Crimes against the Environment: Green Criminology and Research Challenges in Slovenia

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Purpose:
We are consistently confronted by disagreements between technological developments and the comfort which they entail, and striving for a clean environment that ensures long-term quality of life. Global warming, acid rain, air and water pollution are all part of modern societies with developed or developing economic and industrial systems. The purpose of this paper is to shed light on the development and importance of the responses of green criminology to environmental criminality in Slovenia.

Methodology:
The literature review shows that Slovene criminologists became aware of the appearance and consequences of environmental crime as early as 1981, but since then criminological research into environmental crime in Slovenia declined until 2005.

Findings:
Although one is faced by a lack of previous criminological endeavours in the field of environmental criminality, there is no need to ‘jump to conclusions’. It is increasingly obvious that the rationalization of green criminology, in terms of its deviation from vocal environmental movements and a detailed exploration of the legalization of individual legal norms is required, as is a more specific definition of green criminology. In other words, a more precise definition of what constitutes a crime against the environment would be helpful.

Research limitations/implications:
We live in a constantly changing modern society and, consequently, the forms of environmental crime are changing too. The review of literature revealed the very narrow direction of much research, which covered only a small part of the whole field of environmental crime. The limited research in this field highlights a need to engage with more advanced methodological approaches to aid our understanding of environmental crime. The need to adopt alternative methodologies to understand contemporary environmental threats is made all the more real as such threats are in a constant state of change. Systems of social control need to remain true to the state of the problem. At present, this is not happening due to a lack of adequate knowledge and experience.
The presented research model represents an important starting point for our understanding changes to the nature of such threats and for ensuring appropriate legal protection of the environment in the Republic of Slovenia and for developing a body of legal and scientific expertise around this area.

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**Keywords**: environmental crime, environmental criminality, green criminology, victimology, crime prevention, environmental justice.

1  **INTRODUCTION**

Global warming, acid rain, air and water pollution are all part of modern societies with developed or developing economic and industrial systems. Not only are natural habitats disappearing, causing the extinction of rare plant and animal species, but there is also a rise in the number of abortions, births of handicapped babies, skin damage, allergies, headaches and an increased number of cancer-based illnesses; confirmed results of environmental pollution, which is mostly caused by environmental crime. Criminological discussions about environmental crime refer to several interrelated questions, e.g. how this crime is realized, how it is measured, explained, prevented, regulated, punished, among others. The main characteristics of environmental crime, from the point of view of criminology, are: the collectivity and anonymity of the victim, the insignificant visibility of the perpetrator of such acts, an abstract comprehension of the damage caused to the environment, a widespread imperceptibility of ecological crimes and recognised complications involved with generating evidence with which to prosecute these crimes.

The form of environmental crime shows itself to be constantly evolving. A historical review of the development of different sciences which have addressed the phenomenon of environmental crime shows that they have consistently converged in their explanation of this phenomenon. It is necessary to reform and add to individual theories in the light of knowledge generated by other theories. Likewise criminological theories cannot exist solely to explain human victimisation. Such theory needs to expand to encompass the whole environment\(^1\), within the framework of environmental criminology. Further development of theories requires cooperation between different models and needs to consider the ecological borders and parameters of collective human activity.

To understand more fully what environmental crime is (what is punishable, how such crimes are punished and who the victims of environmental crime are) we first need to define some basic terms. Answers to questions such as who committed the crime, why they committed it and how the crime was committed against the environment, are expected to be explained by criminology. Moreover, in the past

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1 The term environment in its wider meaning refers to the natural, cultural and social environment, in its narrow meaning it refers only to the natural environment (Mihalič, 1993).
decade we have witnessed numerous discussions amongst criminologists regarding
the challenges of defining a branch of criminology that deals with research
into crimes against the environment. Initially there have been two suggestions:
environmental criminology and green criminology. Discussion surrounding the
suitability of these labels, has fuelled new resistance, especially among British,
American and Australian criminologists, which will inhibit the natural development
of this rather new branch of criminology. The fact that incriminations against our
common biosphere happen every day (Trevors and Saier, 2007) is unchallengeable.
It is, therefore, necessary to take a step forward and protect those undamaged areas
of the environment.

