



**TECHNIUM**  
**SOCIAL SCIENCES JOURNAL**

**Vol. 22, 2021**

# **A new decade for social changes**

**[www.techniumscience.com](http://www.techniumscience.com)**

ISSN 2668-7798



9 772668 779000

## Evaluation of Physical Security of Indonesian Formed Police Units' Garuda Camp in the Perspective of Crime Prevention Through Environmental Design

Anggraini Putri<sup>1</sup>, Chairul Murimann<sup>2</sup>, Ezra Aminanto<sup>3</sup>

<sup>1 2 3</sup>University of Indonesia, Jakarta, Indonesia

[madame.anggrainiputri@hotmail.com](mailto:madame.anggrainiputri@hotmail.com)

**Abstract.** Indonesia is one of the Police Contributing Countries (PCC) in the United Nations Peacekeeping Operations. Since 1989, Indonesia has deployed their police officers into various peacekeeping missions, either individually or in the units called Formed Police Units (FPU). In deploying the FPU, Indonesia as the PCC is not only responsible for preparing the personnel, but also equipping the FPU in logistics and infrastructure, which includes appropriate camps in the mission area. These camps have an important role as the operational and administrative base of the FPU, personnels accommodation, assets storage facility, and notably as the symbol of Indonesia's commitment to its contribution to world peace. Garuda Camp Indonesian FPU in MINUSCA, Central African Republic, was built in 2018 by the International Relations Division of The National Police with total assets more than 500 billion rupiahs. During the 2 years of placing the Indonesian FPU in MINUSCA, several security threats have occurred in this camp, such as theft and burglary. In this case, the camp security is an important element to ensure the Unit's success in performing its mission mandate. Therefore, the author sees the need for an evaluation using the perception of Crime Prevention Through Environmental Design (CPTED) to increase the level of security at Garuda Camp. This is based on CPTED which has a basic idea that proper and effective design in the use of the built environment can lead to a reduction in crime and fear of crime, as well as an improvement in the quality of life in an environment. The author explores threats and use qualitative methods to identify the compliance of physical security requirements in the camp. The result of the study shows that Garuda Camp is included in the medium level threat category. Thus, a threat prevention strategy is needed.

**Keywords.** Garuda Camp, threats, physical security, crime prevention through environmental design (CPTED)

### 1. Introduction

The United Nations Peacekeeping Missions (UNPM) is a mission that basically aims to help countries which experiencing difficulties in dealing with conflict toward a peace. At the beginning of its duty, UNPM performed the simple task of monitoring the truce process. As complexity developments in the mission area, UNPM has the following obligations:

1. providing protection to civilians affected by conflict or known as the Protection of Civilians (PoC),
2. carrying out the disarmament of former combatants,
3. providing protection over Human Rights,

4. promoting the law supremacy,
5. supporting free and fair elections,
6. minimizing the risk of land mines, and
7. handling other various duty complications, according to the area.

The first UNPM in 1948 was held in the Middle East and 71 UNPMs have been implemented until now.

Indonesia as a country that has a free and active foreign policy, has contributed to the UNPM. This has also been supported by the Indonesian National Police (POLRI) by assigning its personnel to various missions since 1989. Until 2021, POLRI has assigned 2737 peacekeepers, which are divided into Individual Police Officers (IPO) and Formed Police Units (FPU). In performing its duties, the IPO receives allowances from the United Nations (UN) which are managed independently by each individual for accommodation, consumption, and daily needs. Meanwhile, individual service equipment is provided by the POLRI Headquarters, which in this case is implemented by the International Relations Division (DRI). In contrast to the FPU whose assignments are in the form of unit ties of 140 personnel formed within the structure of their respective positions and duties, the preparation of this unit's assignments is more complicated than individual assignments. POLRI DRI, together with the POLRI Human Resources Staff, prepare the personnels with certain capabilities requested by the UN to participate in Pre-Deployment Training for approximately 6 months before being dispatched to one of the UNMPs. The Indonesian FPU was first assigned to UN Hybrid Operation in Darfur (UNAMID), Darfur, Sudan in 2008 and up until now has undergone 12 unit rotations each year. For making it easier to identify, each unit in charge is codified, namely the Garuda Bhayangkara Task Force (Garbha Task Force) FPU 1 who served from 2008 to 2009 until FPU 12, which is currently on duty until the end of 2021 at UNAMID.

In 2019, POLRI assigned the Indonesian FPU for the first time to UN Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA), Central African Republic. POLRI, in this case the POLRI DRI, is responsible for organizing the procurement process in the form of Major Equipment and Self Sustainment Equipment. The procurement includes unit accommodation whose specifications have generally been determined by the UN and contained in the MINUSCA Statement of Unit Requirement and the Contingent Owned Equipment Manual. In the terms of the accommodation preparation for the Indonesian FPU called Garuda Camp, apart from considering the budgetary aspect and the delivery of goods expeditions to the mission area, the security aspect is also a priority. This unit is also assigned through various Task Orders. In order for the Task Orders to be performed properly, the unit has to be able to manage the resources owned by both human resources and supporting equipment. These resources are entirely inside the Garuda Camp, which means that the camp must have an adequate level of security before ensuring that the unit can be tasked with providing security in the mission area.

