

The Exploration of Challenges Concerning Combat against Illegal Transboundary Movement of Plastic Waste in Thailand

Phatsaporn Suwannakart ^{1*}, Rachtipan Pitiwararam ², and Nichabha Pumjit ³

¹ Faculty of Criminology and Justice Administration, Rangsit University, Thailand

² Forensic Serology and DNA, King Chulalongkorn Memorial Hospital and Thai Red Cross Society, Thailand, rachtipan.pit@chulahospital.org

³ Educational Evaluation Bureau, Office of The Education Council, Thailand, wpumjit@gmail.com

* Corresponding Author, phatsaporn.s@rsu.ac.th, © Authors

Abstract

Thailand is one of the developing countries facing a major concern on environmental crime regarding illegal transboundary movement of plastic waste. This study sheds light on the challenges that law enforcement organizations encounter in dealing with this sort of crime. The data were collected through a qualitative approach: in-depth interviews with key informants consisting of customs officers, police, officers of the Department of Special Investigation (DSI), the Department of Industrial Works, the Pollution Control Department, legal experts, and non-governmental organizations. The findings reveal that the challenges in detecting environmental crime are linked to limited intelligence and technology for identifying data in the customs' risk management system for product scanning as well as delayed coordination among agencies, an inactivity in monitoring factories' importation and manufacturing in both free zone and general areas trapped by bureaucratic government procedure, officials' insufficient knowledge in implementing the Anti-Participation in Transnational Organized Crime Act B.E. 2556 (A.D.2013) for investigation and prosecution, and an unsynchronized criminal justice agencies framework particularly in establishing the environmental crime division institution from pretrial to trial. Additionally, this study provides guidance for policymakers to address law enforcement challenges and offers recommendations for combating illegal transboundary movement of plastic waste.

Introduction

Environmental crimes may have been neglected in discussions on crime prevention, despite their significant impact on the environment and the economy. According to UN Environment Programme report (2018), less than 10% of 7 billion

tons of plastic waste is recycled. Millions of tons are either released into the environment or sent to be burnt or dumped in developing countries. An estimated annual loss of plastic packaging waste during sorting and processing is about US\$ 80-120 billion. (UNEP environment programme, 2024)

Plastic waste is a major threat to the environment, and it has also led to illegal transboundary movement linked to other forms of crime, such as organized crime for business purposes. In 2018, China and several other countries implemented measures to ban the importation of solid waste (Sasaki, 2021). This led to a notable change, as more waste began to be sent to Southeast Asian countries, as a result, Thailand has become a major destination for plastic scraps and plastic waste importation with a high inflow of such waste (Rujivanarom, 2021). This has also led to the illegal importation of plastic waste, involving smuggling, false declarations, industrial wrongdoing, and lack of transparency in law enforcement. (Chokcharatsakun, 2021)

Table 1
Import volume of plastic scrap HS-Code 3915.

Year	Tons
Jan - Dec 2015	56,212.66
Jan - Dec 2016	69,506.145
Jan - Dec 2017	152,737.452
Jan - Dec 2018	552,912.034
Jan - Dec 2019	323,167.065
Jan - Dec 2020	150,861,952
Jan - Dec 2021	159,622,972
Jan - Dec 2022	178,090,159
Jan - Dec 2023	201,714,762

Note: This includes scraps, cuttings, and unusable plastic items (in tons). (Thai Customs, 2024)

The largest exporters of plastic scraps which are sent to Thailand are Japan (58,785 tons), the United States (41,381 tons), China (14,650 tons), and others, amounting to more than 100,000 tons per year. Not only plastic scraps have been reported, but there also has been a significant increase in the amount of plastic waste, rising from 152,737 tons in 2017 to over 552,912 tons in 2018. (Ministry of Commerce's Public Data, 2023). Since 2018, the scenario has been continuously facing a severe impact on the environment, especially an aquatic ecosystem. Even if the plastic waste is

For over a decade, the Thai government has been working on policies to effectively manage plastic scraps since 1996. As part of its efforts, the Department of Industrial Works has established specific criteria for imported plastic scraps to ensure that they are not classified as plastic waste (Ministry of Industry, 2006). Thailand has ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal are not allowed to import such waste. However, we still face plastic waste management issues and environmental crimes, making it one of the top ASEAN countries affected by these issues (Interpol, 2020).

meant for recycling, it still poses a significant threat to the environment (Chaondee, 2023). Furthermore, the illegal transportation of waste across borders typically involves additional fraudulent activities, such as falsifying waste analysis reports or bills of lading (Sarkulworawit, 2021).

