

## SECURITY MANAGEMENT AND ENVIRONMENTAL CRIME - SECURITY MANAGEMENT STUDENTS' ATTITUDES

Preliminary Note

## BEZBJEDNOSNI MENADŽMENT I EKOLOŠKI KRIMINAL- STAVOVI STUDENATA BEZBJEDNOSNOG MENADŽMENTA

Prethodno saopćenje

Kristina RADOJEVIĆ  
Aleksandra LJUŠTINA

### Abstract

**Reason(s) for writing and research problem(s):** Environmental crime represents a contemporary form of endangerment of our security. Repercussions of an environmental crime can be irreversible for Earth's biosphere.

**Aims of the paper (scientific and/or social):** The role of this paper is to assess knowledge of students studying safety management about their understanding of environmental crimes. This will be done through an analysis of safety management curriculum.

**Methodology/Design:** In this research, we analyzed views of students in their freshmen and senior year of undergraduate study of a Safety Management program. During this research students answered questions about the environment, endangerment of it, as well as environmental crime.

**Research/paper limitations:** This research was done at University of Belgrade – Faculty of Security, among freshmen and senior students.

**Results/Findings:** Both groups of students had similar views towards environment however, the group of senior students showed more proactive behavior and readiness to act against environmental crime.

**General conclusion:** Obtained results can be used as a foundation for an identification of new investigative questions that will address relationship between education and environmental crime.

**Research/paper validity:** One of the more effective ways in which contemporary society can combat environmental crime is an appropriate professional response. This can be done with education, in particular with education of students who are directly responsible in fight against environmental crime – Safety Managers.

### Keywords

environmental crime, security management, environment, corporate security

### Sažetak

**Inspiracija za rad i problemi koji se radom oslovljavaju:** Ekološki kriminal predstavlja suvremeni oblik ugrožavanja sigurnosti, a posljedice ekološkog kriminala mogu biti ireverzibilne po biosferu planete.

**Ciljevi rada (naučni i društveni):** Cilj rada je utvrđivanje razine znanja studenata bezbjednosnog menadžmenta o ekološkom kriminalu kroz analiza kurikuluma studija bezbjednosnog menadžmenta.

**Metodologija/Dizajn:** U istraživanju su analizirani stavovi studenata prve i četvrte godine studija bezbjednosnog menadžmenta o životnoj sredini, njenom ugrožavanju kao i njihovo znanje o ekološkom kriminalu. Studenti prve godine, kao tek završeni srednjoškolci, poslužili su kao kontrolna skupina u analizi kurikuluma bezbjednosnog menadžmenta u odnosu na ekološki kriminal.

**Ograničenja istraživanja:** Istraživanje je provedeno na Beogradskom univerzitetu - Fakultetu bezbjednosti, među studentima prve i četvrte godine studija.

**Rezultati/Nalazi:** Obje grupe studenata su imale slične stavove prema životnoj sredini, međutim studenti četvrte godine su pokazali proaktivnije ponašanje i spremnost za borbu protiv ekološkog kriminala.

**Generalni zaključak:** Imajući u vidu limitiranost istraživanja, ipak smatramo da dobiveni nalazi mogu poslužiti kao temelj za idetificiranje novih istraživačkih pitanja koja bi tretirali odnos obrazovanja i ekološkog kriminala.

**Opravdanost istraživanja:** Jedan od efikasnih načina da se savremeno društvo izbori sa ekološkim kriminalom jeste adekvatna i stručna reakcija. Ona se postiže kroz obrazovanje, prvenstveno obrazovanje onih koji su direktno zaduženi za borbu protiv ekološkog kriminala - menadžeri bezbjednosti.

### Ključne riječi

ekološki kriminal, bezbjednosni menadžment, životna sredina, korporativna bezbjednost

## 1. Introduction

Although security has always been a part of human lives, corporate security management in the modern sense of the word appeared in the middle of the 20<sup>th</sup> century when ASIS – *The American Society for Industrial Security* was founded (McCrie, 2001). Though this Society dealt primarily with practical problems regarding individual and property security and safety, it first started contemplating security from the management perspective. When the first Workplace Safety Laws were passed (in the first half of the 1970s), corporate security slowly began incorporating that aspect as well.

Today corporate security management presents a serious scientific discipline that has the assignment to resolve safety and security issues that corporations face, including environmental safety. Therefore, a number of universities worldwide have introduced a wide range of edu-

cational programmes that have the purpose to educate and train new and modern managers – corporate security managers.

The authors believe that modern educational programmes on the subject of corporate security must help students become aware of environmental issues, as well as environmental crime. The goal of raising this awareness is to educate future corporate security managers who will be willing and able to fight corporate environmental crimes. This means that it is not enough for them to know that there are some environmental issues, rather they should fully comprehend them and adopt environmentally proactive behaviour. In turn, this kind of behaviour has to help students, corporate security officers, corporate managers and the community they live and work to build environmental cultures. Moreover, there is general agreement among scientists that there is no safe and secure environment without a strong and widely accepted environmental culture.

With this idea in mind, the research focused on the students' attitudes towards environmental crime in general, and possibilities for prevention of these crimes. The target group was the students of the Faculty of Security Studies from the University of Belgrade. The Faculty of Security Studies incorporates different theoretical and practical approaches in the fields of international, state, environmental, public and corporate security. The students have the opportunity to choose different subjects and thus gain wide spectrum of security and safety related issues. Students who graduate from the faculty are future security and safety managers. Since those positions are very important for the security and safety of society in general, the authors believe that these students should be the ones whose mission is to create, develop and maintain environmental awareness throughout the society, especially in the field of environmental crime. In order to examine the attitudes towards environmental crime of these students, the authors constructed a questionnaire that included topics pertaining to ecology and environmental crime.