2 ENVIRONMENTAL CRIME AND GREEN CRIMINOLOGY –
DEFINITIONAL PROBLEMS

The problem of the agreed definition of the term “environmental crime” comes
from different concepts, because some people use other terms for “environmental
crime”, such as “environmental criminality” or “criminality of environmental
protection” (also “criminality of the environment”, “green crimes”, “crimes
against the environment” and “ecocide”). Such disagreement in determining the
basic meaning of the term have impacted upon criminological divisions and our
ability to provide appropriate legal definitions, meaning that the criminal justice
system is at present not adequately prepared to deal with this problem. A number
of different reasons may explain the problems of defining environmental crime
and may range from theoretical and abstract differences to political concepts due
to the different interests of individual countries. More recently, we might explain
this problem through the globalization of human society. Nowadays it is extremely
hard to avoid the influence of the international dimensions of life and, consequently,
of harming the environment. Therefore, by forming a definition of environmental
crime it is necessary to take into consideration both features and adjust them when
searching for solutions. By discussing and abolishing the causes of such differences
on the individual, local, regional, state, interstate and international levels, and
by using accepted methods and tools, causes could grouped on all levels from
the international down to the individual. Such issues help clarify the definition,
and division, of environmental crime. In all further definitions, the possibility of
overlapping has to be taken into consideration and if possible, avoided.

When talking about green criminology, it is necessary to point out the
difference between two meanings of criminology. The problem of ‘changing’ the
meaning of the terms green criminology and environmental criminology is ever-
present. This naming does not represent such a big problem in Slovenia, as it does
in English speaking countries, where the term ‘environmental criminology’ has
two different meanings. Therefore, a non-expert of the field of criminology could
translate the term incorrectly. The Slovene translation could be green criminology
and environmental criminology, in which we distinguish two different branches
of criminology. Green criminology, also known as environmental criminology,
represents the branch of criminology that deals with research into criminality.
against the environment and associated phenomena. Lynch (1990) was the first to use the term ‘green criminology’. Environmental criminology is also a branch of criminology, which in contrast to the green criminology, like Kanduč (1999: 328) quotes, deals with researching special – physical and social – determinations of patterns of criminal behaviour. One of its Pioneers, Ray Jeffery, developed, by using behaviourism, a model of preventing criminal behaviour through the reconstitution of the exterior space (or ‘environment’). Brantingham and Brantingham (1981) stress, in environmental criminology, the marking of criminal spaces on maps. Likewise, environmental criminology is closely connected with situational criminal prevention.

Because of the lack of an adequate terminology and commonly accepted internationally acknowledged definition problems at all levels of discussion, punishment and prevention of environmental crime are appearing. The lack of an agreed definition of green criminology presents an additional problem in the field of research surrounding environmental criminality. As Ross (2005: 503) warns, the recognition of environmental crime is more than obvious yet its definition is anything but easy. Similarly, it is difficult to develop satisfactory theoretical frames of green criminology as a new branch of the criminology. Furthermore, no individual definition of environmental crime and green criminology has been generally accepted yet. The debate about the unified definition of green criminology is more dynamic in comparison to definitional debates surrounding the term ‘environmental crime’ as will be shown below.

2.1 The Term Environmental Crime

As Meško (2008a) stressed, the key questions being asked by criminologists are: What are the reasons that people commit crimes? How severe has a punishment to be, so that people would be deterred from committing crimes? Could the degree of penalty be a factor of preventing criminality at any level? Is criminality a social or an individual phenomenon? Is criminality a psychological, biological, social or an economical phenomenon? One should be aware of the above questions when undertaking research in, or defining the term, environmental crime. This is closely connected with the etiology and phenomenology of environmental crime.

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2 Lynch (1990) first introduced the term ‘green criminology’ to criminological discussions, in the 1990s. British criminologists (Clifford and Edwards, 1998; Groombridge, 1998; Lane, 1998; South, 1998) developed a suggestion about the formation of the term ‘green criminology’, which researches crimes against the environment. Green criminology was formed from discussions regarding criminological studies of ecological criminality, which was undertaken by elites. Carrabine, Lee, Plummer, South and Iganski, (2004: 28) defined four main tasks of green criminology: 1. Taking note of the existence of green crimes in every form and developing basic typologies and differences; 2. Sketching different directions in this field and evaluating the complications and political influences; 3. Connecting green crimes with social inequalities; 4. Evaluating the role of the green social movement in achieving social changes.

3 Meško (2008a: 41) defines criminal etiology as the research of human nature, motives, state of mind, social conditions and economical factors. Criminal phenomenology deals with forms of phenomena, structure, structural changes and the dynamics of criminality and addresses the visible forms of
Disagreements about the term ecological or environmental crime do not exist only at a theoretical level. Beside disagreements surrounding a satisfactory term, further problems are caused by different criminal-political concepts, because the interests of states regarding environmental criminal law can vary greatly. Similarly, the typologies of social politics in (post)-industrial societies are different and in today’s globalized world it is almost impossible to avoid the international dimensions of life. Due to this, there is little hope of an independently formed political stance on environmental protection in some countries. Without doubt environmental crime in modern times signifies one of the greatest challenges for legal theory and practice, criminal law legislation; criminology, sociology, ecology, criminalistics, victimology and crime prevention.

