dark side" issues generated by CPTED, where a lack of alignment with crime risks and other factors can result in suboptimal quality of life outcomes.

The same factors also lead to misconceptions and incorrect beliefs that certain forms of urban design may align with CPTED principles and reduce crime more than others. This "dark side" of CPTED is elaborated in Cozens, where he draws attention to widespread but erroneous beliefs in CPTED and urban planning that high-density environments and permeable, multipurpose streets are associated with low levels of crime pollution (P. M. Cozens et al., 2005). In reality, in many cases, high-density environments and permeable, multipurpose streets are often associated with significantly higher crime rates than less dense, less permeable, and single-use environments.

### **Juridical Weaknesses of Crime Prevention Through an Environmental Design Approach in Suppressing the Crime Rate in Indonesia**

Crime prevention through environmental design is a crime prevention effort included in the formulation phase. As explained in the previous section, crime prevention through environmental design is a concept unfamiliar among law enforcement officials in Indonesia, considering that CPTED is a policy that requires prevention with data on the factors that drive criminals to commit crimes. According to the theory used by the author to support CPTED, the factors behind committing a crime include the perpetrator's motivation, suitable target, and the absence of adequate security measures (Setyawan & Larasati, 2021). From the explanation above, it is evident that CPTED is a crime prevention concept without legal regulations, and there is no applicable legal policy in Indonesia. Juridically, crime prevention in Indonesia only regulates certain crimes such as environmental crimes, capital market crimes, corruption crimes, monopoly and unfair business competition crimes, political crimes, narcotics crimes, money laundering crimes, and cybercrimes.

### **Practical Weaknesses of Crime Prevention Through an Environmental Design Approach in Suppressing the Crime Rate in Indonesia**

CPTED strategies have evolved over time. While many techniques have been used for hundreds of years, it was only in the last few decades that urban experts like Jane Jacobs and Oscar Newman explored the relationship between the built environment and criminal behavior (P. M. Cozens et al., 2005). Each CPTED strategy provides guidelines that property owners, builders, or renovators can apply to reduce fear and crime incidents while enhancing the quality of life. CPTED explains five crime prevention concepts through an environmental design approach, consisting of natural surveillance, territorial reinforcement, natural access control, maintenance, and activity support.

As for the elaboration of CPTED, it is as follows:(City Of Fort Wayne Indiana, n.d.)

## **a.Natural Surveillance**

Natural surveillance involves the observation of an area by humans. A criminal is less likely to commit a crime if they can be seen by others. The placement of windows, front yards, proper lighting, suitable building structures, and areas used by people is beneficial not only in preventing crimes but also in creating a sense of security for others who feel safe knowing that they can see and be seen by others (City of Fort Wayne Indiana, n.d.).

## **b.Territorial Reinforcement**

Physical design can create or expand influence. Users are encouraged to develop a sense of territorial control, while potential offenders who sense this control are discouraged. This concept includes features that define property lines and distinguish private spaces from public spaces, using landscape planting, road surface design, signage, and open CPTED fences (City Of Fort Wayne Indiana, n.d.).

Territorial reinforcement involves the use of physical barriers indicating ownership of a property through the use of fences, front yards, signs, sidewalk designs, and lighting. Territorial reinforcement should be designed to clearly show private spaces (City Of Fort Wayne Indiana, n.d.).

## **c.Natural Access Control**

Natural access control is another design concept primarily aimed at reducing crime opportunities by denying access to crime targets and creating a perceived risk for offenders. The community is physically guided through a space via road design, sidewalks, building entrances, landscape, and strategic environmental gateways. Design elements are highly useful for clearly indicating common routes and preventing access to private areas and structural elements (City Of Fort Wayne Indiana, n.d.).