## **2. Theoretical background**

Most definitions of environmental crime cover acts or omissions that violate federal, state, or local environmental standards and laws (Situ and Emmons, 2000). However, some acts, especially those committed by corporations, may not violate the criminal law (Jarell, 2007). Many are violations of regulatory laws (Burns and Lynch, 2004). Many of these acts cause a great deal of harm to the environment and human health and safety and should therefore be treated as criminal (Clinard and Yeager, 1980).

Environmental crime typically affects many victims and the victimization may be gradual and/or silent (Frank and Lynch, 1992). In the USA, the Federal Bureau of Investigation (2003) focuses its attention on the most serious threats to public health and natural resources. These include cases involving handling of hazardous waste and pollutants that may endanger workers, environmental catastrophes that place entire communities at risk, government facility violations, businesses that have a long history of disregard for environmental laws and organized crime activities in the solid waste industry (Jarell, 2007). The majority of studies related to environmental crime fall within an area of research identified as 'environmental justice' with the main message that no person, regardless of race, class, or gender, should suffer the consequences of environmental degradation and therefore substantial political, social, and economic efforts should be made to protect the environment and human health (Jarell, 2007).

The devastating effects of environmental crime are not easy to determine or estimate. The consequence is that environmental crime is usually unnoticed and people are apathetic to the problems caused by environmental crime. For the most part, this kind of reaction to environmental crime is a direct result of public unawareness of the real dangers to health and safety posed by this type of criminal behaviour (Jarell, 2007). Most environmental hazards commanding political, public, and media attention have been the ones which could be easily connected to particular places and locations and where cause and effect are directly observable (Mayo and Hollander, 1991).

Environmental crimes are usually committed for economic reasons and more often, corporations place the value of money over public health (Jarell, 2007), especially, if they can expect that the penalty will be a monetary one in the way of the fine (Albanese and Pursley, 1993).

Kollmuss and Agyeman (2002) have pointed out that it is extremely difficult to explain why people behave in an environmentally responsible way. Although they are concerned for environment and its protection, they behave in a manner which has negative influence on environmental resources. Consciousness of environmental issues can be some kind of indicator of the future behaviour, but other factors may reinforce or inhibit environmentally responsible behaviour. These factors have been analyzed by researchers in social psychology (Álvarez and Vega, 2009). For instance, environmentally friendly attitudes of an anthropocentric nature have a weak correlation with water and energy saving, whilst there is a weak correlation between behaviour regarding waste and dimensions of ecocentricity and apathy to the environment (Garcia-Mira et al., 2005).

However, as a recent study on corporate crime has shown 'corporate managers are significantly less likely to violate environmental law when the act: (1) is perceived as likely dangerous to humans and wildlife and (2) is viewed as undesirable' (Simpson et al., 2013). Of course, it would be wrong to assume that we can deal with environmental crime just by passing normative regulations. Moral authority (Ayres and Braithwaite, 1992) must support those norms.

The authors believe that this kind of morally responsible attitude could be achieved within educational programmes for security management. Especially, since awareness is inevitably part of environmental literacy (Hungerford and Volk, 1990), and environmental culture (Yasvin, 2006). Those elements necessarily rely on education and knowledge (Veisi and Zarandian, 2011), and are of vital importance in creating environmental culture within society (King, 1998). The research conducted by Álvarez-Suarez and a group of authors (2013) has proven that education is an effective way for university students to obtain a statistically significant improvement in their understanding of the social and environmental impact of consumerism and its interaction with other environmental issues. In addition, it promotes the environmentally friendly attitudes and socially responsible behaviour through awareness of the problem and proactive behaviour in this regard. By enhancing knowledge using different strategies it is possible to improve awareness of environmental protection (Álvarez-Suarez et al., 2013).

Nevertheless, environmental protection cannot be successful without an environmental culture that is adequately developed, accepted and subjected to continual improvements. Environmental culture primarily relies on the people's conscience about environmental issues, i.e. their conscience about the nature and the environment. Developed environmental conscience means that an individual shows great perception, understanding and respect for the environment (Veisi and Zarandian, 2011), i.e. that that person really cares for the environment. Some

authors state that if we want to determine the level of environmental knowledge acquired by various groups of people and the ways in which they interact with the environment, the first step is to evaluate their environmental conscience (Ziadat, 2010). The elements important for creating and designing environmental culture may be presented in the following ways:

1. The state policy makers should adopt a proactive attitude and optimize legal and other regulations. The aim is to facilitate their application in concrete cases. Furthermore, this proactive attitude is reflected in the willingness of the state and society to implement environmental culture and environmental protection content in educational programmes at all levels. The content of educational and training programmes relating to environmental safety is a reliable indicator of the state's and citizens' dedication to environmental issues. Additionally, the educational system and training programmes may create the values and beliefs strengthening the incorporation of the mentioned content into everyday citizen's conduct, as well as the work of all services in charge of the environmental protection.
2. The integration of this issue into the society in general. The integration is possible through the application of regulations, clarification of concrete environmental crimes and clear and transparent revealing of the perpetrators and imposed sanctions. These transparent actions may lead to the adoption of the basic norms regulating an individual's conduct, as well as strengthen the citizens' confidence in public services in charge of clearing up such cases. In this way, the society sends the message that it is interested in increasing environmental safety of an individual and the environment in general.
3. Adopted values and modified citizens' conscience with regard to the environmental protection. At this level, citizens have every confidence in the state apparatus and accordingly change their conduct in order to respect rules and recognize the environmental crimes straightforwardly. As a result, the detection of environmental crimes is easier, enabling adequate sanctions for the perpetrators. Thus, the circle closes. When the majority of the citizens adopt particular values, then the public may put pressure on its fellow citizens and the government to act in accordance with them.

