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Issues Concerning the Improving Organizational and Legal Support of Victimological Prevention for Environmental Crimes

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Abstract: Environmental crimes have become a pressing issue in today’s world, with the degradation of ecosystems, pollution, and climate change threatening the very foundation of our planet. These crimes not only harm the environment but also have adverse effects on individuals and communities. Recognizing the need for effective prevention strategies, victimological approaches have gained prominence. Victimology focuses on understanding and addressing the needs of the victims, aiming to prevent victimization and promote justice. This essay explores the importance of legal support in victimological prevention of environmental crimes and highlights the key measures required to achieve this goal.

Keywords: environmental crimes; victim; prevention; offender identity; environment; sustainability.

JEL Classification: K32; K39; R11.

Introduction

One of the key aspects of victimological prevention for environmental crimes is the implementation of proactive measures to identify and mitigate potential harm. By establishing robust environmental regulations, governments can set clear guidelines to prevent harmful activities, such as illegal logging, poaching, or toxic waste dumping.
Strict enforcement of these regulations is crucial to ensuring compliance and holding offenders accountable for their actions. Additionally, the development and implementation of comprehensive monitoring systems, including satellite technology, can help detect environmental crimes early on and provide valuable evidence for legal proceedings.

The study of victimological prevention is of constant interest to criminologists. When discussing this issue, special attention is paid to the characteristics of the victim, certain social conditions in which the victim-personality grew, grows and becomes an accomplished person, a person with his achievements in society, with a social circle, and, possibly, vice versa, an anti-social person (Andresen et al. 2021). In this case, it will be necessary to establish the reasons why the fate and the current state of the person-victim developed in such a way, which exposed him to such a state.

Particular attention is paid to age categories, moral development and financial situation. An analysis of the victimological characteristics of crime, combining the study of statistical data, the results of research by criminologists and sociologists, will make it possible to describe the object under study - criminal victimization - not only on the part of the victims of crimes, but also to determine the impact of their behavior on the mechanism of criminalization of criminals. Additionally, this analysis allows for an examination of the impact of victim behavior on the criminalization process. The integration of victimological characteristics, statistical data, and research findings enables a more nuanced understanding of criminal victimization. This knowledge can inform policy development, crime prevention strategies, and victim support services to effectively address the needs of victims and contribute to the overall criminal justice system.

1. Literature Review

Environmental criminology and spatio-temporal criminology can broaden our understanding of victimization. Some researchers emphasize the theoretical aspects of environmental criminology and its contribution to the study of victimization. However, we note that environmental criminology has the potential to study victimization, where not enough research has been done in this area so far.

Some studies also discuss how certain crime prevention strategies can have unintended consequences, including further victimization of vulnerable and marginalized groups. However, most research in environmental criminology, based on everyday activities, indirectly operationalizes goals. Claiming that places with more attractive targets or people engaged in certain everyday activities are at higher risk of victimization can be seen as blaming the victim, even if there is no such intention. This is important to consider to avoid negative consequences and misperceptions (Armitage 2018).

Crime Prevention Techniques through Environmental Design (CPTED) aims to reduce opportunities for crime by designing and managing the built or natural environment based on principles that guide the design of buildings and the organization of space around them. CPTED provides guidance, and compliance with design principles is often assessed through award systems such as Secured by Design (SBD) in the UK and Police Label Secured Housing in the Netherlands. By incorporating these principles into the design and management of the built environment, these programs aim to create more secure spaces that deter crime and enhance community well-being. It’s important to note that CPTED principles can vary slightly across different regions and programs, but the overall goal remains the same: to reduce opportunities for crime through thoughtful design and management of the environment.

Research has consistently supported the effectiveness of CPTED. The study by Chopin, Caneppele, and Beauregard (2019) further supports the effectiveness of CPTED in reducing crime, fear of crime, and enhancing safety. It is worth noting that the success of CPTED implementation relies on careful planning, collaboration between architects, urban planners, law enforcement agencies, and community members, and ongoing evaluation to ensure the sustainability and effectiveness of CPTED strategies.

Corcoran, Zahnow, Kimpton, Wickes, and Brunsdon (2019) explore the role of criminologists, including victimologists, in expanding understanding of the effects of climate change and other forms of environmental degradation. The authors discuss how climate change and environmental degradation can contribute to the emergence of new forms of crime and victimization. They may examine the linkages between environmental factors, such as extreme weather events, resource scarcity, and shifts in land use, and their influence on crime patterns.

Gibbs and Boratto (2019) examine the causes of environmental crime, finding that it is a complex and multifaceted concept used to refer to crimes related to biodiversity, wildlife, animals, natural resources, hazardous wastes, prohibited substances, and environmental quality.
For example, White and Heckenberg (2020) discuss the following environmental issues: “brown” - related to urban life and pollution (e.g., air quality), “green” - related to wildlife and conservation issues (e.g., logging), and “white” - related to scientific laboratories and the impact of new technologies (e.g., genetically modified organisms).