Environmental crime, like other sorts of crimes, is not an exclusive legal term and is taught within numerous scientific disciplines. Environmental crime, according to Pečar (1981: 40), is every permanent or temporary act or process which has a negative influence on the environment, people's health or natural resources, including; building, changing, abandonment and destruction of buildings; waste processing and elimination of waste; emissions into water, air or soil; transport and handling of dangerous substances; damaging or destructing of natural resources; reduction of biological diversity or reduction of natural genetic resources; and other activities or interventions, which put the environment at risk. Later, he defined that environmental crime results from selfishness, which is determined by the need for profit associated with the control of nature (Pečar, 1988: 116). He characterized the pollution of nature and the environment as a devaluation of the environment, what he also named ‘ecocide’ – intentional destruction of the living environment. Under this term the author classified examples of waste dumping and negative environmental interventions (Pečar, 1981).

For Clifford (1998) environmental crime is an act which is committed with the intention of damaging or causing damage to the ecological and biological systems to ensure business or personal benefit. According to Situ and Emmons (2000), environmental crime is actually a ‘creation’ of environmental legislation, because behaviour, however threatening or aggressive, which does not violate the legislation, is not a criminal act. The law defines what will be defined as environmental crime, but it also leads to doubts about the reliability of the legislative branch of the authorities and the state as the most responsible for organizing this field of expertise. It is true that dividing environmental crime into a discourse that solely addresses the impact of the criminal justice system could tell us much about the direction and relation of the individual country to environmental protection, because every country in its own way regulates the field of its criminal justice system response towards environmental protection in its penal code (if it has one, crimes and criminal behavior. Finally, it leads to statements about personal and environmental factors as motives of criminality.

4 While modern countries with stable economic systems tend to protect ecological systems by using criminal law, in less developed countries and other transitional economies, environmental (economical) crime is de facto a legalized form. In most of the legal systems of these countries there are ecological criminal acts and ecological criminal law, but none of them are enforced by competent authorities. Modern criminology in such cases speaks about ‘normalization of the criminal’ (Selinšek, 2006: 223).
of course). At this point it is necessary to give a warning, that such a division is relative. It is also about the individual division of each country, which is very hard or almost impossible to compare with others. Furthermore, Situ and Emmons (2000: 3-4) define environmental crime as a forbidden act, which is against the law and therefore a subject of criminal prosecution and sanctions. This procedure is harming or threatening to human physical safety or health, as well as to the environment itself. However, it serves the interests of certain organizations (usually corporations) or individuals. Such a legal definition is adopted Gibbons (1994) who defined environmental crime as an intentional or well-considered criminal act, which results in actual and material damaging of water, environment, air, soil or countryside.

Environmental crime is classified by many authors (Kanduč, 1994; Croall, 1992; Pečar, 1996; Reid, 2004; Dobovšek, 1997; Sutherland, 1983; Poveda, 1994; etc.) under white-collar crime, whilst some other authors (Situ and Emmons, 2000; Siegel, 2001) classify it as business crime. Adler, Mueller and Laufer (2007: 287) warned that the term white-collar crime should be changed and that, instead, the following terms should be used separately: corporation crime and occupational crime, because both of them could be defined clearly. The reason for this kind of thinking comes from the fact that white-collar crimes contain a heterogenic mixture of corporate and individual crimes; from cheating, fraud and corruption to environmental pollution, where the victims vary from an inventive investor to an unsuspicious client. No individual or group is immune. The aforementioned authors present an extension to the limited definition provided by Sutherland (1983) because they accept that individuals can be the perpetrator and victim of such crimes. The development of new forms of environmental crime continues to influence the emergence of new ways of defining it.

A special feature of environmental crime reflects two real victims: people and environment. Pečar (1981: 42) warns, that from the victim's viewpoint,

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5 White collar crime is a criminal act, where the person committing a crime comes from a ‘white collar’ or high-status profession (Croall, 1992). ‘White collar’ expresses a historical distinction among them and ordinary workers (‘blue collar’) and shows a higher social and economic status and higher reputation at work and in society (Poveda, 1994). White-collar crime is defined as breaking the law as an individual or a group, through one’s occupation (Coleman, 1989). White-collar crime is a crime, which can be committed by an individual or a group at a certain working place. People are increasingly more and more dependent on different bureaucratic structures where, without informal control, the danger that these public servants and agents will abuse their authority increases (Meško, 2008a: 268). Individual forms of environmental crime could be connected with criminal acts in the working place.