In order to change the environmental conscience, we should acquire basic knowledge about the environment, to become familiar with legal literature and regulations pertaining to it, as well as possible risks and means essential for the environmental protection (Veisi and Zaran-dian, 2011).

Subsequently, the creation of environmental culture through the awakening of environmental conscience requires the revision of the state policy, specific methodology and professional approach. Traditionally, the change of environmental culture correlates with education (Yasvin, 2006). We live in the ever-changing world. The educational system must change and correlate with the changing environment (Findak, 2014). However, the linkage between the culture and environmental education in particular has not proved successful so far (Scott and Goug, 2003; Yasvin, 2006; Rickinson and Lundholm, 2010; Saylan and Blumstein, 2011). Most authors are of the opinion that the changes in educational system should be more extensive. Simultaneously, the building of conscience and environmental culture must occur at more than one level, primarily through the sustainable environmental management, scientific researches as regards the environmental issues, as well as the activities relating to the revival and preservation of

the environment (Yasvin, 2006). Naturally, everything mentioned entails active participation of individuals and their contribution to the preservation of the environment.

Since the role of educational institutions at all levels of education in creating environmental literacy is of the utmost importance (Šehović, 2012), university education is also very important. It has to summarize all previous environmental knowledge in order to create environmentally aware college graduates. Additionally, when we talk about corporate security and safety managers, the ones that are in charge of environmental protection and environmental crime prevention, this assignment of universities is even more important. The universities in this field play a crucial role, because if there were no environmentally aware corporate security officers and managers, the effects of corporate environmental crime would be devastating. One more thing that should be achieved through university education of security managers is the awareness that the whole planet Earth is interconnected, and that local devastation of nature does not exist. However small the damage is, it inevitably has influence on other beings that live in that environment, and cumulative effect of all acts of environmental crime in the world could eventually lead to complete devastation of our planet.

### **3. Methodology**

The authors conducted the research in the period from October to December 2014 at Belgrade University - Faculty of Security Studies. The purpose of this research was to determine if the educational programmes of the security management provide enough environmental knowledge to prepare future corporate security managers for their work, especially in the field of environmental crime. The research question was whether the students of the final year of studies have more knowledge of environmental crime than the first year students have. Additional questions asked if the students knew how to fight against environmental crime, and if they were acquainted with possibilities of preventing such crimes.

In order to answer research questions, authors constructed a questionnaire and distributed it to the two main groups of students. The first group was a first year students and the second group the students of the final year of studies. The first group also served as a control group, since they had just enrolled in the course and had not had previous experience with the faculty curriculum. Data were analyzed using basic statistical methods in Excel, descriptive statistics and ANOVA, when it was applicable.

Apart from the issues relating to the demographic data, the questionnaire comprised two basic groups of questions. The first group referred to the general environmental education and the students' attitudes towards environmental issues. The second group of questions referred to the environmental crime. In order to acquire better quality data, the questionnaire included the students' comments and suggestions as regards environmental crime and the changes in educational programs.

The reliability of the tools was estimated using Cronbach's alpha. The quotients for the group of questions regarding the environmental knowledge were 0.75. For the group of questions pertaining to the environmental crime, Cronbach's alpha was 0.85.

The target group was composed of the students of the Faculty of Security Studies, future security managers: 136 first-year students (55% of the total number, which served as a control group) and 110 fourth-year students (45%). The sample should give information on the atti-

tudes the students have at the beginning of their studies, as well as what are their values and attitudes at the end of their studies.

**Table 1.** *The student's gender*

% of student's gender	Year	
	I	IV
Female	60.29	55.45
Male	39.71	44.55
Total	100%	100%

Out of 300 students who were asked to participate in the questionnaire, 246 students filled it out adequately and entered the final sample (effective response rate 82%). By groups, it was 136 out of 170 students of the first year, and 110 out of 130 students of the fourth year.

Age – the sample involved the students between the ages of 18 and 27, the average age being 20.8 (19.13 for the first group, and 22.63 for the second group).

Educational qualifications – all participants in the questionnaire graduated from the fourth-year secondary school, mostly grammar school (39.70% of the first year students and 43.63% of the fourth year students).

Gender distribution – since more than a half of the participants were females (58.1%), we may conclude that they are more sensitive to environmental issues than males.

The sample representativeness – the questionnaire involved most first-year and fourth-year students of the Faculty of Security Studies. Since the sample dispersal was slight, the authors consider the sample representativeness satisfactory for the analysis of attitudes towards environmental crime of future security managers.

#### **4. Analysis of research findings and discussion**

Modern humans, through the system of education and by means of mass communication, receives information, gains knowledge, learns facts and in that way creates a system of values, attitudes, beliefs and perception of the world. Therefore, one of the basic questions referred to the information about environmental issues.