Garuda Camp is categorized as an asset in the form of property, which if not managed properly in terms of security will cause loss, not only in the form of material but also in human resources. Furthermore, loss prevention includes asset protection which is the most important element in managing a company or organization (Runturambi & Sudiadid, 2013). In the procurement process, the Indonesian FPU assigned to the MINUSCA mission cost up to 490 billion rupiah. Not to mention the human resource assets in the form of personnel equipped with various UN-standard trainings, which if materially quantified have fantastic value. Since the beginning of the assignment of the Garbha Task Force FPU 1 to FPU 2 MINUSCA, it has been 2 years since Garuda Camp MINUSCA has been functioning.

However, based on the data, there have been several burglaries by local residents, which so far are known to have a background of economic need problems and cause material losses. If this problem is not immediately evaluated, there is a possibility that material losses can continue to increase and may result in fatal casualties, either directly or indirectly. In addition, departing from the mandate of the Protection of Civilian, the author argues that the Garuda Camp is not only functioned as an accommodation for Unit personnel, but also as an instrument for the protection of civilians in the event of an emergency disturbance. The theory of Crime Prevention Through Environmental Design (CPTED) can help identifying potential threats and disturbances at MINUSCA Garuda Camp. Furthermore, CPTED is based on the idea that states proper and effective design of the environment can lead to a reduction in crime and fear of crime, as well as an improvement in the quality of life in an environment. In other words, if a place in an environment is well-organized, the possibility of the place becoming a crime location can be reduced (Stollard, 1991).

## **2. Theoretical Studies**

### **Crime Prevention Through Environmental Design (CPTED)**

Crime Prevention Through Environmental Design (CPTED) is a multi-disciplinary approach to prevent criminal behaviors through environmental design. The CPTED strategy relies on the ability to influence the decisions of people who intend to commit offenses by preceding the impending crime through influencing the physical and social environment (Fennelly and Crowel, 2013). CPTED is also explained as a set of place-based strategies to reduce crime and increase security (Iqbal & Cettato, 2016). The aim of CPTED is to proactively prevent crime, as compared to the reactive and often ineffective strategies of the criminal justice system (police, courts, and corrections).

According to Clarke (in Fennelly, 2013), CPTED is the result of a simple idea which states that crime occurs in part because of the opportunities created by the physical environment. In this way, it will be possible to change the physical environment to reduce the opportunities for crime. The program of this concept does not focus on the solutions to develop universal crime prevention against human behaviors, rather on solutions centered on variables that can be manipulated and evaluated. The first generation CPTED has the principles that include:

- 1) Natural surveillance: the involvement of people to monitor the surrounding environment, which can be in the form of light, building forms that facilitate surveillance (use of windows), unblocked yards by plants, etc.
- 2) Territoriality: providing clear boundaries between public, private, and semi-private, and gives the impression of 'possessing' (use of fences, bordering the yard by using different paving from public roads, etc).
- 3) Access control: providing control over the accesses that people may pass to commit crimes, for example, using fences, padlocks, etc).
- 4) Target hardening: a long-established traditional crime prevention technique which increasing the effort and risk of offending and reducing the rewards associated with criminal acts.
- 5) Activity Support: using the designs and signs to encourage acceptable behaviors in the use of public spaces and "unsafe" activity places in the "safe" locations (which have a high level of activity and with surveillance opportunities).
- 6) Image of the place; an image or space management which seeks to promote a positive image and regular maintenance of the built environment to ensure the effective functioning sustainability of the physical environment, and also sends a positive signal to society.

Evidence of CPTED's crime-reducing principles is the application of CPTED based on case studies from individual projects and reviews. The evidence is presented as a subject of varying and quality problems from CPTED. However, it is known that the main problem with CPTED is the lack of further research to explore the development of CPTED (Cozens & Love, 2015).

### **Physical Security and Security Threat**

Physical security is a combination of physical measures and procedures designed to prevent or reduce threats or attacks on people, information, and physical assets (Fennely, 2003). In connection with this, Harris (2013) explains that physical security aims to protect people, information, equipment, systems, facilities, and assets. The methods chosen to establish physical security of assets are scope of design and layout, environmental components, emergency response preparedness, training, access control, intrusion detection, power, and fire protection (Harris, 2013).

Physical security always uses defense in depth approach (Oriyano, 2014) to strengthen security through different controls. This approach is used to secure assets and protect lives through multiple layers of security. If the attackers compromise with one layer, they still have to break through the additional layer to get the assets. These multiple security controls in multiple places make it difficult for attackers to gain valuable organizational resources. Physical security needs to plan on how to protect the lives and facilities of human resources. The first priority of physical security is to ensure that every human resources, such as personnels, are in a safe condition. The second in securing company assets and restoring the information technology (IT) operations in the event of a natural disaster (Hutter, 2016). This physical security also detects, prevents, and overcomes security threat.

The concept of threat is often interpreted as something that has a negative connotation. The reason is because the outcome of the case is potentially a dangerous threat, where there will be an intentional loss (Battistelli, 2018). From an etymological point of view, the concept of threat recorded in The Oxford Compact Thesaurus is interpreted as intimidating comments, warnings, dangers, threat statements, and possible risks. Koschnik (1992) describes a threat as the communication of an unpleasant alternative to an individual or a group by an authorized person or an impostor (in Smith & Brooks, 2013).