6 Business crime is an intentional act which breaks criminal law committed by an individual or a group in a corporation to its own benefit (Reid, 2004: 250). Pearce and Tombs (1998: 107-108) define corporation crime as illegal acts which are punished by the state due to administrative, civil or criminal law that are a result of an intentional decision within a legitimate formal organization. Such actions are performed in accordance with the normative goals, standards, operating processes or cultural standards of the organization. Their intention is to serve the corporation itself. Corporate crime is divided into the following categories: financial criminality; crimes committed directly against the consumer; crimes, which come out directly from employment relations; crimes in connection with health and security and crimes against the environment.

7 Situ and Emmons (2000) warn that such victimization of sometimes large groups of people or even inhabitants of a region is hidden, and sometimes could remain undiscovered for decades. The
environmental criminality is very similar to economic and other business criminality, where there are many victims with a lot of damage, which, when divided by thousands, do not represent a sizeable sacrifice for each individual. All this makes the problem of defining the term of environmental crime and green criminology even bigger.

The problem of the agreed definition of environmental crime has its basis in different understandings (environmental crime is also named as criminality of the environment, environmental criminality, ecocide, green crimes, etc.). Such difference of opinion in defining the basic naming of the term continues criminological and legal division and leads to inadequate criminal justice solutions to this problem. Reasons for disagreements in defining the term of environmental crime differ from theoretical and abstract differences to political concepts due to different interests of individual countries. With the incrimination of phenomena against the environment, a new field of expertise was born for criminology. This field differs from past research work, because it is all about a new deviation, which threatens resources in a special way, and it is all about a different causality as well (Pečar, 1981: 41). Criminological discussions about environmental crime are mostly not just semantic; however, they refer to the question of how this criminality is portrayed in real life, how it is measured, explained, prevented, regulated and sanctioned. Kanduč (1997: 13) suggests that, in respect of environmental criminality that we could talk about ‘elite criminality’ where powerful individuals and economic and other organizations are included, in which the environmental crime as such contains very different forms of harmful activities, whose motive is a desire for material enrichment. Harmful actions, which are done against the environment by a sole individual, are insignificant, but when we sum up two million of such activities, the issue becomes more important. Besides, the sociological definition extends the term environmental crime more than the definition of criminal law. The term ‘environmental crime’ extends to an unsocial behaviour in general (behaviour, which is in contradiction of valid behavioural norms but is not necessarily punishable) (Žnidaršič–Kranjc, 1998: 201). Furthermore, green criminology is a science that provides answers to key criminological questions when talking about crimes against the environment.

2.2 The Term Green Criminology

Criminology is not just a legal, but also an empirical science, which uses knowledge drawn from empirical research to explain the reasons that account for criminal acts against the environment. With the advent of crimes against the environment, a new field of expertise was born in criminology. This field differs from the research work of the past, because it is all about a new deviation, based on a different form of causality (Pečar, 1981: 41). According to Meško’s (2008a) definition of criminology, environment, which is the ‘victim’, is usually a public property (parks, rivers, lakes, coves, etc.) or sources, where there is no private demand (air, groundwater, soil, etc.).

Criminal law defines criminality as all actions which contradict legal norms (Selinšek, 2006: 224).
environmental crime could be defined as a phenomenological and causal-genetic science, which studies forms of deviant behavior that are committed against the environment by man. Different irregularities, indecencies, violations and crimes against nature are addressed among British (Clifford, Edwards, Groobridge, Lane, South), American (Stretsky, Lynch, Ross, Koser Wilson, Edwards, Fields, Hays, Seis) and Australian (White) criminologists as green crimes. In the past two decades, green criminology shared some of the most important findings of its research work and used them in the prevention of intentional and negative changes of the environment. However, it is worth remembering the following point made by White (2003: 293): “An individual cannot choose a certain environmental problem and expect from it that it would naturally meet all the aspects of criminological theory and practice.”

South (1998: 225) warns with good cause that, in the 21st century, criminology has to be aware of the meaning of the environment, and therefore has to be wide enough, intellectually, to encompass environmental, human and animal rights and the threats against them. From the naturalistic and eco-centric point of view, man represents, besides animal and plant life, a part of a perfect natural cycle, without which he cannot survive. However, his presence in this cycle is also necessary. Thus, from a sociological point of view, all living beings have to be treated equally.