##### *4.1. Question no.1 – Information about environmental issues*

As far as the presence of the subject of the environment in media is concerned, it must be pointed out that “the Republic of Serbia has 72 television and over 300 radio stations, 14 daily newspapers, 14 weeklies and 43 magazines. The presence of the environmental issues in the total programme content does not exceed one percent. Good examples of the radio and TV shows covering the subject of the environment are ‘Čekajući vetar’ – *Waiting for the Wind* (Radio Belgrade 2, 30 years), ‘Pod staklenim zvonom’ – *Under the Glass Bell* (Radio Novi Sad, 15 years). Novi Sad Television (RTV Vojvodina) seriously dealt with the subject of the environment within its Educational programme ‘Čuvari planete’ – *Guardians of the Planet* for almost a decade (2003-2011) and ‘Zeleni sat’ – *A Green Watch* (2005-2014, to the end of March, 130

episodes)" (Jovanović and Aćimović, 2014, p. 95).

In order to take adequate steps in the environmental education of safety managers, it was important to find out how much and in what way students receive information about the environment. Hence, we were interested in what way students learn about environmental issues 1 – newspapers (press), 2 – television (TV), 3 – internet, 4 – other.

**Table 2.** *The students' answers to question no. 1*

Answers	Percent of student's answers	
	I year	IV year
TV	58.82	59.09
Internet	53.68	48.18
Press	5.88	16.36
Other	3.68	6.36

The obtained data showed that there was no big difference as regards information gaining on environmental issues between the first-year and fourth-year students. However, the questionnaire showed that the final-year students use newspapers more than the first year students do as the source of information about the environment.

In addition, it was interesting to analyze correlation between environmental condition assessment and evaluation of the educational influence, but no significant correlation was determined.

#### *4.2. Question no. 2 – Evaluation of the influence of environmental education*

Apart from the questions regarding the information about current environmental issues, the questionnaire comprised the questions relating to the knowledge about the environment. The answers to these questions show that the final-year students' knowledge about environmental safety is more professional than of their younger fellow students.

Since environmental subjects are present at all levels of education, the examinees were able to evaluate their education by answering the question: 'Evaluate how much your environmental education has influenced your comprehension of environmental issues: 1 – not at all, 2 – to a small degree, 3 – to an average degree, 4 – to a great degree, 5 – remarkably.' The answers in percentage are presented in the Table 3. Standard deviation, mode and mean values for this question are 0.94, 3 and 3.11 for the first year students, and 0.85, 4, and 3.44 for the fourth year students respectively ( $p < 0.05$ ,  $d = 0.37$ ).



**Table 3.** Evaluation of the influence of environmental education

Grade	Percent of student's answers as regards influence of environmental education	
	I year	IV year
1	4.41	1.82
2	22.06	11.82
3	35.29	32.73
4	34.56	42.27
5	3.68	6.36
Total:	100%	100%

As the Table 3. shows, almost half of the final year students (48.87%) rate environmental education as remarkably influential or influential to a great degree. That is the case with about 38% of the first year students.

#### 4.3. Question no. 3 – Evaluation of the environmental condition

The students were asked to evaluate the environmental changes on the basis of their professional knowledge and their own perception of the environment (grades: 1 – not at all, 2 – to a small degree, 3 – to an average degree, 4 – to a great degree, 5 – very much endangered). The percentage of students' answers are presented in the Table 4., and standard deviation, mode and mean values for this question are 0.73, 2 and 2.36 for the first year students, and 0.61, 2 and 2.33 for the fourth year students, respectively.

**Table 4.** Total evaluation of the environmental condition

Grade	Percent of student's answers as regards evaluation of the environmental condition	
	I year	IV year
1	1.47	0.00
2	2.21	0.91
3	36.03	38.18
4	51.47	54.55
5	8.82	6.36
Total:	100%	100%

It is evident that the students are generally aware of the environmental endangerment, although the first-year students had a slightly different view of the endangerment, but there was no statistical significance.

#### 4.4. Question no. 4 – Evaluation of the state of the environment according to the environmental areas

It was interesting to compare the level of the development of environmental awareness and evaluation of the current state of environment through a set of indicators (water, air, soil, and the animal and plant life).

According to the first-year students' opinion (Table 5.), air and water are the most endangered elements while soil, as the basic element of the environment, is considered to be less endangered. Such perception is the consequence of reduced activities of responsible authorities as regards the soil protection, as well as the deep-rooted belief that soil is a renewable resource. Indeed, soil is a relatively renewable resource, but not entirely.

Table 5 also shows the fourth-year students' attitudes toward the evaluation of the state of the environment. Evidently, their well-balanced attitude toward the issue is based on their belief that all aspects of the environment are equally important and that the environment should be observed as the entirety since all its elements are inextricably interwoven. The only statistically significant difference ( $p < 0.05$ ) is in the answers related to the evaluation of the air endangerment, although the effect size was small ( $d = 0.02$ ).