According to the Interpol Environmental Crime Program, there are three main areas: biodiversity, natural resources, and environmental quality (White 2020). Biodiversity crimes include illegal removal of flora and fauna from the natural environment, animal cruelty, illegal possession, trade, and exploitation of wildlife (Wellsmith 2018). Cosaro, Pizarro, and Shafer (2020) also address crimes against natural resources in their research.

Criminological research has consistently confirmed the tendency of crimes to cluster in both space and time. For example, a study of Melo, Andresen and Mathias (2018) investigated the phenomenon of repeat victimization (where the same victim is exposed to crime again within a short period of time) and near-victimization (where locations close to the original victimization are exposed to crime within a short period of time). This study found considerable support for the phenomenon of repeat and near victimization, although the extent of this phenomenon varied by crime type.

Mihinjac and Saville's (2019) analysis highlights early research by Jeffrey, who first introduced the term “crime prevention through environmental design” and called for an interdisciplinary science examining criminal behavior and its prevention and suggested that the physical environment influences the ability to commit crime and therefore crime can be prevented through urban environmental design. Jeffrey's work laid the foundation for the concept of CPTED, which suggests that the design and arrangement of physical spaces can influence criminal behavior. This approach seeks to create environments that deter crime by incorporating elements such as natural surveillance, territorial reinforcement, access control, and maintenance.

However, unlike proponents of Newman's “protective space” theory, Jeffrey did not believe that crime and its prevention were entirely determined by the physical environment, as his approach was to define “environment” using broad perspectives, and his proposals included integrating several previously unrelated theoretical approaches into the science of criminal behavior and prevention. His approach was a broader definition of “environment” that included the organic sciences as well as the physical sciences to help explain the physical possibilities of crime.

2. Understanding Environmental Crimes. The Role of Victimology in Environmental Crimes

Environmental crimes encompass a range of offenses, including illegal dumping, wildlife trafficking, illegal logging, hazardous waste disposal, and pollution. These acts cause severe harm to ecosystems, endanger wildlife, jeopardize public health, and impact communities dependent on natural resources. By adopting a victimological perspective, it becomes evident that environmental crimes have significant consequences for individuals directly affected by the harm caused to the environment.

The Role of Victimology in Environmental Crimes: Victimology plays a crucial role in addressing environmental crimes from a human-centric perspective. It acknowledges that individuals and communities suffer harm due to environmental degradation, making them victims of these crimes. By recognizing victims' rights, needs, and experiences, victimological approaches aim to prevent further victimization and ensure justice.

To provide effective victimological prevention for environmental crimes, legal frameworks must be continually strengthened and adapted. Governments should enact legislation that specifically addresses environmental offenses, ensuring appropriate penalties and deterrents. These laws should prioritize victim protection, including provisions for witness protection programs, confidential reporting mechanisms, and the right to legal representation. Furthermore, fostering public-private partnerships can enhance the effectiveness of prevention efforts, encouraging businesses and industries to adopt sustainable practices and environmental responsibility.

An analysis of various conceptual views on victimological prevention as social management in the context of society transformation shows that in the countries of Western Europe and the United States, the emphasis is on the soft regulatory impact. The most important function of victimological prevention is to maintain in society the necessary balance between the inevitable, which are the result of objective reasons, the processes of criminalization and the processes of decriminalization of society (Pease and Ignatans 2018, Kyle and Vogel 2019).

It's important to note that the presence or absence of a victimological protection system and policy can depend on various factors, including the legal and institutional frameworks in place, cultural and societal norms, and the stage of development of the criminal justice system in a particular country. In countries where victimological protection systems are still evolving, there may be ongoing efforts to enhance victim support.
services, promote victim rights, and improve the overall response to victimization. These efforts often involve collaboration between governmental and non-governmental organizations, legal reforms, training programs for criminal justice professionals, and raising public awareness about victim issues.

In Kazakhstan, and in the CIS countries, unlike the countries of Western Europe and the United States, there is no complete system of victimological protection of the population and a targeted victimological policy of the state, which would be comparable to Western counterparts. Given the weak development of the institutions and intentions of civil society, we can assume that it is unlikely to be as effective in our country as in the West. It is necessary to structure (and stimulate) the victimological movement, which is carried out from a single center. Therefore, it seems expedient to form a single coordinating and directly acting victimological association according to the English model, with the active role of the state.