Additionally, there have been reports of the arrest of several cases. In Samut Prakan province, a factory that illegally imported 20,000 tons of plastic scraps was searched. It was discovered that waste had been falsely declared, and there

was suspicion of tax evasion. Also, it was found that officials may have been involved in illegal activities (Thai PBS, 2018) which is an offense under the Customs Act 2017, Section 202 (CUSTOMS ACT B.E. 2560, 2017)

As a result of increased public awareness, there is a social movement to ban the importation of plastic scraps in addition to previously banned plastic waste. The Thai government has decided to implement this ban starting from 2025 stating that the import of plastic plates with the indexed number HS3915 will also be prohibited and considered illegal (Ministry of Natural Resources and Environment, 2024). Although regulations exist, there is currently no clear in terms of the effectiveness of law enforcement. In criminology prospects, this environmental crime may rationally continue to persist due to its high economic returns and the low probability of being caught.

Despite the existence of laws, the public still has doubts about the effectiveness of crime prevention. Furthermore, the fact that this criminal problem endures indicates an inadequate regulatory system as well as multiple organizations with complex duties. Insufficient research in Thailand has brought to light issues of crime prevention on environmental crime in terms of why illegal transboundary movement of plastic waste still exists, and how the agencies deal with those crimes; thus, it is critical to honorably highlight the existing issues in crime control and identify the obstacles which will be useful as guidelines for developing policies to prevent illegal transboundary movement of plastic waste.

Literature Review

Environmental crime in transitional contexts

Larry J. Siegel (2015) explained that the environmental crime perspective can be classified into legal perspectives, which involve violations of legal provisions that protect both human beings and the environment. On the other hand,

it can also encompass a fairness perspective towards the environment. This means that any action that results in damage or loss to the environment, even if it is not defined as an action that violates the law, can be regarded as an environmental crime (Siegel, 2015). The study of environmental criminology involves examining behavior that is considered harmful to both humanity and the environment. This field emerged during the mid-1960s, around the time when the environmental movement gained momentum and discussions about animal rights began to take place in society. (Beirne & South, 2007).

UNICRI defined environmental crime as illegal acts that involve actions such as illegal trade that destroys the ozone layer and dumping of hazardous waste. These transnational threats of environmental crimes severely impact the quality of air, water, and soil, and they also affect the survival of living species (UNICRI, 2024). The "low risk, high profit" has been pointed out for this crime, and the motives of financial gain are confirmed by EU-level intelligence, revealing that key actors are perceived profits earned by the lack of traceability, and the lack of visibility of enforcement (Europol & EnviCrimeNet, 2015)

Considering on the impact, currently, the United Nations Environment Programme also describes transnational environmental crimes and specifies the meaning of "Transnational Environmental Crime" which refers to criminal activities carried out by groups of people. It is an action across international borders including illegal movement of controlled hazardous waste and hazardous chemicals (Nellemann, et al., 2016) Rob White (2018) has also suggested that transnational environmental crimes refer to illegal acts that harm humans, the environment, and animals. It involves the facilitation of the commission of wrongdoing by the state or wrongdoing by business organizations or influential actors who have the authority to direct government policy in ways

that cause harm to the environment (White, 2018). The high level of organizations of the transitional environmental crime group requires law enforcement agencies to dedicate their resources to combat it (UNEP, 2012).

Measures on illegal transboundary movements on Plastic Waste

Basel Convention

According to the Basel Convention, the main goals are (1) reducing the generation of hazardous waste and promoting environmentally friendly hazardous waste management, (2) restriction in cross-border movement of hazardous waste, except when the movement is by the principles of environmentally friendly hazardous waste management, and (3) the legal system applying to cases of cross-border movement when permission for cross-border movement is permitted (Secretariat of the Basel Convention, 1989).