**Table 5.** *Evaluation of the state of the environment according to the environmental areas (percentage of answers and mean values)*

Grade	Water		Air		Soil		Flora		Fauna	
	I y. (%)	IV y. (%)	I y. (%)	IV y. (%)	I y. (%)	IV y. (%)	I y. (%)	IV y. (%)	I y. (%)	IV y. (%)
1.	0.74	0	0.74	0.91	0.74	0	2.21	0	1.47	0.91
2.	8.82	6.364	8.09	8.18	16.18	14.54	12.50	10.9	16.18	17.27
3.	30.15	30	33.09	52.72	47.79	57.27	50.00	54.5	47.79	53.64
4.	52.21	53.64	50.00	30.91	30.88	26.36	30.88	30.9	25.74	24.55
5.	8.09	10	8.09	7.27	4.41	1.81	4.41	3.64	8.82	3.636
<b>Mean</b>	<b>3.58</b>	<b>3.67</b>	<b>3.56</b>	<b>3.54</b>	<b>3.22</b>	<b>3.15</b>	<b>3.23</b>	<b>3.27</b>	<b>3.24</b>	<b>3.13</b>

Standard deviation and mode values for this question are given in Table 6.

**Table 6.** Standard deviation and mode values for question no. 4

Year	Water		Air		Soil		Flora		Fauna	
	SD	Mode	SD	Mode	SD	Mode	SD	Mode	SD	Mode
I	0.79	4	0.78	4	0.79	3	0.80	3	0.88	3
IV	0.74	4	0.77	3	0.67	3	0.70	3	0.76	3

This research shows that the students of the Faculty of Security Studies, future security managers from 18 to 27 years of age, possess a well-grounded knowledge about environmental protection. However, a slight difference (discrepancy) between the answers of the first and fourth-year students requires further observation. Since environmentalism is present in the programmes at all levels of education, we may deduce that the students gained relatively good knowledge about the environment in the course of their primary and secondary education. On the other hand, we may presume that environmental education at the degree-granting level (faculty level) is not adequate, which requires more detailed further analyses of curricula, teaching methods, educators' qualifications, students' motivations with regard to environmental issues.

#### 4.5. Question no. 5 – Experiences regarding environmental crime

Although aware that facing any kind of law breaking may cause certain psychological effects, no matter whether perpetrators, victims or witnesses are concerned, the authors were interested in the examinees' experiences regarding environmental crimes. The aim of the question was to determine whether the students, based on previously gained knowledge, were able to recognize crimes endangering the environment.

Table 7 shows the percentage of the first-year students who were either witnesses of environmental crimes or saw the consequences of such crimes. The students were also asked whether they knew anyone who had witnessed environmental crimes or had seen the consequences of such crimes. Only 14.71% of the first-year students claim that they have not had such experience. This result indicates that these students either have not witnessed or recognized such acts.

**Table 7.** Experiences regarding environmental crime

Answer	Percent of answers	
	I year	IV year
No exper.	14.71	14.55
Heard of cons.	36.03	37.27
Heard of exec.	30.88	26.36
Witness the cons.	72.06	63.64
Witness the exec.	30.15	19.09

Table 7 also shows the fourth-year students' answers in percentages. There is an evident difference (approx. 10%) between the first and fourth-year students claiming to have been the witnesses of environmental crime execution. This result may indicate that the first-year students had gained substantial environmental knowledge in the course of their primary and secondary education, and therefore were able to recognize such acts. Taking into account the generation gap, we may claim that the presence of such subjects in educational programs has increased over the years. Of course, this result may indicate that the first year students are more often in open areas and hence have more opportunities to witness such acts.

#### *4.5. Questions no. 6 and 7 – The importance of the authorities in charge of the prevention of and fight against the environmental crimes*

The questionnaire involved questions relating to the students' knowledge about the forms of prevention of and fight against the environmental crimes. As far as the prevention is concerned, the students were asked to evaluate the impact of particular authorities (international organizations, the Parliament, the Government, courts, the police, inspection agencies, industry, the media, NGOs, citizens' associations and individuals) on the prevention of the environmental crimes. Their evaluation ranged from 1 – no influence at all to 5 – exceptionally significant influence. The answers of the students are presented in Table 8.

**Table 8.** *The importance of the authorities in charge of the prevention of environmental crime – mean values*

Subj.	Mean values	
	I year	IV year
Int.Or.	3.20	3.69
Parl.	2.58	2.77
Gover.	2.80	2.81
Courts	2.66	2.71
Police	3.04	2.90
Insp.	3.50	3.47
Indus.	3.11	3.00
Media	3.25	3.34
NGOs	3.15	3.64
Cit. As.	3.14	3.40
Individ.	3.21	3.20

Although the answers to these questions are almost identical, we may observe that the fourth-year students think that international and non-governmental organizations, as well as citizens' associations have more influence on the prevention of environmental crime than their first-year fellow students do. The p value for these answers is less than 0.05, with the effect size (d) for the first two factors is about 0.50, and for the citizens' association is a 0.27. We can conclude that students have gained those opinions through the educational courses at the university. On the contrary, the first-year students are of the opinion that the police influence

on the prevention more than their colleagues from the fourth year think, although there is no statistical significance ( $p > 0.05$ ). It is both interesting and upsetting that most examinees consider individuals incapable of influencing the prevention of the acts of environmental crime.

Moreover, it is also particularly interesting that both groups of the examinees think that the Parliament, as the supreme legislative body, has little influence on the prevention of environmental crime.

The students' answers to the question whether they know what authorities are in charge of the fight against environmental crime are shown in Table 9.

**Table 9.** *The percentage of the students who know what authorities are in charge of the fight against environmental crime*

Answer	Percent of student's answers	
	The first year	The fourth year
Yes	24.25	64.55
No	75.75	35.45
Total	100%	100%

As we may see from the Table 9. there is a considerable difference between the answers of the two groups of students. This result implies that, during their academic education, students gain knowledge with regard to the authorities in charge of the fight against environmental crime in general.