In order to strengthen the victimological prevention of crime, it is necessary to strengthen its legal and organizational order. Consider all possible ways and means of its strengthening and effective strengthening. Thus, we can offer the following ways to improve the organizational, managerial and legal support of victimological prevention:

▪ systematization of normative material concerning the implementation of victimological prevention;
▪ use and development of useful ideas, principles and provisions, \( i.e. \), everything useful that forms the basis of the current system of administrative and legal support for victimological prevention;
▪ maximum reflection and consideration of the essence and characteristics of victimological and preventive activities, its goals, content, main directions and conditions of existence;
▪ strengthening not only responsibility, but also legal guarantees for participants in public relations in the field of victimological and preventive activities, giving the most important of them the force of law;
▪ comprehensive consolidation of the provisions, which have traditionally been used in practice and have positively justified themselves;
▪ achieving higher efficiency and effectiveness of victimization and prevention activities, it is proposed to apply available management forms, methods and techniques, as well as structures and schedules, taking into account their integrated use;
▪ improving the legal provision of victimization prevention, it is possible to use the existing experience of administrative and legal regulation of victimization measures in other countries.

To achieve a high level of effectiveness and unity of victimization prevention, it is recommended to formalize these activities within a unified legal system, ensuring consistency, coherence and continuity of functions of all subjects of this activity. A unified legal system should be a legal tool for implementing measures to influence victimization.

Figure 1. The relationship between the environment and victimological crime prevention

The relationship between the environment and the prevention of crime involving victims, victimization studies

Source: compiled by authors

The relationship between the environment and victimological crime prevention is important. The environment, including the physical, social and economic environment, influences the likelihood of crime and becomes a factor influencing human victimhood and vulnerability. Figure 1 shows some key points highlighting the relationship between the environment and victimological crime prevention:
Physical environment including urban design, infrastructure, and geographical characteristics, can affect crime rates and victimization. Factors such as building layouts, street lighting, presence of security measures, and the accessibility of public spaces can contribute to creating a safe or crime-prone environment.

Social environment comprising community dynamics, social norms, and collective efficacy, influences crime rates and victimization. Strong social cohesion, positive community relationships, and active community involvement can act as protective factors against crime and victimization by fostering informal social control and reducing opportunities for criminal behavior.

Economic environment including income disparities, poverty levels, and employment opportunities, plays a role in crime and victimization. Communities with high poverty rates and limited economic opportunities may experience higher crime rates and a greater vulnerability to victimization. Addressing socioeconomic inequalities and promoting economic stability can contribute to reducing crime and victimization.

Ecological environment including natural and ecological features, can have an impact on crime and victimization. Factors such as the presence of green spaces, access to recreational areas, and the maintenance of natural environments can contribute to community well-being, social interaction, and a reduced likelihood of criminal activities.

The environment can shape individuals’ risk perception and fear of crime. Perceived insecurity and fear can impact individuals’ behaviors, limiting their mobility, reducing community engagement, and affecting their overall well-being. Creating environments that promote feelings of safety and security can help alleviate fear of crime and enhance the quality of life for residents. Perceptions of risk and fear can be subjective and influenced by a range of factors beyond the objective crime situation. Understanding the relationship between the environment and individuals’ risk perception and fear of crime is crucial for developing strategies to address and alleviate fear, enhance feelings of safety, and promote community well-being.

Environmental crimes happen wherever you can make money on illegal transactions that harm the environment. According to a UN report, environmental crime is larger than the illegal trade in small arms, which is estimated at about $3 billion. The financial losses caused by environmental crime are more than 10,000 times greater than the amount spent by international agencies to stop it (the total budget is only $20-30 million). From the beginning of 2017 to September 2022, about 1.1 thousand criminal environmental offenses were committed annually in Kazakhstan. Despite the fact that their number is decreasing every year, the financial damage they bring to the country is growing. Last year, environmental violations cost Kazakhstan 5.3 billion tenge, a record amount since 2017.

The two most common types of crimes are:

- the crime of unlawful handling of rare and endangered plant or animal species, as well as prohibited species, their parts or derivatives (under Article 339);
- unlawful harvesting of fish resources, other aquatic organisms, or plants (Article 335).

They accounted for 62.8% of all criminal environmental offenses in 2021, and 56.1% in the first nine months of this year (Figure 2).

Starting from 2017, offenders cause damage to Kazakhstan on average in the amount of 3.5 billion tenge annually - both to the state itself and to legal entities and individuals. However, the perpetrators are in no hurry to replenish the treasury, compensating for the damage. So, on average, over the past five years, violators have compensated only 676.5 million tenge per year, or only 19% of the total amount of damage. This includes compensation for damages during the pre-trial investigation, as well as in cases sent to court. As part of this analysis, the author identified indicators of environmentally sustainable development (Table 1).
Table 1. Indicators of environmentally sustainable development