One of the most important aspects that the Basel Convention has contributed to address is the provision of significant details to non-mandatory policy instruments within the framework of the Basel Convention's guidance. As a result, a group of experts from different governments has developed many technical guidelines on various types of waste management. The Convention also established regional or sub-regional centers for training and technology transfer in hazardous waste management, with the approval of the Conference of States Parties to the Basel Convention, to be used by the government at all levels as well as other relevant parties as a guideline and to

facilitate the management of various types of waste involved (Secretariat of the Basel Convention, UN environment programme, 2011).

Policy guidelines on stopping importing plastic waste by the end of 2024

On February 21, 2023, the Cabinet approved the policy "Ban all imports of plastic scraps in 2025" to prevent Thailand from being a receptacle for waste from other countries. There is also a push for the Department of Foreign Trade to improve "the Ministry of Commerce regulations regarding allowing the import of plastic scrap into the Kingdom....." (draft) to control the importation and promoting the recycling of plastic waste in the country to reduce environmental impacts and improve the health of Thai people. In addition, a sub-committee has been appointed to integrate the management of electronic waste and plastic scraps imported from abroad by reducing imports initially (Department of Industrial Works, 2024). Plastic scraps require permission to be imported. "Plastic scraps" are any pieces, cut pieces and non-usable pieces either used or unused plastics according to Law on Customs Tariff, with Harmonized Code of 39.15 as proposed by the Ministry of Natural Resources and Environment (Ministry of Natural Resources and Environment, 2023). To reduce the impact on the environment and the price of plastic scraps in the country, and to prevent Thailand from being a receptacle for waste from other countries, the important thing is that after December 31, 2024, the following actions in Table 2 must be taken:

Table 2

Table summarizes the policy prohibiting the import of plastic scraps.

Years	Free zone area	General area
2023	Imported at 100% of actual production capacity, totaling no more than 372,994 tons per year	prohibited with exceptions
2024	Imported not exceeding 50% of actual production capacity, totaling no more than 186,497 tons per year	prohibited with exceptions
2025	prohibited	prohibited

(Greennews, 2023)

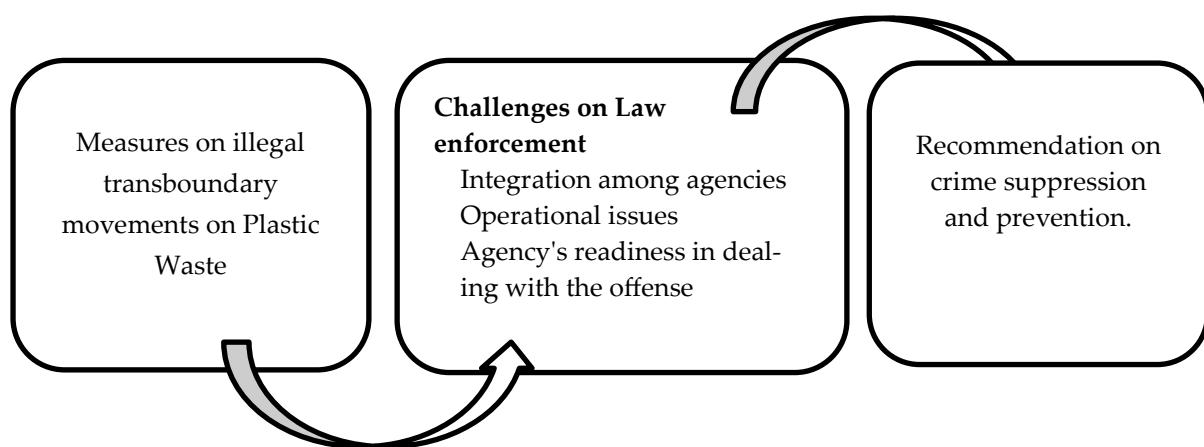
Importing plastic scraps will shortly be prohibited and declared illegal. However, there are currently no clear studies identifying the problem of crime combating and providing prevention and suppression. The subject of falsifying declarations for customs and law enforcement remains unclear due to the involvement of multiple government organizations in this matter.

Research Methods

Through a qualitative research design, this study aims to address problems of law enforcement in combating the illegal transboundary movement of plastic waste and to provide suggestions for effective enforcement. This research

utilizes data from documentary sources including laws, regulations, academic documents, and media related to environmental crimes to identifies Thai background on the illegal transboundary movements of plastic waste, and basic issues on law enforcement. The researcher then analyzes the sources in order to design a semi-structured in-depth interview with open-ended questions for the interviewees. The question consists of the impact of smuggling plastic waste, the limits of legal measures, integration among agencies and enforcement concerns such as operational issues, patterns of offense, other information that participants are willing to provide and suggestions for combating plastic waste smuggling.