In the context of security, security threat can be understood as an important component of security risk management as the center to understanding, managing, and implementing security risk. To some extent, a threat may enable something to happen that could affect people, information, or assets. In the security risk context, the threat is better defined as a threat, being the sum of intent and capability. On the other side, threat can also be taken as any indications or conditions that have the potential to cause assets' loss or damage (Smith & Brooks, 2013).

### **3. Methods**

The qualitative approach helps the author to overcome the problem of writing that has no variables and the need to explore. Literature related to previous researches is a weakness for the author, with the result of that qualitative writing can be used for studies that produce little information about the phenomena (Creswell, 2009). In addition, exploratory writing is used to maximize the discovery of generalizations that leads to the description and understanding of phenomena (Stebbins, 2001). The context of the writing refers to the description and in-depth exploration of the context of potential disturbances that will occur at Garuda Camp, so the patterns of prevention will be found in the potential disturbances that will occur.



Primary data sources through unstructured and in-depth interviews were conducted to the Head of the International Mission Bureau of the POLRI DRI, the Head of the FPU 1 MINUSCA Task Force, the Head of the MINUSCA FPU 2 Task Force, the Head of the Operational Section of the FPU 1 MINUSCA, and the Planning and Construction Contractor for the Physical Design of Garuda Camp. Then, in the data processing, the author will start from specific and detailed data obtained through transcripts or filed notes written during interviews, then applying code related to the general theme of writing (Creswell, 2009). In addition, the author will conduct an analysis as outlined in the form of a description and thematic. In the last part, an in-depth explanation of the results of the writing through the final interpretation, such as conclusions and implications of writing, is given.

#### 4. Result and analysis

##### Garuda Camp Factual Conditions

MINUSCA's Headquarters is in the Bangui City, Central African Republic in the middle of a cluster commonly known as the UN Super Camp. The complex has a territorial boundary in the form of a fence and a trench that surrounds its territory and is equipped with a complex entrance gate guarded by the designated officers. Garuda Camp is outside the cluster, even though it is exactly adjacent to the outermost fence of the super camp. Separated by a road, Garuda Camp MINUSCA borders a village of residents known as the village of criminals. This becomes a vulnerable point for the camp security which is one of Indonesia's representations, besides the camp owned by peacekeepers from the Indonesian National Army (TNI).

Image 1 Super Camp Location in Bangui, Central Africa

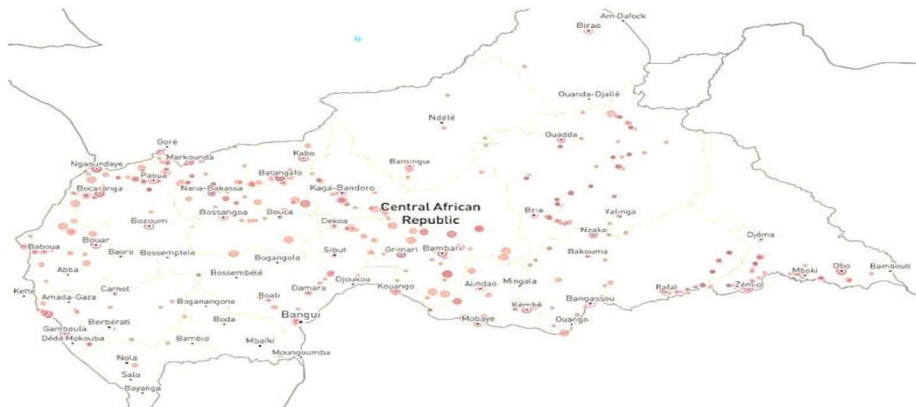


Source: Google Earth (2021)

The situation in Bangui City itself can be categorized as high risk of conflict. Data shows that various rebellions resulting in death have occurred in Bangui. At first, the conflict that occurred in the Central African Republic started at the beginning of the country's independence. The situation worsened in 2013 due to an rebellion by groups who wanted to overthrow President Francois Bozizé at that time. From December 2012 to March 2013, the attempts to overthrow President Francois Bozizé were carried out by the Seleka rebel group. Since then, the African Republic has experienced a prolonged crisis. In addition, there was a backlash from organized self-defense groups known as Anti-balaka who opposed the rule of the Seleka group. The Anti-balaka group also attacked the Seleka group on December 5, 2013 and resulted in massive violence in which thousands of civilians were killed and hundreds of thousands of people fled (Dukhan, 2016).

Global Conflict Tracker (2019) presents data showing that there are 2.9 million people who need humanitarian assistance and there are 581,362 civilians who are internal refugees. Moreover, the International Peace Information Service (2018) explains that civilians are often becoming the target of violence resulted from conflicts between armed groups and international forces or government authorities.

**Image 2 Mapping Violence Against and Among Civilians  
Between January 2015 to December 2017**



Source: International Peace Information Service (2018)

**Image 3 Garuda Camp Garbha FPU Task Force at MINUSCA  
in Bangui, Central Africa**



Source: Google Earth (2021)

The Garuda Camp of the Garbha Indonesian FPU Task Force at MINUSCA in Bangui has seven control towers. Three of them face the streets and civilian settlements known as the residences of criminals in the city of Bangui. The other two are placed at the left and right of the camp, and the last two face the border with the Super Camp. In the design process, it is hoped that, with these seven control towers, the situation around the camp will be monitored so that various actions that can cause loss can be avoided.