<table>
<thead>
<tr>
<th>Indicator group</th>
<th>Unit</th>
<th>Indicator</th>
<th>Kazakhstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology</td>
<td>thousand tenge</td>
<td>The volume of current costs for environmental protection</td>
<td>210.397.122</td>
</tr>
<tr>
<td></td>
<td>thousand tenge</td>
<td>Investments aimed at protecting the environment</td>
<td>173.618.612</td>
</tr>
<tr>
<td></td>
<td>thousand tenge</td>
<td>Air emissions</td>
<td>2.441</td>
</tr>
<tr>
<td></td>
<td>thousand tenge</td>
<td>Environmental taxation</td>
<td>1.389.912.223</td>
</tr>
</tbody>
</table>

Source: compiled by authors

In the Republic of Kazakhstan, environmental problems are aggravated every day, and the environmental crisis is intensifying, which leads to a crisis of all civilizations. Kazakhstan needs a robust climate change adaptation strategy that considers the specific vulnerabilities and risks faced by different regions and sectors. This strategy should involve a multi-stakeholder approach, integrating the expertise of government agencies, scientific institutions, civil society organizations, and local communities. Kazakhstan clearly needs the right strategy for adapting to climate change, as evidenced by the data characterizing that there are problems that affect the changing situation in Kazakhstan and the environment, which subsequently affect the number of natural hazards (Figure 3).

Figure 3. Indicators influencing the change in the situation in Kazakhstan and the environment

Figure 4. Number of funded environmental projects, million tenge

Summarizing the above, it can be noted that the study of the identity of the victim is of great importance not only for the qualification of the crime, but also for the study and prevention of crime of various kinds and
types, as well as in the environment. In recent years, more and more attention in criminological research has been paid to the development of a new scientific direction in criminology - victimology, which helps in the development of preventive measures. Therefore, issues related to victimology in general, including the problem of protection of victims of crime, have always attracted the attention and interest of domestic scientists in the field of criminal law, criminology and criminal procedure.

Conclusion

The legal support of victimological prevention for environmental crimes is a crucial aspect of combatting these offenses and promoting a sustainable future. By adopting proactive measures, providing victim compensation, fostering international cooperation, and strengthening legal frameworks, we can deter environmental criminals and safeguard the well-being of affected individuals and ecosystems. Governments, organizations, and individuals must work together to ensure that justice is served, and those responsible for environmental crimes are held accountable. Only through collective action can we create a world where environmental crimes are minimized, victims are supported, and the planet thrives.

The study gives grounds to offer some conclusions, thanks to which it is possible to improve measures for victimological prevention of crime:

- improve the legal support of victimization prevention it is recommended to systematize this activity in a unified legal system, which will contribute to achieving a high level, unity, continuity and consistency in the performance of functions by the subjects of this activity. A unified legal system should be a legal tool for implementing measures to influence victimization;
- develop a concept for victim assistance and victimological prevention, aimed at distributing unified state funds for social, legal and material assistance to all victims of crime, and introducing special protection measures for public servants;
- creation of a state-public system of victimological assistance to citizens and legalization of schemes for compensatory support for victims at the expense of decentralized support funds, which can be formed by imposing additional legal costs on criminals;
- coordinating activities for organizing and conducting victimological and preventive work should belong to local executive authorities, and at the republican level - to republican executive authorities. This, in turn, will mean that they perform directly managerial functions (analysis, planning, organization, control and interaction), and will also allow all participants (subjects) of prevention activities to concentrate their efforts on the implementation of victimological tasks, to determine the range of general crime prevention measures, with taking into account the specifics of the region (served territory), the implementation and implementation of measures to influence victimization, purposefully and rationally use the available forces and means;
- increasing the professional level of employees of internal affairs bodies through courses, seminars, borrowing foreign experience.

Addressing the environmental challenges and climate change impacts in Kazakhstan requires a proactive and coordinated approach. Adopting a comprehensive adaptation strategy, Kazakhstan can strive to mitigate the environmental crisis, protect its natural resources, and enhance the resilience of its ecosystems and communities in the face of a changing climate.

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Credit Authorship Contribution Statement

Dauren Malikov proposed and substantiated the concept of scientific research, due to its purpose of implementation and the tasks set and planned the study.

Natalya Sidorova carried out a comparative analysis on the topic under study and thereby summarized the results of the study, and formulated conclusions and proposals on the problem under study.

Saltanat Atakhanova developed the design of an experimental study on the topic, collected and systematized the data that were obtained during the scientific study and accumulated them into a research model.

Manshuk Rakhimgulova concept the methodology and formal analysis of the research, conducted an analysis of the scientific literature and its generalization, and also collected data on the necessary literature on the topic.

Sholpan Malikova contributed to the analysis and results of research, carried out the development of the methodology of scientific research.
Larissa Kussainova wrote the data curation and visualization and funding acquisition, carried out a critical review of the text of the article and its editing in accordance with the requirements and provisions, as well as its design.

Declaration of Competing Interest
The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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