Figure 1
Research Conceptual framework



Key Informants

The stakeholders in law enforcement agencies gathered to collect data comprise customs officers, police, environmental agencies (Department of Industrial Works and Pollution Control Department), legal experts, and non-governmental organizations. An in-depth interview is ongoing with at least 10 years of experience experts involved in preventing and combating the smuggling of plastic waste in Thailand. These experts consist of government officials in positions

of leadership, inquiry officials, and members of non-governmental organizations participating in environmental rights campaigns. According to the criteria, the data providers are 18 experts consisting of 3 police, 3 customs officers, 3 officers of the Department of Special Investigation (DSI), 3 officers of the Department of Industrial Works, 2 officers of the Pollution Control Department, 2 legal experts with doctorate diploma, and 2 representatives from non-governmental organizations.

Data Analysis

To achieve trustworthiness in qualitative research, the content analysis comes from a wide variety of sources (Virginia Wilson, 2011): research, academic articles, regulations, and laws. The information is accurate and reliable and has strong supporting evidence. In field research, data collection is carried out by at least 2 researchers as well as multiple analysts to interpret data meaning following the research question (Elo & Kyngäs, 2008; Schreier, 2012). The results will follow the research topic focusing on addressing the problems of law enforcement on the illegal transboundary movement of plastic waste and there are also recommendations for the development of crime prevention.

Results

1. Challenges of detecting illegal transboundary movements of plastic waste

Customs fraud involving false declaration procedures.

In general, the importation of products must pass customs clearance or must be declared to customs authorities. According to the information gathered from participants, illegal transboundary movement of plastic waste or the contaminated plastic scraps were mostly transportation by sea packed in containers. The pattern of misconduct detected involves falsifying customs declarations such as misrepresenting information on Bill of Lading, non-existing import companies and addresses, or declaring other indexes that are not the tariff index of 39.15. Even if they are plastic scraps, they may not comply with the license requirements according to the criteria of the Ministry of Industry in 2008. Plastic scraps that are crushed. Also, causes of pollution measuring greater than 2 cm that do not match the criterion. Since the Thai government plans to ban plastic scraps shortly in 2025, during the year of 2024, the participants pointed out there are offensive

techniques that the plastic waste is hidden inside the container and covered by plastic scraps to avoid arrest. Furthermore, there is a gap in crime prevention at the beginning stage of customs control which is an opportunity that could avoid arrest due to the limitations of time in screening with X-ray equipment. It might not be possible to strictly screen and open containers that need to be continuously transferred to the industries either in free zone areas or outside the free zone.

Limitations in inspection technology and product examination

Indeed, Thailand is engaging in the Trade Facilitation Agreement and the ASEAN Economic Community bringing huge numbers of inbound and outbound to support international economic growth. Therefore, it is a time-consuming strategy to set up fast scan systems and reduce the rate of opening containers. However, this current situation on environmental crime shows that there is a limitation of inspection technology for customs to control suspicious containers. Some of the X-ray equipment has been overused and may have broken. Also, this point of border control cannot identify and check for every container.

Moreover, proving that the importation of suspicious cargo is illegal is also a big challenge. When customs officers detect that the commodity which might be categorized as hazardous waste under the Basel Convention against law enters the country, for product verification, there is a delayed bureaucratic procedure that the customs officers need to coordinate by sending an official letter to the Department of Industrial Works which authorizes the administrate of the industrial business regulation and hazardous substances. Then the scientific experts proceed with the scientific method to ensure and define suspect products as "plastic waste" or classified as hazardous waste residue from manufacturing industries.

If it is found that the goods are likely to break the law, we (customs) must follow the procedures in sending the letter to the Department of Industrial Works for proceeding with a physical examination by scientists. This process may take time. If it is plastic waste, it must be destroyed or sent back to its country of origin. This may cause the problem that waste must remain in containers which has a high destruction cost. Sometimes, it cannot be returned and containers are no longer used for further work. (Participant 2, custom)

If products are found as hazardous waste, the Customs Department will require the company to take responsibility for the expense of returning them to their country of origin and take legal action against all those involved. Unfortunately, some cargo containers remain at the port without showing the actors involved or non-existent importers. This may be examined for possible arrest, but more importantly, there are huge costs and harmful effects on the environment during the destruction process.