Image 4 Landscape of Garuda Camp

Source: Blueprint Garuda Camp MINUSCA (2018)

Garuda Camp also has 29 rooms which have each respective function. Referring to Newman's approach regarding defensible space, the layout of space and territory must produce a clear delineation between public, semi-public, private and semi-private spaces (Reynald & Elffers, 2009). According to an interviewee who became the contractor (K1) of Garuda Camp, the physical design at that time was only designed for semi-private boundaries that did not interfere with the security and comfort of the troops there. However, according to Newman, clear boundaries are needed for certain rooms, because they have an impact on adjusting the security strategy for each of these rooms.

Therefore, public in the context of this writing is an area that can be accessed by FPU officers and certain people, such as guests. Semi-public is an area that can be accessed by several officers who have certain permissions and access. Semi private is an area that can only be accessed by the individual who is the owner of the room. Other than that, private is a space that can only be accessed by certain groups and has high security. The following is a table of identification of room layouts at Garuda Camp, which is based on defensible space approach.

Table 1 Identification of Space Layout at Garuda Camp

No	Room name	Public	Semi-Public	Semi-Private	Private
1	Troops residence			✓	
2	Commander's residence				✓
3	Guest residence type-a			✓	
4	Guest residence type-B			✓	
5	Office		✓		
6	Troops toilet		✓		
7	Dinning & Kitchen		✓		
8	Food storage room			✓	
9	Garage		✓		
10	Entrance post			✓	



11	Observation towers			✓	
12	Parade yard	✓			
13	Street light	✓			
14	Main gate		✓		
15	Function room		✓		
16	Sport facilities		✓		
17	Clinic		✓		
18	Doctor residential			✓	
19	General storage		✓		
20	Mosque, Hinduist, Vihara and Church		✓		
21	Office storage		✓		
22	Ammo storage				✓
23	Fitness Center		✓		
24	Repair & maintenance			✓	
25	Genset & IT area			✓	
26	Power plant			✓	
27	Wast water treatment & supply			✓	
28	Laundry room		✓		
29	Platoon a storage			✓	

Source: processed by the author (2021)

Inside the Garuda Camp area there are several facilities and assets related to personnel activities owned by Garuda Camp. The assets in this context are people, property, and intangible property or information (Fennelly, 2014). The assets owned by Garuda Camp include: 1) human assets in Garuda Camp consist of FPU Task Force personnel in the amount hundreds of people. Among them are personnels who have the rank of Police Chief Commissioner to Non-Commissioned Officers (NCO). Human assets can also be in the form of guests visiting Garuda Camp who are high-rank officers at the level of the POLRI General, or UN officials who carry out official visits; 2) property assets that have a value of around 490 billion; 3) intangible property assets, including security information, personnel on duty documents, and other confidential documents.

Establishing context becomes the significant element in terms of risk management that includes defining the scope and establishing criteria that form the basis for risk evaluation. This step defines the basic parameters, where risks are identified, evaluated, and mitigated (Smith & Brooks, 2013). In the case of this writing, context setting is brought by identifying and setting criteria related to the boundaries and factual conditions that exist in Garuda Camp. With the identification of this context, the writing will focus on the existing factual limitations and conditions. To achieve this, there must be an evaluation of internal and external factors. Thus, in the identification process, the author uses a Strength, Weakness, Opportunity, and Threat Analysis (SWOT). This simple technical analysis will provide an overview of the current condition of Garuda Camp. The following is the result of the worksheet based on the data findings and reprocessed by the author.

Table 2 Garuda Camp SWOT Worksheet

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• In the organizational structure of the FPU there is a platoon of security camp</li> <li>• Has adequate human resources</li> <li>• Personnels are equipped with equipment and weapons to perform tasks</li> <li>• There is an observation post that will monitor for 24 hours</li> <li>• Using technology in the inspection system</li> <li>• Has a security perimeter system that complies with UN standards</li> </ul>	<ul style="list-style-type: none"> <li>• There is a closed-circuit television (CCTV) that is damaged and the specifications are not suitable</li> <li>• There are still blind spots in the CCTV monitoring area</li> <li>• Surveillance is performed in three shifts so that personnel negligence appears</li> <li>• Pre-construction planning is not compatible with the standard</li> <li>• There are no adequate supporting detection facilities yet</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Full support related to facilities and infrastructure from UN</li> <li>• UN gives full authority to increase security capacity</li> <li>• Camp location is in the capital and is close to MINUSCA headquarters and other country camps</li> </ul>	<ul style="list-style-type: none"> <li>• Human threats in the form of minor crime</li> <li>• Human threats in the form of conflict and violent crime</li> <li>• The social and economic conditions of the society around Garuda Camp</li> </ul>

Source: processed by the author (2021)

The conditions above show the current strengths that exist in the physical design and the elements that support activities at Garuda Camp do not remove the possibility of creating weaknesses, or even not being able to anticipate the weaknesses themselves. For example, Interviewee 2 (N2) stated that Garuda Camp has strength in terms of organizational structure and adequately trained human resources. However, on the other side, N2 also explained that the human resources at Garuda Camp often become negligent due to the surveillance activities in three shifts which consume quite a lot of energy. Whereas, human resources are one of the important assets owned by a company and, especially in security issues, are the first element to undertake prevention to prosecution. This is equal with Perdikaris (2014) who states that security personnels play a central role in all layers of security. All of the technology used is only adding the physical security. Without human resources, the security system will be useless. Ideally, to create human security, the strengths contained in Garuda Camp should be maximized, thus the weaknesses will not exist.