White (2008: 8) makes a point that green criminology fundamentally refers to the study of environmental threats, environmental legislation and environmental activities on the part of criminologists. The field of interest of green criminology includes certain incidents and events that often relate to the geopolitical field globalism. White (2003: 484) points out that green criminology represents more than just a simple discussion about the environment in general and about what is necessary for its conservation and protection. In the framework of green criminology, research and asking ‘tough’ questions are necessary, even if we agree with the answers or not. Such questions relate to those defined by South (1998: 214): pollution and its regulation; corporation criminality and its influence on the environment; health and safety at work; organized criminality and corruption in connection with the illegal dumping of toxic materials; the influence of law enforcement and the army on the environment and population; damaging the land and water ecosystems and the police handling of perceived criminal acts or violations. In an era of constant changes and development, new forms of environmental crime are appearing. The list of South’s (1998) environmental phenomena, which belong to the field of criminological research into environmental crime, could be expanded with reference to the following: systematic clearing and plundering of forests; deliberate incorrect use of spray chemicals and fertilizers in agriculture; smuggling and dealing rare plant and animal species; incorrect storage.

9 The theoretical frame of green criminology is hard to define. White (2008: 14) is clear and brief: “There is no green criminological theory as such.” Closest to the theory is South (1998: 212), although he talks only about the perspective or ecological viewpoints and not about theory. White (2003) also talks about topics and questions for green criminology on one hand, whilst Lynch and Stretsky (2003), on the other hand, refer to the implications for green criminology. Clear definitions are rarely presented making successful research into green crimes more difficult. Halsey (2004) criticises green criminology because its lack of a (suitable) definition and challenges criminologists to reduce ambiguity with a clear definition of green criminology.
of toxic waste or their illegal export into 3rd world countries; light pollution; and the
criminal act of a country overlooking violations of the environmental legislation
and consciously placing its citizens in a threatening situation for financial or other
profit. South (1998) pointed out the importance of a multidisciplinary approach to
fields of research, but today it is shown that cooperation of different disciplines is
also inevitable, especially cooperation between sociological and naturalistic fields.
White (2008: 29) points out the urgent need for the cooperation of criminology
with phytology, zoology, geography, geology and other natural and sociological
sciences, sociology, criminalistics and criminal law, political science, psychology,
philosophy and ethics.

Lynch and Stretsky (2007: 266) warn that criminology has been incredibly slow
in responding to the problems of threatening the environment and environmental
crime. The required reorganization and redirection from classical to new forms of
criminality came late. They believe that now it is time for criminologists to start
treating environmental problems very seriously and to start cooperating with other
sciences. Green criminology, we think, could be an opportunity for cooperation
between natural and sociological disciplines.

A historical overview of the development of green criminology confirms
White's (2008: 9) thinking that the development of green criminology in the past
20 years has led to new interests, concepts and analytical techniques. Whit himself
thinks that an increasing awareness of how serious the problem of degradation
and destruction of the environment is accounts for this condition. We also witness
the increasing importance and interest of traditional criminology in such issues.
The connection between the sociological and naturalistic sciences in the field of
environmental problems is becoming generally accepted. The same is true for the
multi-disciplinarity of approaches to solve and research environmental problems.
With time we will witness larger and more positive changes in connection with
green criminology. More and more discussions will take place about why, how and
in what way green criminology was developed.

3 THE LACK OF PREVIOUS CRIMINOLOGICAL ENDEAVOURS
IN THE FIELD OF ENVIRONMENTAL CRIMINALITY

When checking the literature regarding green criminology a lot of questions occur.
Ones research curiosity is being stimulated by the fact that there is very little
interest of criminologists in environmental problems. At this point, we recognize
a necessary process of reconceptualization in the field of increasing environmental
problems. The problem of a lack of definition make further directed analysis and
research difficult. As White (2003; 2008), South (1998) and Lynch and Stretsky
(2007) suggest, the field of green criminology needs to offer a more sophisticated
and suitable relation between human needs and unstoppable ecological processes.
The relation between man and the environment has generated debate since green
criminology's inception.

Articles, monographs and other publications about green criminology were
very rare until five years ago. Lynch, McGurin and Fenwick (2004) and Lynch
and Stretsky (2007) were critical of such a lack of (criminological) research into environmental crime and lamented the lack of literature pertaining to these new forms of crime. This criticism was also confirmed by Zilney, McGurrin and Zahran (2006), who noted the frequency with which criminology is present in publications in the field of environmental justice. By choosing 9 key words10 in collaboration with experts of the field of green criminology (Lynch and Stretsky) the scientists reviewed the primary base of SSCI publications, to which they also added the base of Social Sciences Abstracts and the base of Criminal Justice Abstracts. The review contained more than 1725 magazines and 50 social disciplines from 1970 to 2003. The results have shown that in the period of the last 30 years, only ten scientific publications in the field of environmental criminality were published, which is a surprisingly low number and is clearly evident in Figure 1 below.