2. The monitoring of factories' importation and their manufacturing process

Monitoring industrial activity in the Free Zone area

Currently, several criminal cases have been publicized in the news where factory-operated businesses violated licensing requirements, and industrial waste was thrown into the environment. Although there are laws and regulations on factory licenses for factory establishment and operation, as well as controls on industrial pollution, managed by the Department of Industrial Works of the Ministry of Industry in Thailand, their manufacturing process poses a risk to public health, safety, and the environment. When transboundary movement of plastic waste can pass through customs clearance, it will be delivered to a factory both within and outside of the free zone. Therefore, to clarify the subject matter of factory monitoring. The subject might be split into free zone

areas and general areas since different government actors are involved in the criminal control approach.

To begin with, industrial factories are located in free zones designated by the Director-General of Customs, and their economic activity must meet customs criteria and be subject to customs control. In reality, plenty of criminal cases have been under investigation in these free zone areas. Police officers pointed out that there are cases where factories break the rules in manufacturing remaining waste. There is also concern from non-organization surveillance that plastic scraps and plastic waste may flow outside the free zone area, leaving residue in the country. It has been mentioned that inspections in the free zone area are a reflection of customs law enforcement's efforts to verify whether the factory has followed the licensing or report procedures. Although the local police or the Central Investigation Bureau are now granted the jurisdiction to arrest, it came to light that this method always requires initial contact from customs so that the police can engage in action.

When customs officials have submitted notifications to the police. In practice, if customs issue an official letter, the police will investigate and take legal action. The main responsibility for control strategies in free zone areas relies on the customs authority. Police will be in charge once the custom discovers that it is the factory that violates any laws or conditions. (Participant 1, Police officer)

Surveillance public by non-organizations also concerns that there is still laxity in controlling business in the free zone area. It is not clear in tracking imports. The public may not know the real-time data on cargo transferred to the factory such as information on what is being imported, how much companies import, and where the products are processed. As a result, it is not surprising that citizens continue to question the competence of government agencies in enforcing the law and monitoring industrial factories. This could illustrate that industrial control

within the free zone area is still carried out by a single customs agency, creating doubts about transparency.

Monitoring industrial activity in the general area

Aside from that, in the general area, most industrial factories outside free zones are regulated under the Department of Industrial Works. When there is a suspicion of wrongdoing, the inquiry might be carried out in collaboration with local police or police of the central investigation bureau for an arrest and investigation. Nowadays, most cases are related to organizational crime. Similar to the free zone area, the real owner of the business is a Chinese investor using Thai nominees as one of the shareholders to meet the license application requirements. As a result, while preparing an investigation file for prosecution, significant evidence is required. The cooperation from the Department of Industrial Work is needed to identify hazardous waste and ensure that the business is illegal and harmful to society.

With regard to illegal transboundary movement of plastic waste to a factory, police usually have been informed of the sources so that they will always monitor and investigate the suspicious factory by gathering evidence such as photographs, information on suspect cargo containers arriving and exiting the factory, and citizen complaints. The inquiry officials will contact the Department of Industrial Work to search for illegal evidence together. However, the issue with this process is a time delay in coordination with the Department of Industrial Work. The police pointed out that sometimes it takes months before they can enter the factory together. News may have released the information and the subsector may know that they would be searched and thus destroyed evidence before the police arrive.

3. Inactive law enforcement in combatting illegal transboundary movements of plastic waste

The challenge of integrating multiple agencies

Various government agencies are involved in combating illegal plastic waste trafficking, customs as border control, police in charge of investigating, the Department of Special Investigation (DSI) in inquiry of special complex cases causing immense economic damage and public impact, the Department of Industrial Works as factory control, the Pollution Control Department in environmental policy development, the prosecutor and judge in bringing fair trials, and non-governmental organizations as public surveillance. Without a doubt, each agency reveals that they must be integrated and coordinated to function successfully.

