Plans to cope with Theft in Agricultural Areas in Korea in the use of CPTED Strategies

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ABSTRACT

This study has identified the current status of theft occurring in agricultural areas in Korea and suggested CPTED techniques as a plan for coping with them. In order to achieve the objective of this study, the current status of theft for crops and farming tools occurring in agricultural areas in Korea through related statistics and literature while providing realistic plans for coping with theft of crops in agricultural areas in Korea by proposing the application of suggested CPTED.

Agricultural areas in Korea have poor crime preventing facilities compared to urban areas. As there has recently been an increase in the proportion of second class citizens among the population in agricultural areas, their environment has become more weakened against crime.

Furthermore, unlike crops that were produced in low value in the past, there is a high proportion of recently produced crops in high value. In addition, as crops are produced in the use of machines, crops and machines that are kept in agricultural areas are highly valuable. Furthermore, weak environment against crime has made it convenient for thieves to commit crime.

In fact, according to the data from the National Police Agency, there were 5,318 cases of theft of agricultural and stockbreeding products in the past five years, and it was reported that the scale of damage reached 56.5 billion KRW.

In order to solve such issues, police have introduced CPTED techniques to prevent the theft upon trespassing and property crime in Korea since the 2000s to actively support them. CPTED techniques are to improve the environment that is exposed to high possibility of crime and to make it difficult to commit crime. Therefore, it is the method to prevent crime by completely defending the targets of criminals.

In order to prevent theft crime in agricultural areas in Korea with poor crime coping ability due to aging without protective instruments on highly valuable crops, this study has suggested the method in the use of CPTED

Keywords: Crops, theft, crime prevention, CPTED
1. Introduction

Since the 1990s, population in agricultural areas in Korea has been decreasing. Therefore, laborers came to Korea from foreign countries to supplement it, or agricultural technology has been used to increase productivity with various methods for producing crops for low-cost and high-efficiency that small-sized warehouse was required. However, due to recent increase in productivity in crops, there has been an increasing trend of theft in agricultural areas stealing expensive farming tools that are used for saving or producing crops.

Increase in the theft of crops in agricultural areas seems to be much influenced by a weak environment in coping with theft. Low ability of coping with crime in agricultural areas from highly valuable crops and aging population and intention of burglars are all causing frequent large scale theft crime in agricultural areas in Korea since the 2000s.

In spite of them, the reason why theft of crops in Korea has not been paid much attention so far is because of relatively insufficient researches conducted on the current status of crime in agricultural areas even though criminal issues in cities have been studied with much interest in the academic field of crime[4]. This might point out how researches on the prevention and control of crime in cities from urbanization were urgent as an important cause. However, another cause is that there has been lack of interest from mainstream in society and financial support on the social alienation including women, the handicapped, homosexuality, abortion, and agricultural areas[2].

Above all, there has not been relatively much of a concern on damages from crimes as agricultural areas received less attention even though crime occurred, and people have not recognized how serious it has been to have crimes in the areas.

Therefore, this study has identified continuously increasing theft of crops in Korea and researched about how to apply CPTED strategies in agricultural areas as a plan to cope with such issues.

2. Materials and Methods

2.1 Survey Process

In order to achieve the objective of this study, research has been conducted with following methods. In order to identify the current status of theft crime in agricultural areas, the current status and damage of theft crime of crops occurring in agricultural areas have been identified based on the 'Real conditions of Farmers and Fishermen in 2017'.

According to the previous studies on theft crime, characteristics of theft crime and burglars were identified. CPTED strategies were suggested as a plan for coping with them while reviewing the previous studies and cases of application on the CPTED strategies and discussing about how to apply CPTED strategies.

2.2 Crop theft in Korea and property of Theft

According to the Article 329 of [Criminal Law] in Korea (Theft), "theft' is defined as a behavior for stealing objects of others." Theft is a crime that occurred from the history of mankind that about 2 hundred thousand cases have been reported a year.
Most of the cases in theft entail specific intention to steal. Therefore, it is regarded as a result of reasonable choice made by individuals[5]. Therefore, theft is performed with a specific intention to steal that thieves made an active effort not to be caught or arrested[7]. In addition, thieves tend to have plans, selective action in advance, and intention for stealing, and many of them have a specialized criminal technique[7].

There are about 1,000 cases of theft of crops occurring in agricultural areas in Korea a year. There has been relatively modest increase in the frequency, but the damage amount has been increasing two times of them

<table>
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<th>Table 1, 2012~2016 Current status and damage amount of theft of agricultural and stockbreeding products</th>
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<tr>
<td>year</td>
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<tr>
<td>Number of cases</td>
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<tr>
<td>Damage amount in agricultural and forest products</td>
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<td>Damage amount of stockbreeding products</td>
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According to the current status of theft crime occurring in agricultural areas from 2012 to 2016, there were 1,043 cases in 2012 with the damage amount of agricultural and forest products worth 6.9 billion KRW and of the stockbreeding products worth 8 hundred million KRW. In 2014, there were 1,053 cases with the damage amount of agricultural and forest products worth 9.3 billion KRW and of stockbreeding products worth 1.3 billion that were higher than the ones in 2012. Therefore, all of them increased above the records in 2012.

The number of theft crime occurring in agricultural areas in 2016 was significantly higher than the ones in 2012 and 2014. To be specific, there were 1,092 cases with the damage amount of agricultural and forest products worth 12.4 billion KRW and of stockbreeding products worth 1.7 billion KRW. The number of cases increased only by 49 within 4 cases that there was not much difference. However, damage amount of agricultural, forest, and stockbreeding products increased almost two times of the ones before. Therefore, qualitative damage of theft in agricultural areas increased over quantitative development. Theft crime occurring in agricultural areas turned out to be evolved. Especially, issues of theft crime occurring in agricultural areas have been pointed out in various presses since 2012 reinforcing an effort to reinforce theft crime. In spite of such efforts, theft crime has been quantitatively developed.