As is obvious from Figure 1, the study of Zielney et al. (2006) has shown clearly the lack of criminological research in the field of environmental problems, especially environmental crime. In the past six years, that is from the last year that was captured in the study, until now (2003-2009) one witnesses a great change in criminologists’ interest in the field of environmental crime, as well as an substantially increased number of publications in the area of green criminology. To check how big the increase was, in comparison with the performed study of Zielney et al. (2006), the study should be repeated, continued or expanded.

A similar situation is evident from a historical overview of developments in the field of green criminology and from the number of publications published in Slovenia. In September a survey was conducted reviewing the Slovene Co-operative Online Bibliographic System & Services base, which contains all the

10 Environmental racism, environmental justice, environmental injustice, environmental equality, environmental inequality, green criminology, eco-criminology, environmental crime and environmental criminal acts.
published works in Slovenia. The survey used the same nine key-words that were used in the survey by Zielney et al. (2006). The review contained all publications in all social disciplines in Slovenia from 1970 to 2009. The results of the historical overview of publications in the field of green criminology in Slovene are presented in Figure 2 below.

The key problem in the Slovene criminological environment is that of unbelievably low interest, by criminologists, regarding the phenomena of environmental crime and the field of green criminology. The review shows a relatively intense development of environmental protection law on one hand and a very low interest of Slovenian criminologists for researching environmental crime, on the other. The one and only work in this field of expertise came in 1981, as Pečar tried to warn about new forms of criminality relating to green and environmental issues. Despite Pečar’s (1981) notes about predictions for the future, interest in green criminology died away. It was not until recently that we witnessed a renewed development of green criminology in Slovenia (Eman, 2008; Bučar-Ručman, 2009; Eman and Meško, 2009). At the same time it is necessary to consider the frames of development of green criminology worldwide, but nevertheless it is necessary to pay attention to special features that are important for our environment.

Rock (1994: 68) warned, a long time ago, that criminology needs new ideas and directions. From this point of view, the rationalization of green criminology in terms of deviation from vocal environmental movements and a detailed reflection about the legalization of individual legal norms and more specific definition of the field of research of green criminology is necessary. In other words, a more precise definition of crimes against the environment is necessary. It is necessary to find the answers on basic questions such as who, where, what, why and how, and to progress from this position as the crime type changes over time. Similarly, it is always necessary to take contrary viewpoints and criticisms into account and to address the issue from another perspective. Therefore it is logical that we, by continuing our research of environmental problems, start with criticisms of the field of green criminology. What works, and what does not, and why?
4 ENVIRONMENTAL CRIME AND RESEARCH CHALLENGES

First of all, a historical review of the development of green and environmental criminology in Slovenia clearly shows a greatly underdeveloped field. Environmental crime is specific, on one hand, because of the offenders, their motives and the chosen modus operandi, and on the other hand because of the particular features of two different victims. Environmental crime acts do not usually affect human victims directly, as is the case in classical forms of criminality. In this case, the first victim of a criminal act of environmental crime is the environment, which afterward threatens humans (through, for example, poisoned water sources, toxic gas release or polluted soil). Green criminology has developed as a branch of a science about criminal acts and those who perpetrate them, which researches and describes the causes and forms of a deviant behaviour. After all, criminology is not a legal, but an empirical science, which draws on empirical research and data. Green criminology developed during the mid 1970s. Although it lacked clarity, a lack of necessary knowledge from the naturalistic field and a small amount of research work and publications, it succeeded to set a basis for further work. In just three decades, the development of green criminology underwent numerous attempts to define environmental crime and environmental criminality. There is a difference between the criminal law and the sociological approach to defining environmental crime. The first one defines the parameters by following the practice, which is legally ruled; the second approach defines criminal cases, which could be defined within existing criminal law regulations (Halsey and White, 1998). Definitions of the term ‘green criminology’ are due to difficulties caused by British and American criminologists (concerning double meaning of the term ‘environmental criminology’) very rare, except for the suggestion of Lynch (1990) about of the use of the term ‘green criminology’. In this field, especially on topics such as the definition of green criminology and environmental crime, most work comes from Rob D. White (2003; 2004; 2007; 2008; 2009; White and Habibis, 2005). Although the problem of a unified and largely accepted definition of the term green criminology and environmental crime is a primary focus for criminologists all over the world, and also in Slovenia, in the research field of environmental criminality some other questions and challenges occur.