#### 4.6. Question no. 8 – The causes of environmental crimes

In order to further investigate the knowledge and attitudes as regards environmental crime, the students' were asked to rate the causes of environmental crime: 1 – not at all important as a cause, 2 – slightly important, 3 – average, 4 – very important, 5 – extremely important. As main causes were given: 'A. citizens are not well informed/educated about environmental crime; B. Governmental institutions' officials are not well informed/educated about environmental crime; C. There is no political will for solving those issues; D. Public is not interested in solving environmental crimes; E. Great possibilities for corporations/individuals to get financial gain; F. There are little successfully solved crimes/or crimes haven't been reported; G. Small punishments for those who are caught in doing such crimes.' In addition, there was an option for students to give their own proposal of possible causes. Average ratings as regards these questions are given in Table 10. Standard deviation (SD), mode (M) and Cohen's effect size (d) values for these questions are presented in Table 11.

**Table 10.** *Students' average ratings of the possible causes of environmental crime*

Cause	Mean values	
	The first year	The fourth year
A.	3.60	3.87
B.	3.46	3.68
C.	3.94	4.28
D.	3.96	4.12
E.	3.87	4.32
F.	3.91	4.16
G.	4.20	4.30

**Table 11.** *SD, Mode and effect size values for evaluation of causes of environmental crime*

Cause	Standard deviation, mode, d				
	The first year		The fourth year		d
	SD	M	SD	M	
A.	1.08	4	0.99	4	0.26
B.	0.98	4	0.94	4	0.17
C.	0.93	4	0.80	5	0.43
D.	0.94	4	0.77	4	0.24
E.	0.96	3	0.89	5	0.46
F.	0.94	4	0.79	4	0.30
G.	0.84	5	0.87	5	0.15

As the tables show, according to fourth year students' opinions the most important cause for environmental crime is financial gain, followed by small punishments. As we can see from the tables, students of the first year gave less importance to all proposed causes. There were no recommendations for other causes, although a few students from both groups thought that some other reason exists and they rate it high.

#### 4.7. Question no. 9 – Comments and suggestions

The questionnaire had extra space for the students' comments and suggestions for the improvement of the environmental condition. As the research was mainly focused on students' attitudes towards environmental crime, we may say that this was the most important part of questionnaire. The percentages of students who gave their comments are given in Table 12.

**Table 12.** *The percentage of the students who gave their comments*

Answer	Percent of student's comments	
	The first year	The fourth year
Comment	26.47	56.36
No comm.	73.53	43.64
Total	100%	100%

As Table 12. shows the fourth-year students gave their comments more openly than their younger colleagues did. The reason for this may be the fact that they are more mature and experienced than the students who have just entered the college. The effect size for the two groups was 0.80, with the  $p < 0.05$ , which undoubtedly led us to conclusion that education during undergraduate studies as regards environmental crime provided students with critical thinking and proactive behaviour. Students' suggestions and recommendation for fighting and preventing environmental crimes are given in Table 13.

**Table 13.** *Students' comments and suggestions*

Comments	Percentage (%)		
	The first year	The fourth year	Total
Raising awareness	22.22	45.16	67.38
Harsher punishments	47.22	33.87	81.09
Public functions	8.33	20.97	29.3
Education	5.56	9.87	15.43

According to the opinion of the fourth-year students, the most important thing for the prevention of environmental crime is raising citizens' awareness at all levels. Though more than 50% of the fourth year students gave comments, the percentage of suggestions as regards raising awareness when compared to the whole sample of this group is 25%. Additionally, students thought that was possible to raise awareness through the educational systems and media. Among other things, they suggest harsher punishments for those endangering the environment. Compared to the whole sample, this makes 19%, while the suggestions of the first year students as regards harsher punishments make 12.5% of the sample. They also thought that the authorities in charge of fight against environmental crime did not perform their duties properly, and that there was a serious need for improvements in this area. About 10% of the fourth-year students who gave comments stated that the educational programs relating to the ecology and environmental protection should be improved, but did not think that education and awareness raising correlate.

It should also be mentioned that male students in both groups were more ready to comment and make suggestions than their female colleagues. Bearing in mind that in both groups there

were more females, it is obvious that males are more courageous and ready to criticize the conditions in the state and society.

## 5. Conclusions

Environmental crime, especially corporate environmental crime, is the worst kind of crime. It does not only affect natural resources, or people who live around them. It directly and irreversibly affects the entire human population and life on Earth. Additional, and probably the worst effect of these acts, is that they directly impose a threat to future generations. One more thing, the acts of environmental crime transcend boundaries, and there is growing and disturbing evidence of international environmental crime. That is why the fight against and prevention of environmental crime should be at the agenda of all countries and world regions.

Security management, in particular, is very important link between corporate environmental crime and states' policies and normative acts. That is why environmental awareness of future security managers is of vital importance for environmental crime suppression. The authors are of the opinion that the results obtained by empirical research may help the researchers reconstruct the existing models of environmental studies, as well as create new models of studies aimed at raising public awareness on environmental crime.

This research showed that the students of the Faculty of Security Studies, future corporate security managers from 18 to 27 years of age, possessed a well-grounded knowledge about environmental protection. However, a slight difference between the answers of the first and fourth-year students as regards environmental knowledge in general (there was no statistical significance) requires further observation. Since environmentalism is present in the programs at all levels of education, we may deduce that the students gained relatively good knowledge about the environment in the course of their primary and secondary education. On the other hand, we may presume that environmental education at the degree-granting level (faculty level) is not adequate, which requires more detailed further analyses of curricula, teaching methods, educators' qualifications, students' motivations with regard to environmental issues, etc.