In addition to human resources, strengths in the context of the use of CCTV become contradiction which actually creates weaknesses against Garuda Camp itself. Ideally, a security perimeter such as CCTV provides a surveillance aspect to monitor behavior, activity, or other

information that may change (Fennelly, 2014). The strengths contained in CCTV are not properly maximized by Garuda Camp and instead created weaknesses. This problem, according to Smith & Brooks (2013), is caused by skills and technical use that are not considered properly in using the CCTV system. Thus, the CCTV does not provide significant benefits, especially in the terms of detection. In accordance with the facts in the field, the use of the CCTV system is not adapted to the needs based on the geographical conditions in Bangui, so the strength that should be possessed by Garuda Camp is actually a weakness.

Furthermore, it is also found that the strengths, which are claimed to be related to the security parameter system complies with international standards, actually encounter weaknesses for Garuda Camp. Conditions in the field indicate that the perimeter, such as a wire barrier, tends to be easily damaged and has a fairly high vulnerability. According to Smith & Brooks (2013) the conditions mentioned are caused by the imperfect fence perimeter as a physical barrier. On the other side, other types of wire and perimeter that are not suitable for environmental conditions will be vulnerable to cutting and tend to have construction quality that can be easily interfered. Therefore, the strengths possessed by Garuda Camp have to be maximized according to the environment and conditions in Bangui. The perimeter of the barrier needs to be considered according to the function and the type of attack to be dealt (Smith & Brooks, 2013).

Moreover, the existence of threats that cause harm to Garuda Camp indirectly proves that the elements of strengths and opportunities possessed by Garuda Camp are not being maximized properly. It is true that security threats and risks will be more difficult to overcome because the perpetrators will try to use various modes to penetrate security strategies (Smith & Brooks, 2013). Then, the strengths and opportunities that are owned must be utilized, and threats must be dealt with identifying the threat itself.

### **Threats Analysis at FPU MINUSCA Garuda Camp**

Threats are considered as possibilities that can affect human, asset, and information. In addition, the threats also have the potential to cause loss or damage to assets. Understanding the threat requires comprehending the perspective of the perpetrator, in terms of intentions and motives, and the ability of the perpetrator to sacrifice the asset in question (Roper, 1999). Threats and their agent (perpetrator) cannot be separated because the threat agent is the cause of threats to occur. In connection with this writing, threats can be classified as coming from human or nature. The determination of the threat level will use Australian Standards (2009). The following is the formula for determining the threat:

$$\text{Threat} = \text{Intent} \times \text{Capability}$$

Intent and capability relate to adversaries or agents associated with threats to take actions that will result in harm or suspected harm to certain individuals, groups, organizations or certain communities (Australian Standards, 2009). To determine the intent, an in-depth analysis of expectation and desires is required. Meanwhile, determining capability is taken with conducting analysis related to resources and knowledge.

Related to intent, it also includes the motivations that drive individuals to commit evil traits and behaviors. Motivation in the context of writing is also found relating to the economic choice (Buonanno, 2003). This economic approach assumes that most criminals are rational decision makers between the benefits obtained when committing a crime, compared to the punishment that will be obtained for the perpetrator (Buchanan & Hartley, 1992). In accordance with this, Cornish and Clarke (1986) in their theory explain that criminals seek the benefit for themselves by committing crimes. However, before that, the criminals do the calculations first. This main calculation element involves the cost-benefit analysis: pleasure versus pain or

hedonistic calculus. The criminals will do a cost benefit analysis which then affects the opportunities and risks they will get from the actions they take (Gul, 2009). The conditions above are in line with the author's findings, where criminals have been motivated by economic choices. Interviewees also support that the perpetrators of the crime are highly well-motivated.

In terms of the crimes perpetrators' actions in Bangui, it can be identified that the risk of punishment from the crimes committed is not proportional to the behavior of the crimes committed. In the findings, the perpetrators of theft, pickpocketing, and burglary, are motivated to commit the crimes because they understand that even if they are caught by MINUSCA entities, whether civilians, police, or military, they will not receive repressive actions. This is not like other criminals in general, who often receive strict action or even vigilante action when caught by local residents. In addition, the people of Bangui generally understand that the MINUSCA entities will receive the severe sanctions when reports are received from the local community regarding human rights violations, harassment, or other actions that are considered to be against the rules set by UN. This reason makes the UN peacekeepers prefer to avoid dealing with local residents outside the task order received. This is in accordance with the explanation of Wellsmith & Burrell (2005) that before choosing to commit a crime, the perpetrator evaluates the risk of fear, the severity of the unexpected punishment, and the potential value from someone who has committed a crime.