Secondly, the relationship between man and the environment was the central focus of scientific discussions. In the field of environmental crime one witnesses special features, when compared to other forms of criminality, such as that concerning the punishment of offenders (which is not considered of primary importance) which is partly due to the difficulties in assessing the identity of such offenders. The most important issue is the prevention of environmental crime to reduce potential environmental and social damage. Criminologists should be more active in researching environmental crime and finding more effective supervision systems and methods of preventing environmental crime. The persistent nature of environmental crime within society makes such effort even harder. At the forefront is the problem of defining the relationship between man and the environment. As already mentioned, from a sociological point of view, all living beings have to be treated equally. The phenomena of threatening humanity, which is performed...
directly through threatening the environment, and the interest of criminology for those kind of crime forms, has led to changes in the sociology of crime in regard of the need to explore the development, existence, expansion and changes associated with this phenomena. It turned out that in most cases it is not about the relationship between two individuals (a victim and an offender) and a new form of criminality has occurred where man’s relationship with another has been supplanted by a man’s relationship with the environment. By recognizing nature, or its constituent parts, as victims of criminal acts, natural science broke into the field of criminological research, which caused an unwanted confusion through the presentation of new fields, phenomena and terms. Regarding the resulting condition, South (1998: 225) points out that there is an urgent need for consideration regarding the ‘green viewpoints’ demands new theoretic tools and practical solutions.

Thirdly, we live in an ever-changing modern society and, consequently, the forms of environmental crime are changing too. The review of literature reveals the very narrow field of research, which covers only a small part of the whole field of environmental crime. The narrow research of this field clearly shows the need to extend methodological approaches in criminological studies of environmental crime. Beside supplementing and verifying our various understandings, the need for alternative approaches to researching modern forms of environmental threats also arises, because with human development and modern progress the forms and offenders of environmental crimes are changing. The criminal justice system needs to increase its engagement with the problem because, at present, there is a lack of adequate knowledge and experience. The results of more contemporary research results represent a very useful basis for further more complex and more directed research, and also for the preparation of programs, resolutions and other documents about responding to changes in the environment and its protection. Furthermore, liaison between researchers and scientists at all levels will represent the identification of new and improved responses to environmental threats which are a result of environmental crime. Similarly, the creation and strengthening of an effective and close cooperation of competent subjects and institutions, and the aforementioned discovery and defining of guidelines for further research and education, would be welcome developments. One must be aware, that if one wants to undertake meaningful research in this area, one has to understand the complexity of environmental crime in Slovenia, the forms that it takes, the impact that it has on victims and, also, appreciate those types of intervention which might lead to its prevention.

Furthermore, increasingly, attention is drawn into relationship between the environment and safety. This is reflected in the actions of numerous countries who are trying to increase the level of international cooperation in the field of environmental protection. These reflect a need to reduce the negative consequences of environmental degradation, especially in those areas where preventive methods are ineffective. The field of environmental crime, at both a national and global level, is still not investigated to a great extent. The need for adequate criteria and a more structural and planned approach to such problems and responses is growing. Similarly, there is a growing comprehension that the consequences of environmental crime are becoming increasingly threatening.
As pointed out by Meško (2008b: 31), issues surrounding the transfer of crime and criminal justice policies between countries and cultures are important. Accordingly it is important to understand just who is instigating such changes. The purpose of comparative studies of crime and criminal justice is to chart the impact of cultural, political, economic and other impacts on differences in attitudes towards law enforcement responses to crime and criminality. Comparative criminology\textsuperscript{11} enables all this and, for this reason, it should be drawn upon more frequently in comparisons of environmental crime forms, green criminological research and environmental justice responses between countries.

Some countries have typical characteristics in terms of the environmental crime they witness, and those who commit them. For this reason, universal comparisons should be made. Comparative criminology could be used to develop a survey that would originate from Sutherland’s (in Sutherland and Cressey, 1974) definition of criminology\textsuperscript{12}. The thesis could implicitly be expressed in a form of research questions listed below:

- Are there any typical law enforcement responses to environmental crime and to what extent do they lead to changes in the prevalence of environmental crime?
- What leads individuals to commit environmental crimes? Which are the most frequently committed criminal acts against the environment? Is there a specific group of individuals who commit such crimes?