According to the study's findings, there is one remaining concern: coordination between agencies. It is still being discussed whether customs failed to regulate the border or whether there was an error in the Department of Industrial Works' permission for setting up a factory and a failure to inspect industrial manufacturing procedures. While agencies often tackle problems based on their written description, this may not be the primary goal of crime prevention which requires a network. The network helps reduce the complicated bureaucratic procedures between agencies, sharing information, and establishing an integrated framework for transitional environmental crime combating and training. Additionally, there is no government's attempt to encourage public participation in crime prevention through facilitating public surveillance of illicit factories in the surrounding area.

An inconsistency in agency statutory during the inquiry

In regard to litigation in Thailand, when it comes to offenses related to illegal transboundary movement, the majority could be prosecuted regarding false declarations and related offenses

mainly under Customs Act B.E. 2560 (2017), Hazardous Substance Act, B.E. 2535 (A.D. 1992), Export and Import of Goods Act, BE 2522 (1979), Factory Act B.E. 2535 (A.D. 1992) and Anti-Participation in Transnational Organized Crime Act B.E. 2556 (A.D.2013). However, it appears that the implementation of the designation of police agencies to deal with the situation remains inconsistent. When the matter comes to the police, whether it was discovered during customs clearance, inside the free zone, or outside the free zone, besides the local police, cases could be referred to the central investigation bureau.

Presently, cases that fall under tax offenses are investigated by the Economic Crime Suppression Division once they reach the central investigative bureau. The police plan to restructure the agency by placing environmental offense cases under the supervision of the Suppression Division, as the damage caused to the environment is considered significant. (Participant 3, Police)

However, for the past decade, almost all of the significant cases have been handled by the Economic Crime Suppression Division instead of the Suppression Division Environmental Offenses, which typically deal with illegal wildlife hunting and forestry; thus, illicit transboundary movements of waste are currently not involved. This brings to the confusion that the cases were mainly considered as only on the perspective of economic loss. The damaging environmental effects of this type of offense are possibly overlooked. However, the police participants stated that their organization intends to broaden its scope of activity soon because, in simple terms, it ought to fall under the Division of Environmental Offenses to acquire physical evidence, identify environmental harm in the inquiry file, and coordinate with experts in confirming the substance of waste for the fair trial.

Implementation of the Transnational Organized Crime Act (B.E. 2556, A.D. 2013)

Additionally, legal experts pinpointed that to deal with cases, inquiry officers need to be knowledgeable about which the crime pattern could be identified as Transnational Organized Crime under the Anti-Participation in Transnational Organized Crime. Act B.E. 2556 (A.D.2013). As a concept of the crime control model, an organized criminal group means a structured group of three or more persons, this law imposes the legal basis for using special investigative techniques following the United Nations Convention against Transnational Organized Crime (UNTOC), which attempts to set up a legal framework to combat criminal activity among State Parties.

It appears that the main challenge lies in the lack of understanding and integration between different agencies, as well as a lack of knowledge regarding the Anti-Participation in Transnational Organized Crime Act B.E. 2013 (A.D.2013). Officials must recognize whether the crime is related to a criminal organization or not. With legitimate authority to investigate crimes that happen rapidly, officials can take swift action against those who engage in such criminal activities. (Participant 1, Legal Expert)

Therefore, the act allows the responsible investigator or inquiry officer to investigate for the benefit of an investigation such as entering into any dwelling or place to search where the property may be hidden, searching a person or a conveyance who may be suspects, and seizure of the property. Despite existing law, an important concern on law enforcement issues is that all related government agents should be sufficiently educated and trained to understand the goals and content of this law in order to effectively carry out the investigation under the act and cooperate for the benefit of the investigation.

The trail of an illegal transboundary movement of plastic waste

Considering the next step of prosecution, it appears that the majority of trial cases are related to forestry rather than the illicit transboundary movement of waste. It is partly because before the rise of plastic waste until the year 2019 according to CUSTOMS ACT B.E. 2560 (2017) Section 256 underlines that if the offender agrees to pay the fines, the Director-General may waive prosecutions, and the cases shall be deemed terminated. In the case where the Director-General deems fit to prosecute, he shall record a reason wherefore such person should be prosecuted. This term dealing with illegal transboundary movement of plastic waste was used until there is spreading news came to public that Thailand has become the world's trash, so punishment of fines to waive prosecutions has been discontinued (CUSTOMS ACT B.E. 2560 (2017)).