Thus, the intent element in this writing shows that the perpetrators of the crime are well-motivated relating to economic choice. With this motivation, the perpetrators have an understanding of the opportunities and risks that will be faced after committing a crime. The findings of the data also show that the actors are motivated by economic conditions, and, on the other side, there is an environmental design that has not been maximized at Garuda Camp. This clearly raises high hopes for perpetrators against the cost benefit that is obtained when the perpetrators commit a crime.

In addition to intent, to determine the level of threat, the perpetrator has sufficient capability related to crime. The fulfillment of capability elements can be seen through the resources and the possessed knowledge. Resource-related matters may include personnel and equipment (Smith & Brooks, 2013). It is found that the perpetrators of theft, burglary, and pickpocketing in Bangui have the experienced human resource capacity to commit crimes. The capacity of these human and material resources can also perpetuate criminal activities and affect their success (Golhasani & Hosseinirad, 2016).

Furthermore, the low knowledge of norms and values of orderliness that are smaller than knowledge of deviant behaviors can also influence agents of threats to commit crimes. It is also found that the people who live in the Garuda Camp area are a *communautaire de combatant* environment, thus there are values that refer to social disorganization such as deviant behaviors and acts of violence. According to writing by Braga and Clarke (2014), there is a potential for certain types of crime or high levels of crime to be found in the communities with relatively deprived, low socioeconomic status, and lack of economic opportunities (social disorganization) that can affect individual criminality.

Knowledge in this context can also be in the form of experience, cognition, expertise, and skills that are used as human assets. This element of knowledge is obtained through various accesses, which one of them is through aggregation, where the resources such as knowledge possessed by individuals or groups are spread into collective resources that can be allocated by actors. On the other side, the element of knowledge can be generated from learning with the deviant social groups. This is based on Sutherland's explanation (in Siegel, 2012) that when an individual makes contact with a social group who performs criminal activities, in the process of this contact, learning process will occur for the individual to also perform criminal activities.



This condition is in accordance with the situation of the community around Garuda Camp, where the young people are members of criminal activity groups.

From the explanation above, an overview of the causes of the emergence of threats around Garuda Camp can be given. It is observable that the design of the physical environment of Garuda Camp cannot anticipate deviant behaviors and criminal activities. This also happens due to a solid and a significant element of intent for the perpetrators, which on the other side, the perpetrators have the capability that can encourage the members to continue to take illegal actions. Based on the conditions above, the threat level at Garuda Camp is as follows.

**Table 3 Threat Level Evaluation at Garuda Camp**

Threat Actor		Threat Actor Motivation	
Developed in a social disorganization environment and experienced a learning process of deviant behavior		Economic choice and considering the opportunities, risk, and cost benefit of committing a crime	
Resource	Knowledge	Desire	Expectation
Low	Low	Medium	Medium
Capability		Intent	
Moderate		Expressed	
Threat Level		Medium	

Source: processed by the author (2021)

### Identification of CPTED Principles

CPTED or Crime Prevention Through Environmental Design becomes one of the methods used to formulate an environmental design that can support the level of security of a building. CPTED does not only discuss about the security against damage or loss, but also looks at how human activities are closely related to the occurrence of damage or loss (Runturambi & Sudiadid, 2013). In general, CPTED focuses on three things, 1) mechanical measures, also known as target hardening; 2) human and /or organization measures which focus on teaching individuals or groups to take care of themselves; 3) natural measures, which designing spaces and ensuring that the whole environment can prevent loss or damage to the assets. In the context of writing over Garuda Camp, the CPTED principles will be a feature that can identify security, safety, and comfort (Iqbal & Ceccato, 2016). Thus, the author summarizes the entire inventory of CPTED (territoriality, access control, activity support, natural surveillance, target hardening, and image of the place) based on the results of interviews and the physical design of the Garuda Camp.

The principle of territoriality includes clear boundaries between public, private, and semi-private, and gives the impression of 'possessing' (use of fences, bordering the yard by using different paving from public roads, etc.). Then, an inventory on the principle of surveillance includes the involvement of people to monitor the environment, which can be in the form of light, building forms that facilitate surveillance, such as the use of windows, light, increasing the viewing area from inside the building, and a yard that is not blocked by plants (Atlas, 2013). Regarding the principle of access control, it includes control over the accesses that people may pass to commit crimes, for example, using fences, padlocks, etc. In addition, the purpose of implementing access control is related to restricting visitor access and reducing entry and exit access. The principle of target hardening includes efforts to make it more difficult for perpetrators to commit crimes, which can also be done by strengthening perimeter security or detection systems for people's movements. In case an attack or crime occurs, target hardening can reduce the occurrence and severity of injuries and life loss (Atlas, 2013). The principle of

image of the place includes a positive image and regular maintenance to ensure the physical environment is sustainably effective and sends a positive signal to all users.

The data findings show that at Garuda Camp the principles of territoriality, surveillance, and access control are clearly visible. However, the principles of target hardening and image of the place are still unclear. In addition, the principle of activity support is found to be inadequate because the social and community conditions in Bangui greatly influence the security strategy. Another relevant issue is the perimeter, however, the current physical design and the type of perimeter is not sufficient to protect Garuda Camp and its assets.