One feature identified was extremely alarming: the fact that both groups of students did not recognize the role that individuals and citizens' associations can have in prevention of environmental crime. This fact deserves further and detailed analysis. It could be the consequence of lack of educational programs as regards mechanisms of environmental protection. In addition, this kind of result could be because the Republic of Serbia is almost constantly in crises, and general population is apathetic about many things, including environmental protection. Of course, this is a positive indicator of very low environmental culture of the questioned students. It surely would be interesting to test the opinions of different groups of young people in Serbia, neighbouring countries, as well as countries that are in similar development phase as Serbia. Only based on those results we would be able to conclude if there is deep environmental crisis within global society.

However, analysis of students' knowledge and attitudes towards environmental crime shows that students of final year have gained more experience during their university education, and hence comprehend more clearly this security and safety issue. Since the research question was to establish if the students of final year had more knowledge on combat against environmental crime and its' prevention compared to first year students, we may say that the answer is positive.



Certainly, the authors are well aware of the fact that it is not possible to define acceptable programs of environmental education only based on empirical researches because achieving the adequate level of environmental culture within the society is a complex process entailing behaviour of all involved participants. Additionally, this process largely depends on the concrete social and cultural circumstances.

This research showed that it is possible to raise awareness of environmental crime among university students through educational programmes. Of course, it would be more effective if the local authorities took some role in building and maintaining the environmental culture within their communities.

It is impossible to prevent environmental crime just by education and public awareness. Of course, these elements are very important, especially in the terms of fighting against this problem, revealing and punishing the perpetrators. However, in order to systematically prevent and discourage these kinds of acts, it is most important to achieve successful cooperation and coordination of all parties in charge. First, there is a need for countries to pass the criminal laws and normative acts in the field of environmental crime prevention. Further, it is necessary to establish cooperation with the bodies of different international institutions that are in charge of environmental crime prevention, such as United Nations, Interpol, and the European Union. This initiative should be globally accepted and educational programmes as regards environmental crime should be made in accordance with findings of these institutions.

As for implications for further research, it would be important to conduct similar research in different and/or similar educational institutions in different countries. In addition, authors believe that these kinds of research should gather experts in different fields such as environmental and educational management, criminology, criminalistics and criminal forensics, corporate management, policy makers etc. in order to combine their knowledge and expertise and try to build better society, which would in turn leave our planet in better condition for future generations.

## References

- Albanese, J. S., and Pursley, R. P. (1993). *Crime in America: some existing and emerging areas*. Englewood Cliffs: Regents/Prentice Hall.
- Álvarez, P., and Vega, P. (2009). Actitudes ambientales y conductas sostenibles. Implicaciones para la Educación Ambiental (Environmental attitudes and sustainable behaviors implications of environmental education). *Revista de Psicodidáctica*, 14, 2, 245-260.
- Álvarez-Suárez, P., Vega-Marcote, P., Garcia-Mira R. (2013). Sustainable consumption: a teaching intervention in higher education. *International Journal of Sustainability in Higher Education*, 15, 1, 3-15.
- Ayres, I., and Braithwaite, J. (1992). *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.
- Burns, R. G., and Lynch, M. J. (2004). *The sourcebook on environmental crime*. New York: LFB Publishers.

- Clinard M. B., and Yeager, P. C. (1980). *Corporate Crime*. New York: Free Press.
- Findak, V. (2014). Kinesiology Education – a Challenge for Modern Theory and Practice in Education. *Croatian Journal of Education*, 16, 3, 623-641.
- Frank, N., and Lynch, M. J. (1992). *Corporate crime, corporate violence*. New York: Harrow and Heston.
- Garcia-Mira, R., Real, J. E., and Romay, J. (2005). Temporal and spatial dimensions in the perception of environmental problems: an investigation of the concept of environmental hyperopia. *International Journal of Psychology*, 40, 1, 5-10.
- Hungerford, H. R., and Volk, T. L. (1990). Changing Learners Behavior through Environmental Education. *The Journal of Environmental Education*, 21, 3, 8-21.
- Jarell, M. L. (2007). *Environmental Crime and the Media: News Coverage of Petroleum Refining Industry Violations*. New York: LFB Scholarly Publishing LLC.
- Jovanović, Dj., and Aćimović, D. (2014). Medijska zastupljenost tema iz oblasti zaštite životne sredine (Media coverage of environmental issues). Paper presented at International scientific conference: Sustainable Industry and Environment, April 23-25, Belgrade.
- King, R. J. H. (1998). Educational Literacy in the Context of Environmental Ethics. Paper presented at the Twentieth World Congress of Philosophy, August 10-15, Boston, available at: <https://www.bu.edu/wcp/Papers/Envi/EnviKing.htm>, accessed 20.01.2015.
- Kollmuss, A., and Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8, 3, 239-260.
- Mayo, D. G., and Hollander, R. D. (eds.) (1991). *Acceptable evidence: science and values in risk management*. New York: Oxford University Press.
- McCrie, R. D. (2001). *Security Operations Management*. Boston: Butterworth-Heinemann.
- Rickinson, M., and Lundholm, C. (2010). *Exploring Student Learning and Challenges in Formal Environmental Education*. In R. B. Stevenson, & J. Dillon (Eds.), *Engaging Environmental Education: Learning, Culture and Agency* (pp. 13-30). Rotterdam: Sense Publishers.
- Saylan, C., and Blumstein D. T. (2011). *Failure of Environmental Education (and How We Can Fix It)*. Berkeley: University of California Press.
- Scott, W., and Gough, S. (2003). *Sustainable development and learning: Framing the issues*, London: Routledge Falmer.
- Šehović, S. (2012). Uloga ekološkog obrazovanja u zaštiti i unapređivanju životne sredine. *Danubius Journal of Regional Cooperation*, available at: <http://danube-cooperation.com/danubius/2012/06/18/uloga-ekoloskog-obrazovanja-u-zastiti-unapredivanju-zivotne-sredine/>, accessed 15.01.2015.
- Simpson, S. S., Gibbs, C., Rorie, M., Slocum, L. A., and Cohen, M. A. (2013). An Empirical Assessment of Corporate Environmental Crime-Control Strategies. *Journal of Criminal Law and Criminology*, 103, 1, 229-378.