Legal proceedings of the transboundary transportation of plastic waste are infrequently pursued in court. This is due, in part, to the Director-General's power to waive charges as outlined in the CUSTOMS ACT B.E. 2017. Despite customs having revised their policy to prosecute, cases involving such matters are still not commonly brought to trial. (Participant 2, Legal Expert)

Although few cases go to trial due to either limitation of arrest, investigation, or corruption in the pre-trial stage, there should be criminal justice institutions that have been designed to handle such matters. However, as shown in the Office of the Attorney General's organizational chart, a state attorney has not yet established an environmental litigation division. Subsequently, at the stage of a criminal trial, besides the Court of First Instance, there are only environmental divisions in the Court of Appeals and Supreme Court set up specifically to deal with this particular sort of environmental matter. Notably, the agency's readiness to deal with environmental offenses is not synchronized from pre-trial to trial. Likewise,

the emphasis on crime prevention planning remains less solid than it should be.

4. Transparent among law enforcement actors

Thaweesin, Prime Minister and Minister of Finance, visited the Customs Department on March 28, 2024, emphasizing the concern about the problem of corruption among government agents. He also mentioned the development of a database for importing and exporting that could monitor any importers' suspicious behavior and shall require cases that occurred in the past to be investigated.

What is important is the transparency in requesting permission for the factory, especially in the free zone. At this point, subject imports into free zone areas remain untraceable and unpublished in real-time. There is no database indicating which cargo is imported for what activities. How much should companies import? Where did the products depart? This is an issue of information transparency. (Participant 1, non-governmental organizations)

Pushing the 100% X-ray policy to increase efficiency in product release reduces the use of discretion by officials in claiming benefits. It cannot be argued that one of the significant challenges to effective crime prevention is environmental corruption among law enforcement agents. Nowadays, there are many illegal products smuggled into the country, undermining people's trust in government officials in terms of crime prevention.

With regard to combating illegal transboundary movement of plastic waste it is pointed out that when the officers access the site, it turns out that the suspects have destroyed or hidden evidence or cleaned the factory so that no illegal products will be detected. This raises the question that perhaps the officials involved were corrupt in notifying the offending factory to delete evidence before entering the site to search for evidence.

This form of transitional environmental crime surely results in significant benefits for the offenders. If officials are involved and share

interests, the chances of being detected would be reduced. Thus, they may continue their wrongdoing and pose a threat to our society. Since environmental crimes appear to create irreparable harm to our Earth and healthy environmental rights, law enforcement agents should work together to combat this type of crime through investigations, seizures, and other operations, as well as increased public observation to ensure that officials follow the law.

Discussion

Environmental crime refers to a wide range of actions that violate environmental laws and cause significant harm or risk to the environment, human health, or both (Europol, Environmental Crime, 2022). Garbage and hazardous waste trafficking are currently a major global problem involving a wide range of actors, including private enterprises, corrupt public officials, and organized crime groups (Liddick, 2010). Lieselot Bisschop also illustrates the complexity and global nature of the illegal transport of e-waste as a transnational environmental crime in which diverse actors can play a role (Lieselot, 2012). Consistent with what happened in Thailand, plenty of plastic waste overflowed from many countries. News was reported in June 2023 that 35 countries sent plastic waste to Thailand (Matichon Online, 2018). This demonstrates a wide range of actors; additionally, the waste that remains in the country is not only significant harm to the environment and human health but also an enormous loss in waste disposal.

From the view of the rational choice theory of crime, this sort of offense refers to greed that people rationally choose to take shortcuts to acquire wealth, believing that the potential profits far outweigh future punishment; not only greed but also the need that perform important roles (Siegel, 2015), as the blue-collar Thai nominees and migrant workers implicated in this offense

needed money for living. Some of them have no idea who the real owner of the factory is. They are just employed to complete the work or hire as one of the Thai nominee's shareholders to meet the license application requirements.

Dealing with the illegal transboundary movement of plastic waste is consequently tough because it is a transitional environmental crime. The key actors are mostly organized crime living outside the country, specifically the Chinese capitalist group. Therefore, Tonry and Farrington (1995) suggest reducing the opportunities for crime is an efficient method to prevent it, thus, in the long run, strengthening crime prevention for this kind of offense should be emphasized (Tonry & Farrington, 1995).