**Table 4 Overall Inventory of CPTED Principles in Garuda Camp**

CPTED Principles	Visible	Limited	Not Visible
Surveillance	✓		
Teritoriality	✓		
Access control	✓		
Target hardening		✓	
Activity support			✓
Image of the place		✓	

Source: processed by the author (2021)

✓ refers to the presence of this specific CPTED principle once observed in the fieldwork in Garuda Camp

**Table 5 Evaluation of CPTED Principles at Garuda Camp**

CPTED Principles	Advantages	Challenges
Surveillance	<ul style="list-style-type: none"> <li>• Light that surrounds and spreads in the Garuda Camp area</li> <li>• Availability of 7 surveillance posts and 1 main gate checkpoint</li> <li>• Has many CCTV points</li> <li>• Not too much blocked by plants and not obstructing the surveillance activities</li> </ul>	<ul style="list-style-type: none"> <li>• The CCTV system is not adapted to the type of needs and geographical conditions</li> <li>• The perimeter of the control post need to be strengthened</li> <li>• The building design still blocks other buildings</li> </ul>
Teritoriality	<ul style="list-style-type: none"> <li>• Having real barrier in the form of fences and gates</li> </ul>	<ul style="list-style-type: none"> <li>• There are no clear boundaries between public, semi-public, semi-private, and private</li> <li>• The absence of symbolic barrier</li> <li>• The perimeter of fences and gates need to be strengthened</li> </ul>
Access control	<ul style="list-style-type: none"> <li>• Has authorized access control</li> </ul>	<ul style="list-style-type: none"> <li>• The need for authorized access control for places</li> </ul>

	<ul style="list-style-type: none"> <li>• There is one access door as the exit and entry</li> <li>• Natural barrier helps create boundaries</li> </ul>	that are classified as semi-private and private
Target hardening	<ul style="list-style-type: none"> <li>• Has a perimeter that can ward criminal threat off</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter is not designed to deal with the specific natural threat and criminal threat</li> </ul>
Activity support	<ul style="list-style-type: none"> <li>• Full cooperation and support from the UN encourages the providing of assistance related to the security facilities and infrastructures</li> </ul>	<ul style="list-style-type: none"> <li>• Not having good social cohesion with the community causes target hardening, territoriality, and surveillance to be less effective</li> </ul>
Image of the place	<ul style="list-style-type: none"> <li>• There is regular maintenance</li> <li>• Responsiveness to the post-threats</li> </ul>	<ul style="list-style-type: none"> <li>• The community does not see Garuda Camp as a security site, but instead create crime attractors</li> </ul>

Source: processed by the author (2021)

The strengths and challenges of the CPTED principles at Camp Garuda application are summarized in table 4.5. As previously explained, Camp Garuda is a home and an activity facility for the security personnels who already have a mandate as peacekeepers. Thus, to fulfill the duties and functions, it is necessary to have facilities and infrastructures that include the principles of security for the assets in the Camp, or Garuda Camp itself.

After identifying and evaluating the CPTED principles at Camp Garuda, it appears that there are still many deficiencies and challenges. On the other side, Camp Garuda faces a high threat level. When the analysis of CPTED principles is taken, it consistently reveals that crime threat concentration is directly related to physical design and security strategy (Iqbal & Ceccato, 2016). With the conditions above, CPTED seeks to optimize opportunities to provide surveillance by clearly defining the principles that must be met (Cozens and Love, 2015). Moreover, the CPTED used is the first generation CPTED which is focused on space and location to reduce crime. The first generation CPTED emphasizes the principles of eliminating undefined spaces, ensuring all spaces have a clearly defined purpose, and are regularly maintained and monitored (Richard & Mazerolle, 2008). Thus, a threat prevention strategy is needed based on the fulfillment of CPTED principles.

## 5. Conclusion

Garuda Camp FPU MINUSCA is located in the conflict area of Bangui, Central African Republic, where every day it faces a number of real threats. On the other side, Garuda Camp has to be an infrastructure that can protect existing assets, ranging from human assets, property assets with a value of 490 billion, and intangible assets. To fulfill the duties and functions, it is necessary to have an infrastructure that includes the principles of security for the assets in the Camp, or the Garuda Camp itself.

Based on the identification and evaluation of the CPTED principles at Garuda Camp, it appears that there are still many deficiencies and challenges such as the medium level threat to the camp. When the analysis of CPTED principles is taken, it consistently reveals that crime threat concentration is directly related to physical design and security strategy (Iqbal & Ceccato, 2016). With the conditions above, CPTED seeks to optimize opportunities to provide surveillance by clearly defining the principles that need to be fulfilled (Cozens and Love, 2015). Moreover, the CPTED used is the first generation CPTED which is focused on space and location to reduce crime. The first generation CPTED emphasizes the principles of eliminating undefined spaces, ensuring all spaces have a clearly defined purpose, and are regularly maintained and monitored (Richard & Mazerolle, 2008). Thus, the next step is to design a physical security prevention strategy at Garuda Camp, which is based on the implementation of CPTED principles.

It should be noted that the findings of the data show that the Garuda Camp, which stands in Bangui, was built based on the assumption of a security situation, not on the results of a survey or a security evaluation. Therefore, the author emphasizes the aspect of reconnaissance visit or an initial survey of the construction site of the camp is necessary at the building planning step. This is intended so that the in-depth analysis, especially in the security sector, is taken. In this case, it is recommended to POLRI Headquarters to examine the budget for the implementation of this survey, not just in a form of formality. When in the middle of the planning process, there is a special situation such as negotiating a location change as happened in the early steps of the construction of the Garuda Camp on the MINUSCA mission, and the survey should be taken again at the negotiated new location.