- Situ, Y., and Emmons, D. (2000). *Environmental crime: the Criminal Justice System's role in protecting the environment*. Thousand Oaks: Sage.
- Veisi, H., and Zarandian, A. (2011). Assessing Environmental Educational Needs of Urban Co-councils of Tehran, Iran. *International Online Journal of Educational Sciences*, 3, 1, 149-160, available at: [http://www.iojes.net/userfiles/Article/IOJES\\_350.pdf](http://www.iojes.net/userfiles/Article/IOJES_350.pdf), accessed 20.01.2015.
- Yasvin, V. A. (2006). *Building an environmental culture is not reduced to environmental education*. In V. Zakarhov (Ed.), *Environmental Education and Culture - Bulletin Towards Sustainable Russia No. 34* (pp. 7-10). Moscow: Center for Russian Environmental Policy.
- Ziadat, A. H. (2010). Major factors contributing to environmental awareness among people in a third world country/Jordan. *Environment, Development and Sustainability*, 12, 1, 135-145.

#### Sažetak

**Inspiracija za rad i problem(i) koji se radom oslovljava(ju):** Ovaj članak analizira prepričana iskustva bivših logoraša koji su kao civili odvedeni u koncentracione logore početkom rata u Bosni i Hercegovini 1990-tih godina.

**Ciljevi rada (naučni i/ili društveni):** Cilj članka je opisati prepričane rituale socijalne interakcije poslije vremena provedenog u logoru, kao i identifikovati kako su te interakcije simbolično drammatizovane.

**Metodologija/Dizajn:** Empirijski materijali za ovu studiju su prikupljeni primjenom kvalitativnih intervjua provedenih sa devet bivših logoraša i četiri bliska rođaka.

**Ograničenja istraživanja/rada:** Analizirane empirijske sekvence prikazuju stvaranje identiteta žrtve u kontrastu sa drugim kategorijama, primjerice u kontrastu sa kategorijom čuvara logora. Bivši zatočnici u logorima prezentiraju svoj identitet žrtve kroz poniženje i kroz disocijaciju od postupaka čuvara logora.

**Rezultati/Nalazi:** Bivši logoraši predstavljaju svoju novu (izmijenjenu) moralnu karijeru kao rezultat boravka u logoru i kao rezultat rituala poniženja i rituala moći. Značaj čuvara u ritualima poniženja i moći je naglašen tako što bivši logoraši sebe predstavljaju kao ponižene i demoralisane.

**Generalni zaključak:** U svojim pričama o zločinima i zlostavljanju u koncentracionim logorima, logoraši odbacuju postupke čuvara kao i taj naziv 'logoraš'. Priče o ritualima sile i moći pokazuju da je prostor za individualizam u logorima bio veoma ograničen. Ipak, rituali otpora i statusa su naizgled, zajedno sa adaptacijom na uvjete u logoru, generalni prostor za povećanu individualizaciju. Imati malo kontrole i moć pružanja otpora naizgled je dalo logorašima osjećaj časti i samopoštovanja, naročito poslije rata. Njihove priče u današnjici predstavljaju jedan oblik nastavljenog otpora.

**Opravljanost istraživanja/rada:** Disocijacija od postupaka čuvara logora i od naziva/statusa 'logoraš' se može protumačiti kao izraz deritualizacije, u odnosu na prijeratna iskustva. Deritualizacija je vidljiva i kombinaciji sa ostalim interakcijama, ali se analitički može izolirati u

pričama ispitanika kroz analizu rituala poniženja, rituala moći, rituala otpora i rituala statusa. Kroz ovu analizu je jasno vidljiv gubitak identiteta logoraša, priznavanje identiteta drugoga, emocionalni angažman, i različiti simboli otpora.

### **Ključne riječi**

poniženje, emocije, stigmatizacija, uzvišeni objekti, deritualizacija

### **About the Authors**

Kristina Radojević, PhD is teaching assistant at Faculty of Security Studies of the University of Belgrade.

Email: [kristina\\_radojevic@fb.bg.ac.rs](mailto:kristina_radojevic@fb.bg.ac.rs)

Aleksandra Ljuština, PhD, is associate professor at Academy of Criminalistic and Police Studies.

Email: [aleksandra.ljustina@kpa.edu.rs](mailto:aleksandra.ljustina@kpa.edu.rs)