Detecting border control is a critical step for crime prevention. Risk management on the scanning system on the fast scan of customs remains a gap in sending illegal cargo into the country. This is aligned with Chaowat Sarkulworawit (2021) who suggested that there are issues in gathering information to use in establishing screening conditions for the custom's scan system, as well as a low rate of investigating imports (Sarkulworawit, 2021). Participants agreed that Thai law enforcement officers' performance in monitoring companies is critical to implementing the Basel Convention, which aims to limit hazardous waste and prevent transboundary waste movement. Networking operations with experienced and skilled officers dealing with this offense, developing technologies, training, as well as linking information, are critical to speeding up the arrest process, as Napassorn Piachan (2021) demonstrated that a lack of integration between agencies results in delayed criminal processes, including the problem of corruption, which causes crimes to be committed continuously (Piachan, 2023). Besides that, in crime prevention, public monitoring can play an important function in surveillance by enhancing awareness and protecting the well-being of the community.

Moreover, the knowledge of Transnational Organized Crime Act B.E. 2556 (A.D.2013) is very important since it grants numerous authorities to counteract such crimes. It is not appropriate that law enforcement agents are unaware of this regulation, in accordance with Sumonthip Chitsawang and et.al. They demonstrate that there is a lack of knowledge to implement the law in crime control and suggest that a guidebook should be created to instruct practitioners participating in enforcement (Chitsawang, Chitsawang, & Kor-Udom, 2022). Furthermore, because Thailand is a signatory to the United Nations Convention against Transnational Organized Crime (UNTOC) and has enacted the Anti-Transnational Organized Crime Act of 2013 as implementing legislation under the Convention and its Protocol. This law provides law enforcement agencies with additional tools to assist in their investigation and prosecution of offenders (Ministry of Foreign Affairs, 2013). It is also consistent with the goal of fostering cooperation and information exchange. Therefore, it is essential for law enforcement officers to have an understanding and expertise when collaborating with Interpol on an international scale to combat this sort of crime.

Conclusion

This study demonstrates the main issue of law enforcement on combating the illegal transboundary movement of plastic waste in four aspects consisting of the challenges of detecting products, issues on the monitoring of factories' importation and manufacturing, inactive law enforcement, and transparency among law enforcement actors. When products enter the country, the first step of crime prevention is to detect plastic waste. In this stage, the study found that there are limitations on the technology of customs to scan all cargo as well as risk management in gathering information from various intelligence sources for establishing a

screening system. The most important problem is time-delayed when it needs scientific proof to be defined as waste. Non-existent importers' problems remain with the high cost of the destruction process. In some case, cargo can pass customs clearance and be transferred to the factory in both the free zone and general area. There is still a lack of integration between agencies in monitoring their manufacturing. Moreover, there is the problem of inactive law enforcement with a lack of national professional networking forces and an unsynchronized institutional framework from pre-trial to trial in terms of prosecution. Finally, the most important thing is transparency among law enforcement actors which possibly be reduced in case of establishing a networking team to check and balance and to deal professionally with the illegal transboundary movement of waste.

Recommendations

Without enforcement efforts to investigate and prosecute illegal transboundary movement of plastic waste, illegal dumping is expected to become a growing hazard to health and environmental security. The study includes guidelines for combating this sort of offense, which can be used as guidance for policymakers in the following recommendations.

1. Strengthen national law enforcement by setting up professional teams of national task forces involving police, customs officers, scientists, environmental agencies, prosecutors, and non-governmental groups to eliminate bureaucratic red tape and focus on crime prevention.
2. From pretrial to trial, establish an environmental litigation division in the attorney general's office and every level of the courts, and empower the Division of Environmental Offenses of the Central Investigation Bureau to investigate the significant matter.

3. Develop the intelligence and technology for data identification in the customs' risk management system for product scanning, as well as setting up the criminal record on the route, crime pattern, suspicious cargo, and possible involvement of organized crime.

4. Establish a real-time data and tracking system for cargo and plastic scraps entering the country and free zone area, as well as public monitoring systems such as CCTV, access control, and route control, to prevent corruption and enhance crime prevention activities.

5. Strengthen awareness and encourage non-governmental organizations, volunteers, and other stakeholders especially locals to monitor the factory industries, and to surveillance on transparency of governmental agents.

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