## References

### Journal

- [1] Battistelli, F. (2018). Dangers, risks and threats: An Alternative Conceptualization to the Catch-all Concept of Risk. *Current Sociology* 1-15.
- [2] Buchanan, C., & Hartley. (1992). *Criminal Choice: The Economic Theory of Crime and Its Implications for Crime Control*. Centre for Independent Studies.
- [3] Buonanno, P. (2003). *The Socioeconomic Determinants of Crime. A Review of the Literature*. Working Papers 63, University of Milano-Bicocca, Department of Economics, revised Nov 2003.
- [4] Braga, A. A., & Clarke, R. V. (2014). Explaining high risk concentrations of crime in the city: Social disorganization, crime opportunities, and important next steps. *Journal of Research in Crime and Delinquency*, 51(4), 480–498.
- [5] Clarke, R. V., & Cornish, D. (1985). Modeling offenders' decisions: A framework for research and policy. In N. Morris, & Tonry, *Crime and Justice: An Annual Review of Research*, Vol. 6. . Chicago, University of Chicago.
- [6] Dukhan, N. 2016. *The Central African Republic crisis*. Birmingham, UK: GSDRC, University of Birmingham.
- [7] Golhasani & Hosseinirad. 2017. The Role of Resource Mobilization Theory in Social Movement. *International Journal of Multicultural and Multireligious Understanding*
- [8] Gul, S. (2009). An Evaluation of Rational Choice Theory in Criminology. *Journal of Sociology and Applied Science*, 4(8).
- [9] Iqbal, A., & Ceccato, V. (2016). Is CPTED Useful to Guide the Inventory of Safety in Parks? A Study Case in Stockholm, Sweden. *International Criminal Justice Review*.
- [10] Wellsmith, Melanie and Burrell, Amy, *The Influence of Purchase Price and Ownership Levels on Theft Targets: The Example of Domestic Burglary* (September



2005). The British Journal of Criminology, Vol. 45, Issue 5, pp. 741-764, 2005,  
Available at  
SSRN: <https://ssrn.com/abstract=905427> or <http://dx.doi.org/10.1093/bjc/azi003>

### Book

- [1] Atlas, R. I. (2013). 21st century security and CPTED : Designing For Critical Infrastructure Protection And Crime Prevention. CRC Press.
- [2] Cozens, P. & Love, T. 2015. A Review and Current Status of Crime Prevention through Environmental Design (CPTED). Curtin University, Kent Street, Perth, Western Australia: Sage Publication
- [3] Creswell, J. W. (2009). Research Design: Qualitatives and Quantitatives Approaches 3rd Edition. California: Sage Publications Inc
- [4] Fennelly, L. J. (2014). Handbook of Loss Prevention and Crime Prevention 4th Edition. Elsevier Inc.
- [5] Harris, S. (2013). Physical and Environmental Security. In CISSP Exam Guide (6th ed., pp. 427-502). USA McGraw-Hill.
- [6] Koschnik, Wolfgang J., 1992: Standard Dictionary of the Social Sciences (München – London – New York – Paris).
- [7] Hutter, D. (2016). Physical Security and Why It Is Important. SANS Institute
- [8] Olenewa, J. (2014). Radio Frequency Identification and Near-Field Communication. In Guide to wireless communications (3rd ed., pp. 392-395). Boston, MA: Cengage Learning.
- [9] Perdikaris, J. (2014). Physical Security and Enviromental Protecion. CRC Press.
- [10] Reynald, D. M., & Elffers. (2009). The Future of Newman's Defensible Space Theory : Linking Defensible Space and The Routine Activities of Place. London: Sage Publications.
- [11] Richard, W., & Mazerolle. (2008). Environmental Criminology and Crime Analysis. Canada: Willan Publishing.
- [12] Roper, C.A., 1999. Risk Management for Security Professionals. Butterworth-Heinemann, Boston.
- [13] Runturambi, J. S., & Sudiadid, D. (2013). Potensi gangguan, Karakteristik Lokasi dan Desain. Jakarta: Penerbit Universitas indonesia.
- [14] Siegel, Larry. 2012. Criminology 11<sup>th</sup> edition. Wadsworth Publishing
- [15] Smith, C., & Brooks, D. (2013). Security Science : The Theory and Practice of Security. Butterworth-Heinemann.
- [16] Standards Australia, 2009. AS/NZS ISO31000:2009 Risk Management—Principles and Guidelines. Standards Australia International Ltd, Sydney.
- [17] Stebbins, Robert. 2001. Exploratory Research in the Social Sciences: What is Exploration? SAGE Publications, Inc.
- [18] Stollard, P. (1991). Crime Prevention Through Housing Design. London: Chapman & Hall

### Website

- [19] Global Conflict Tracker. (2019). Violence in the Central African Republic. Retrieved from cfr.org: <https://www.cfr.org/global-conflict-tracker/conflict/violence-central-african-republic>
- [20] United Nation. (2018). MINUSCA. Retrieved from <https://peacekeeping.un.org/en/mission/minusca>