## **d.Maintenance**

Lastly, maintenance and upkeep enable continuous use of space for its intended purposes. Deterioration and damage indicate a decrease in attention and control by users of a location and demonstrate a greater tolerance for disturbances. Proper maintenance prevents reduced visibility due to excessive plant growth and obstructed or non-functioning lighting, while also serving as an additional expression of territorial ownership. Inappropriate maintenance, such as excessive pruning of shrubbery, can hinder achieving the desired CPTED effects on the landscape. Communication about design intentions to maintenance staff is crucial for CPTED ideas to be effective (City Of Fort Wayne Indiana, n.d.).

Maintenance is crucial for CPTED. The Broken Windows theory is the basis of maintenance principles. Poorly maintained properties with broken windows, disturbances, graffiti, blocked vehicles, etc., convey the impression that the area is not owned by its inhabitants. Proper maintenance will protect the quality of life in an area (City Of Fort Wayne Indiana, n.d.).

## **e. Activity Support**

Another idea used to support CPTED is activity support. This idea involves placing events or activities in public areas intended for use by residents, customers, and other users, thereby preventing criminal activities. Organizing activity support when space usage is limited is most beneficial (City Of Fort Wayne Indiana, n.d.).



From CPTED, which explains five methods of crime prevention through environmental design approaches, including natural surveillance, territorial reinforcement, natural access control, maintenance, and activity support.

The implementation of the CPTED concept in practice, as outlined above, includes single-family residences, multi-family dwellings, neighbors, buildings and cities, schools, office buildings, commercial properties, hotels, banks and ATMs, and target hardening. The practical application of CPTED in Indonesia faces several inhibiting factors, as seen from the territorial concept, which requires a relationship between the will and ability of legitimate area users to defend their rights to an environment they inhabit by controlling the area and setting boundaries between residents and outsiders. From the basic surveillance concept, the community must be involved in designing an environment so that residents can be aware of activities happening in the environment and exercise sufficient surveillance over unfamiliar individuals entering the area. From the image and social environment concept, efforts should be made to build an environment or community that gives the impression of being inaccessible to criminals for committing crimes and avoids isolating the environment from the surrounding community.

## **Conclusion**

Crime prevention through environmental design (CPTED) approach in crime prevention policies in Indonesia has not been utilized. Indonesia is unfamiliar with the concept of crime prevention through environmental design in its crime prevention policies because CPTED is not known in the country. However, Indonesia is acquainted with the concept of Secure Guard Area, which offers areas with crime prevention mechanisms entirely entrusted to security personnel. In this concept, security personnel must possess the ability to control territorial areas, conduct surveillance, and depict a positive environmental image, enabling them to provide comfort and security to their assigned areas.

Weaknesses in the crime prevention through environmental design approach to curb criminality in Indonesia are categorized into three: theoretical weaknesses, juridical weaknesses, and practical weaknesses. The theoretical weakness lies in the fact that CPTED is a process, not an outcome, and in practice, the CPTED process often fails to adequately consider crime risks. Consequently, the compromised CPTED process leads to the improper application of CPTED principles based on inadequate input. Juridical weaknesses include the absence of legal regulations concerning CPTED. Practical weaknesses involve the territorial concept, which necessitates a relationship between the will and ability of legitimate area users to defend their rights within an environment, establishing controls by delineating boundaries between environment inhabitants and outsiders. Based on the basic surveillance concept, the community must be involved in designing an environment so that residents can be aware of activities occurring in the area and exercise sufficient supervision over unknown individuals entering the environment. Regarding the image and social environment concept, efforts must be made to build an environment or community that gives the impression of being difficult for criminals to access for criminal activities, avoiding isolating the environment from surrounding communities.

To address the theoretical and practical weaknesses identified in the previous chapter, it is hoped that the concept of crime prevention through environmental design can provide detailed explanations of its components, including natural surveillance, territorial reinforcement, access control, environmental image, and target hardening. In the context of Indonesia, there is a significant need for a specialized institution to oversee crime prevention programs through environmental design, whether in the form of an independent institution or an institution under the Department of Public Works and Spatial Planning in all regencies/cities in Indonesia.

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