\textsuperscript{11} Different authors (Beirne and Hill, 1991; Fields and Moore, 1996; Wardak and Sheptycki, 2005, Reichel, 2008) define comparative criminology as the systematic study of crime, law and social supervision in two or more cultures, noting that this aspect of criminology has been neglected in the past. Comparative criminology allows a comparison of crime and related phenomena between two or more countries. Criminologists who use this method try to identify the similarities and differences in crime patterns between different cultures. Ideally, it would be necessary to test the theory in as many different possible conditions. Howard and Newman (2001) have stressed that in the last decade criminologists have realized that the majority of existing criminal legal theories derive from only a few western countries. Over recent years, this situation has slowly changed, as criminologists, faced with rising crime rates, felt a strong need to share and exchange experiences and learn from each other. Reichel (2008: 30) points out that when undertaking comparisons between countries one needs to focus upon universal definitions and reporting and recording systems; otherwise, the results will not be representative, valid or useful.

\textsuperscript{12} Sutherland (in Sutherland and Cressey, 1974) explains that criminology focuses upon law formation, law breaking and social responses to crime. Meško (2008a) divides Sutherland’s definition of criminology into contexts and describes that it includes the sociology of law (formation of norms, laws and other sub-legal acts), law-breaking (etiology and phenomenology of deviant phenomena) and responses against law-breakers (informal and formal responses which could be classified into criminal justice and security studies) or, like Meško (2008a: 23) says, studies of criminal jurisdiction in the widest sense: police - public prosecution - courts of justice and penal institutions). Meško (2008a: 23-24) says that criminology includes research into the formation of social norms, the causes of social norm violation and formal and informal responses against lawbreakers. When defining criminology, Newburn (2007) also draws on Sutherland’s (in Newburn, 2007) definition, where he suggests that for criminologists, there are three crucial directions;
- Criminality studies;
- Studies of offenders;
- Studies of the criminal-justice and penal systems.
Sutherland (in Newburn, 2007) states that the goal of criminology is the development of principles and other forms of knowledge about the processes of law formation, criminality and discussions about crime prevention.
What forms do formal and informal responses against environmental lawbreakers take? To what extent do organisations cooperate in their actions against environmental criminals?

What forms and methods of environmental crime prevention would be useful and effective for the Slovenian environment?

By combining different methods it is possible to explain the problem of environmental crime on one hand and, on the other, ignorance towards its influence on the environment and human life. By analysing the contents of written sources (for example, expert literature, legislation and test cases) and through comparative analysis (for example, through comparison of environmental crime in Slovenia and other countries), one can form theoretical starting points which define the discourse of environmental crime among criminologists and other interested groups. Through the triangulation of qualitative and quantitative methods, we can generate a greater body of valid data.

5 CONCLUDING REMARKS

One is confronted by tensions between technological development and the wish for a clean environment. The outlined research model represents an important starting point for an expansion of the field of legal protection of the environment in the Republic of Slovenia (including possible supplements to, and changes in, legislation) and the development of a body of legal expertise. These will facilitate the safety of Slovenian society.

Research questions need to focus upon an analysis of the forms of environmental crime in Slovenia and the characteristics of the offenders and their victims. If one draws from the literature and previous research into environmental crime, any research model has to include a review and analysis of the context of environmental crime in Slovenia: the form of environmental crime, research into green criminology, (formal) social control responses, a definition of the characteristics of the victims of environmental crime and programs of environmental crime prevention. An integrated model of environmental crime requires more robust questions about the form of criminality and society’s responses to it. The model includes quantitative methods of analysis and comparisons of statistical databases, as well as qualitative methods, analyses of written sources and structural interviews. Thus, the main significance of the presented research model is its originality. It also serves to identify the real state of environmental crime in the Republic of Slovenia and allows for further research and activity in the field of environmental crime. Furthermore, expedience is central to environmental criminality, meaning that the development of preventative programs is also very important. Similarly, it is necessary to develop adequate training for police officers and representatives of other agencies involved in the field of environmental crime.

Although we are hindered by a lack of previous criminological endeavours in the field of environmental criminality, there is no need to ‘jump to conclusions’. It is increasingly obvious that we require the rationalization of green criminology in terms of deviation from vocal environmental movements, a detailed reflexion about
the legalization of individual legal norms and a more specific definition of the term ‘green criminology’. In other words, a more precise definition of crimes against the environment is necessary. It is necessary to find the answers to basic questions of who, where, what, why and how, and logically continue by follow the inevitable changes that will occur in this field. At this point, it is also necessary to explore opposing viewpoints and criticisms and to address the problem from another perspective. Thus it is logical, that we, by continuing our research of environmental problems, should start with a criticism of the field of green criminology. Green criminology can show what works and what does not work and perhaps even suggest why this should be the case. And (some day) criminology will give us the answers, but, in the meantime, one always has to keep in mind, that there is no Plan B for the human kind, because no Planet B exists.

REFERENCES

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