Such results are proving that there have been an increasing number of thieves recognizing the value of theft of crops in agricultural areas and targeting vulnerable areas and those with special theft skills have been stealing crops. In addition, it also proves how necessary it is for the current system in protecting crops in agricultural areas to be evolved.

According to the characteristics of theft crops occurring in Korea based on real conditions, thieves represent a strong will to steal, and there are many of the appropriate targets. At the same time, there is a serious issue on the lack of supervisors to protect them in the areas.
2.3 Routine Activity Theory

Among many of the theories about the theft, this study is intended to explain a course of theft through the routine activity theory based on the contents of previous studies with results in rational choice of individuals. According to the Routine Activity Theory by Cohen and Felson, as shown in the Fig. 1, crime occurs when motivated offender, suitable target, and absence of capable guardianship are combined[1].

As explained in the Fig 1, quantitatively and qualitatively valuable crops are the suitable targets, and offenders with motivation on the theft in circumstances of agricultural areas in Korea with absence of capable guardianship without proper ability in coping with crime due to aging cause the theft of crops.

<table>
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<th>Routine Activity Theory</th>
<th>Discussion subject</th>
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<td>Suitable Target</td>
<td>▶ High level of production of crops in agricultural areas in Korea</td>
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<td></td>
<td>▶ Quantitatively and qualitatively high values of crops</td>
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<td>▶ Insufficient facilities for safely preserving of processing crops</td>
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<td></td>
<td>▶ Become an appropriate goal of thieves of crops</td>
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| Absence of Capable Guardianship         | ▶ Poor ability of coping with theft of crops with aging in agricultural areas in Korea |
|                                         | ▶ Insufficient police power compared to spacious areas where crops are produced     |
|                                         | ▶ Qualitative and quantitative shortage of surveillance devices                    |
|                                         | ▶ Lack of ability in coping with theft from an increase of foreign laborers         |

| Motivated Offender                      | ▶ Increase of intention of thieves on vulnerable areas of surveillance ▶ Difficulty in exposure against poor surveillance in case of theft of crops |
|                                         | ▶ Consider the criminal environment that is weak against theft by rational choice of thieves and steal products with specific intention |

Fig. 1. Theft of crops in the use of routine activity theory

2.4 Crime prevention Through Environment Design

In order to cope with theft crime, CPTED strategies can be considered as a way for suppressing the will of offenders against crime, protect suitable targets, and reinforce guardianship. CPTED strategies are to prevent crime by physically blocking out or removing the situations of crime unlike previous crime preventing strategies. Therefore, they seem to be effectively applied on agricultural areas with insufficient surveillance.

As for representative CPTED strategies, there are natural surveillance, access control, and
teritoriality. Natural surveillance is an activity for securing the visibility so that people are able to supervise the areas nearby. It is an activity to install surveillance light or CCTV in the areas with possibility of crime. Access control is the activity for installing intrusion preventing device with a key to control the access of potential offenders with the intention of crime to the targets. Territoriality is to prevent the intrusion of outsiders by having potential victims checking his/her area.

2.5 Data collection

In this study, 'Real conditions of welfare of farmers and fishermen in 2017' provided from Farm Service Agency and previous studies in regard of characteristics of agricultural areas were used to identify the real conditions of agricultural areas, while analyzing real conditions based on the 'Current status of crime in agricultural areas' investigated by Farm Service Agency as well as previous studies on the theft.

In addition, factual survey was conducted on the potential areas with crime in agricultural areas based on the previous studies and real conditions of application on the CPTED suggested as a way for coping with theft securing data needed for the study and implementing the research.

3. Results and Discussion

19.6% of respondents in the survey conducted by the Farmer Service Agency in 2009 on farmers with a question of agricultural areas were safe from the crime turned out to answer that they were not safe representing how agricultural areas were not recognized to be safe from crime[3].

Agricultural areas in Korea have already entered the aging society that farmers had no choice but working for primary occupation such as small sized agriculture of fishery due to the decrease in labor power. Those who could not adjust their lives in such a trend ended up moving to cities[3].

At last, senior citizens with poor self-defense ability ended up setting in agricultural areas and, hence, are exposed to opportunities of crime. Therefore, there has been an increasing crime such as theft by taking an advantage of their weak crime defending ability.

In fact, agricultural areas in Korea are providing a very favorable environment to crop thieves. Current environments in agricultural areas in Korea have changed to cultivate highly valuable crops. Therefore, there are many of the highly valuable crops and circumstances that are weak against theft of crops due to poor ability in coping with crime due to aging.

In order to cope with such issues, this study has suggested CPTED strategies. As suggested in the Fig. 2, this study has suggested a method to reinforce natural surveillance, access control, and territoriality suppressing the will of potential criminals to steal and protecting targets from crime.
In order to reinforce natural surveillance, this study has suggested to install surveillance light and active CCTV in the areas with possibility of theft of crops, establish the access control system in the area and space where offenders would intrude. Such a method cannot absolutely prevent theft of crops but is expected to significantly contribute to prevent theft of crops by suppressing the will of potential offenders to steal and protecting the targets.

In addition, farmers are required to raise the awareness of prevention of damage from theft of crops and obey safety rules. Crops shall not be saved on the road, and the saving place shall be installed with dual locking devices of alarm units. At the same time, reserved patrol system shall be used by notifying the police officers if leaving the area for a long time to make an effort in preventing the theft of crops.

4. Acknowledgement

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References


